

The background of the cover features a series of nested, parallel lines that form a series of right-angled, stepped paths. The lines are in various shades of blue, ranging from a light sky blue to a deep navy blue. The paths start from the top left and move towards the bottom right, creating a sense of depth and movement.

# Reopening the Office Best Practices

 **BUILDINGS** eHandbook

# **BUILDINGS** eHandbook

## A Comprehensive Return-to-Work Guide for Facility Executives

The COVID-19 global pandemic resulted in an unprecedented number of commercial building closures to help contain the spread of the virus and save lives. From schools to hotels and restaurants to public spaces, sheltering in place and working from home quickly became the “new normal.”

As a result, many facilities sat vacant and shuttered for weeks or even months, which creates all sorts of consequences—some predictable, like the need to screen visitors for COVID-19 symptoms prior to reentry, and some that facility executives may not have anticipated, like potential issues with water.

Office are slowly beginning to reopen, however, and the need to do so safely to protect occupant health has never been more paramount, which is why we’ve put together this eBook on best practices for reopening corporate spaces following COVID-19. Whether it’s addressing piping or pest control, air filtration or cleaning protocols, there is a long to-do list that facility managers will need to check off prior to opening safely.

In this eBook, we’ve assembled a preview of numerous guidelines and white papers with practical information on getting your workplace ready for reopening from some of the most respected organizations and architectural firms including direct links to download the complete reports. You’ll also find case studies and products that can help pave the way for safely reopening your office

Navigating this eBook is easy; simply scroll through the pages or select a topic from the Table of Contents to jump to the corresponding section. Or, you can click on the “Click for Contents” tab at the top right of any page to jump back to the TOC.

We hope you find the information contained in this eBook helpful in your efforts to safely reopen your office as we look forward to getting back to business.



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# CONTENTS

[CLICK ON TITLE TO GO TO PAGE](#)

## **PART 1: WORKING FROM HOME: DATA & FACTS**

Back to the Office: U.S. Work from Home Survey 2020 (Gensler).....	6
The Only Constant Is Change (ONE Global Design).....	10

## **PART 2: GUIDES FOR REOPENING**

Guidance on Preparing the Workplace for COVID-19 (OSHA) .....	15
Re-Activating Your Building Post COVID-19 (Stantec).....	19
Back to the Office: Return Strategies for the Workplace and Office Buildings (Gensler).....	22
Road Map for a Return (Perkins and Will) .....	24
Work After COVID-19: Scalable Workplace Solutions (NELSON) .....	26
Recovery Readiness: A How-To Guide for Reopening Your Workplace (Cushman Wakefield).....	29
A New Mindset (National Office).....	36
Evaluating Space Planning Strategies Following Workplace Re-entry (iOffice) .....	39
New Safe Distance Flooring Line Helps Businesses Re-Open (Creative Edge) .....	42
Guide to Properly Clear (Flush) Commercial Restrooms Prior to Re-Opening Your Building (Sloan) .....	45

[CONTENTS continued >](#)

[CLICK ON TITLE TO GO TO PAGE](#)

## **PART 3: WELLNESS & CLEANING**

Strategies from the WELL Building Standard To Support the Fight Against COVID-19 (IWBI).....	48
The Case for a Hands-Free Workplace (HOK) .....	53
Risks Associated With Reduced Use of Building Water Systems (Chicago Faucets).....	56
Recommended Commercial Cleaning & Infection Control (OpenWorks).....	59
The Importance of Handwashing in Public Restrooms (Bradley Corp.)....	62
Health & High-Performance Fabric (Crypton) .....	65
Antimicrobials: What They Are & Types (Designtex) .....	67
An Air Filtration Primer for Building Owners and Developers (Gensler) ..	71
The Human Costs of Improper Air Flow (Permatron).....	74
How HVAC Can Support Employee Health (HOK) .....	77
Filtration and HVAC Upgrades to Mitigate Infection Transmission (Dynamic Air Quality Solutions) .....	81
Outdoor Spaces: The New Opportunity to Activate and Invest in Wellbeing (Landscape Forms).....	84

## **PART 4: CASE STUDIES**

A Day in the Life: Going Back to Work in China (Gensler).....	87
Wynn Las Vegas Unveils Health and Sanitation Plan, Paving Way for Vegas Strip to Slowly Reopen (Meetings Today).....	90
Northwestern Memorial Hospital and Max Burger (Excel Dryer) .....	93

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

95

# PART 1

## WORKING FROM HOME: DATA & FACTS

[CLICK ON TITLE TO GO TO PAGE](#)

[Back to the Office: U.S. Work from Home Survey 2020 \(Gensler\)..... 6](#)

[The Only Constant Is Change \(ONE Global Design\)..... 10](#)

# Back to the Office

**Only 12% of U.S. workers want to work from home full-time. Most want to return to the workplace, but with critical changes.**

## DO YOU PREFER TO GO BACK TO THE OFFICE OR CONTINUE TO WORK FROM HOME?



They want more space (less density) for social distancing and an assigned workspace. These measures can also improve the performance of the workplace, addressing issues of noise and distraction that were already diminishing effectiveness.

Their spaces could be used for other functions when not in use as workspaces, given their intermittent need. Ample social distancing space, and recommended cleaning protocols, will still be crucial.

**The lessons learned from the experience of working from home during COVID-19 offer an unprecedented opportunity to rethink the future of the physical workplace.** Only one in 10 U.S. office workers had worked from home regularly before this experience, and less than a third had the choice to work from home. While many of the effects of COVID-19 on the workplace are still unfolding, some points are emerging clearly from our data:

- 1) Most workers want to come back to the office.**
- 2) Workers expect crucial changes to the workplace before they're comfortable returning.**

The changes that will make people comfortable coming back to the office

**METHODS** The survey of 2,300+ U.S. workers was conducted online via an anonymous, panel-based survey from April 16th to May 4th, 2020. Respondents were required to be working full time for a company of 100 or more people, to have worked in an office environment prior to COVID-19, and to be currently working from home. Responses were evenly distributed across 10 industries and represent a wide range of seniority levels, roles, ages, and geographies across the U.S.

also offer an opportunity to address problems that already existed in the physical workplace, from issues with noise and density, to challenges related to mobility and unassigned seating.

**The preference for working in the office is consistent with Gensler’s workplace research data collected regularly since 2005. Workers with choice in where to work prior to COVID-19 spent 72% of their average work week in the office compared to only 12% working from home, overwhelmingly choosing the office as their preferred place to work.**

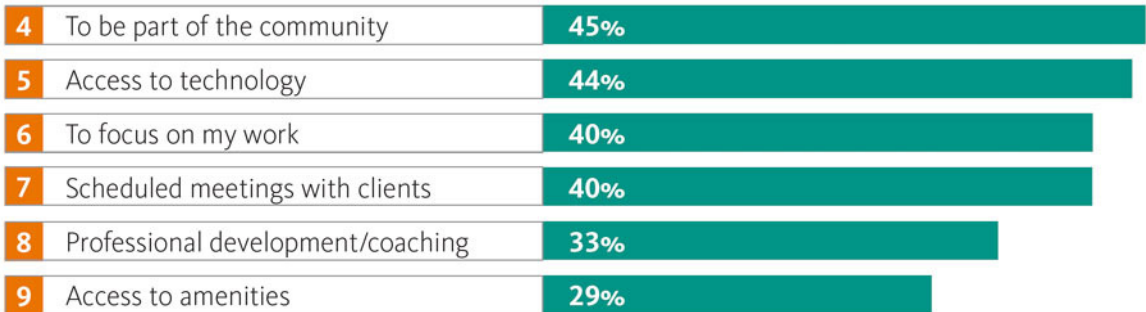
**What do people miss from the office? Meeting and connecting with colleagues face-to-face and access to the tools and spaces that support their work.**

When employees do come to the office, they expect it to be for collaboration and social connection. Nearly all workers list people focused reasons as most important for coming into the workplace, with little variation across industries. Despite the rapid adoption of virtual collaboration technologies, people still clearly value face-to-face interactions over virtual ones, in many cases, and miss the company of their coworkers.

When asked what they miss most about working from the office, three out of four survey respondents said “the people.” Workers also report that certain activities, such as collaborating and staying informed about what others are working on, are harder to do at home, underscoring the value of physical presence.

### The top reason employees want to come to the office: the people.

Respondents were asked to rank what they believe to be the most important reason(s) for coming into the office.



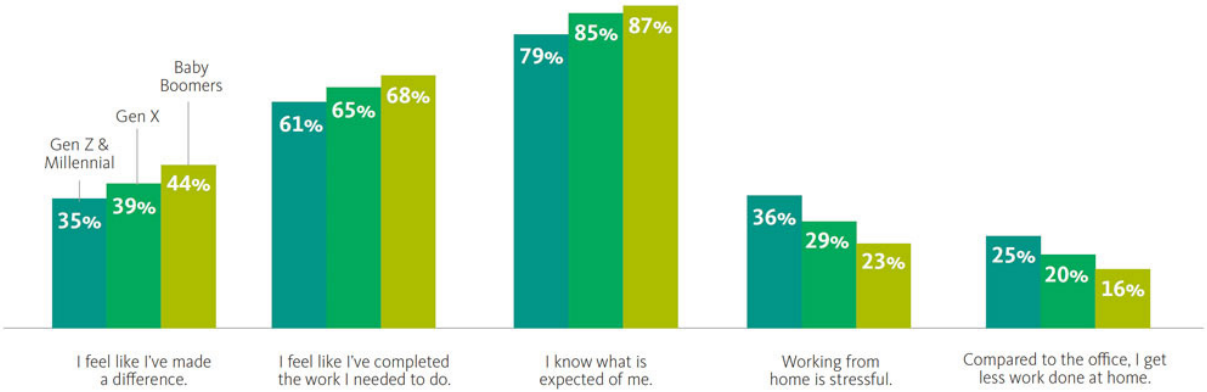
### Younger generations are less productive at home and less satisfied with the work-from-home experience.

Millennial and Gen Z workers should have had a leg-up in the transition to working from home, as they tend to have more experience working and socializing virtually and are often associated with the work-anywhere lifestyle already on the rise prior to COVID-19. However, younger generations came into this experience having worked from home less often in the past and, overall, with less optimal work-from-home environments.

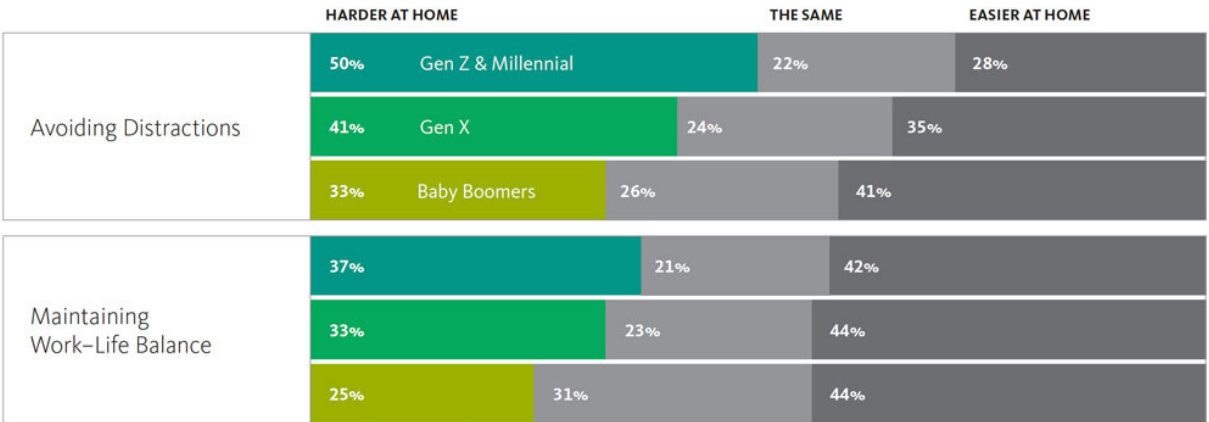


Despite their technological preparedness for mobile work, younger workers report a far more challenging experience working from home than their older peers. They are less likely to feel accomplished at the end of a typical day. They are less aware of what’s expected of them and how their work contributes to organizational goals. And they report struggling most to maintain work–life balance and avoid distractions at home.

**Older workers are more likely to feel accomplished at the end of the day; younger workers feel more stressed and report getting less work done.**



**Millennial and Gen Z workers are finding it harder to avoid distractions and maintain work-life balance than their older peers.**



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# The Only Constant is Change

As the entire world is experiencing life altering restrictions and many people are working 100% remote, we believe that people's expectations on the workplace are shifting faster than ever before. Our intent for this study is to gain a deeper understanding of these shifts as organizations prepare to open their doors again. We focused on people's relationship to their work and how needs, perceptions, and styles may have changed based on their time working from home.

These results are drawn from our ONE Global Design Partners across the world and have provided us a few key insights:

- This crisis has humanized our views of each other
- We are hopeful and happy to have work right now, although we may feel less productive
- We are more aware of what we need to be most productive & will continue to want autonomy to influence how we accomplish our work
- Flexibility now and moving forward will be key to regaining a healthy work/life integration
- Technology has increased the accessibility of leadership and colleagues
- Change is accepted, yet there is an importance placed on options, training, and communications

*Courtesy of ONE Global Design*

Although there may be results that cannot be addressed currently, we find it key to be aware and prepared for what may need to be addressed in the future. Our goal is to provide leadership with these insights to help them benchmark with other firms as they continually evaluate their plans and to continuously find ways to partner with clients. We also hope that team members will learn how their counterparts around the world are assessing and responding to this situation.

Follow-up surveys this summer and fall will allow us to gain further insight into the evolving nature of work as we slowly recover and re-enter the workplace.

## Overview

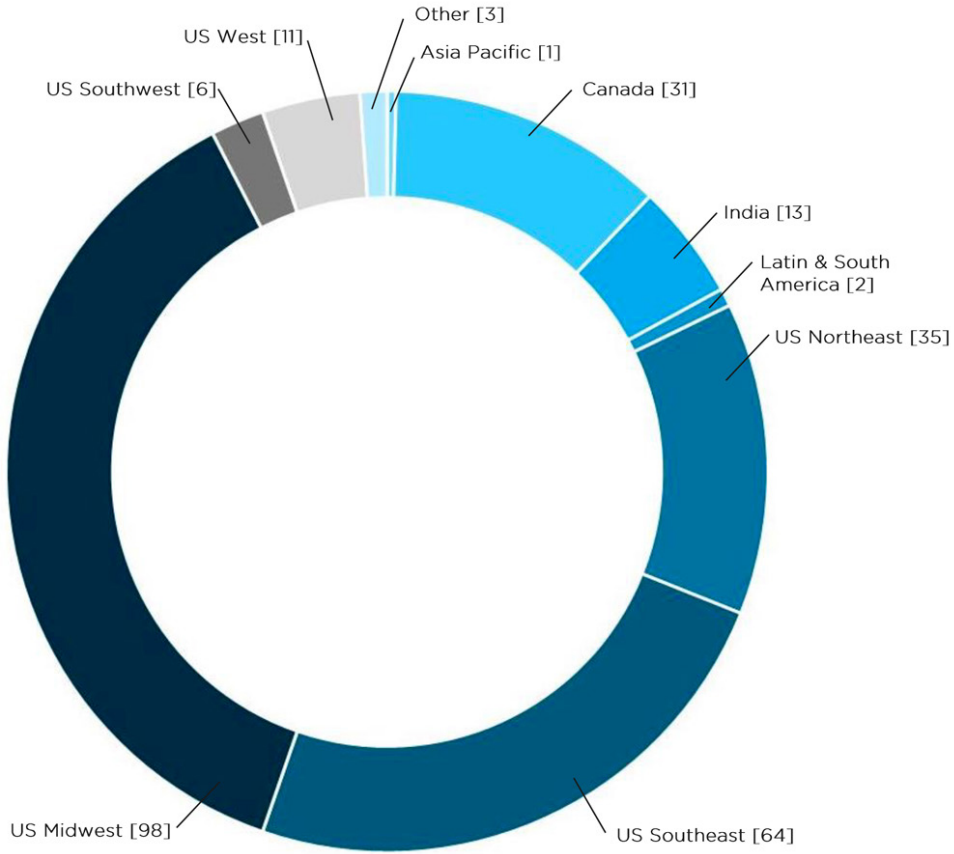
The Workplace Strategy Team of ONE Global Design is directly experiencing impacts of the change to 100% remote work. As we adjusted our personal and professional lives to respond, we were curious how others were doing across the world and how we could use our collective expertise to positively impact the future of work.

As design thinkers, we start with the user experience first, looking at the world through someone else's eyes. We need to think beyond our own biases and gauge how others are handling their day to day lives. Insights are captured within 5 different categories:

- **Health & Wellbeing**
- **Workflow**
- **Technology**
- **Tools**
- **Management Style & Change Readiness**

**Technology has been one of the largest differentiators for how we are responding to and coping with this current pandemic.** Even before physical distancing, we could work, connect with others, learn, read, watch, and share anywhere, anytime, any which way we chose. Since we have temporarily lost this ability to choose, we believe that values are adjusting. The loss of frequent human interaction is allowing everyone to understand where technology cannot replace in-person connections.

**As we re-enter the workplace, organizations will want to address basic needs of safety and belonging, but also align work to purpose - enabling people to be their best and do their best.**

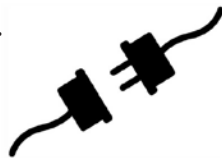


# Health & Wellbeing

Now more than ever, health and wellbeing are at the forefront of people's minds. While this is not a new topic, we've blurred the lines between work and personal lives even further now that we are working in our homes and can be even more connected 24/7.

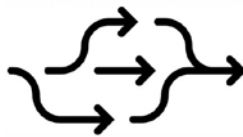
## HOW ARE WE DOING?

On a positive note, despite this time of uncertainty, people are remaining hopeful and finding ways to stay focused & productive. Staying healthy and balanced is a top priority in finding ways to exercise, maintain personal connections, and unplug from technology. The survey results show us that because people have more flexibility and autonomy now, they are gaining a good understanding of when & how they work best and are communicating that to their teams.



**55%**

Want more time to unplug from technology



**#1**

Flexibility is the highest priority as we return to the office



**73%**

Personal connections are most important

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## PART 2

# GUIDES FOR REOPENING

[CLICK ON TITLE TO GO TO PAGE](#)

Guidance on Preparing the Workplace for COVID-19 (OSHA) .....	15
Re-Activating Your Building Post COVID-19 (Stantec).....	19
Back to the Office: Return Strategies for the Workplace and Office Buildings (Gensler).....	22
Road Map for a Return (Perkins and Will) .....	24
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A New Mindset (National Office).....	36
Evaluating Space Planning Strategies Following Workplace Re-entry (iOffice).....	39
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Guide to Properly Clear (Flush) Commercial Restrooms Prior to Re-Opening Your Building (Sloan) .....	45

# Steps All Employers Can Take to Reduce Workers' Risk of Exposure to SARS-CoV-2

This section describes basic steps that every employer can take to reduce the risk of worker exposure to SARS-CoV-2, the virus that causes COVID-19, in their workplace. Later sections of this guidance—including those focusing on jobs classified as having low, medium, high, and very high exposure risks—provide specific recommendations for employers and workers within specific risk categories

## **DEVELOP AN INFECTIOUS DISEASE PREPAREDNESS AND RESPONSE PLAN**

If one does not already exist, develop an infectious disease preparedness and response plan that can help guide protective actions against COVID-19. Stay abreast of guidance from federal, state, local, tribal, and/or territorial health agencies, and consider how to incorporate those recommendations and resources into workplace-specific plans.

Plans should consider and address the level(s) of risk associated with various

worksites and job tasks workers perform at those sites. Such considerations may include:

- Where, how, and to what sources of SARS-CoV-2 might workers be exposed, including:
  - The general public, customers, and coworkers; and
  - Sick individuals or those at particularly high risk of infection (e.g., international travelers who have visited locations with widespread sustained (ongoing) COVID-19 transmission, healthcare workers who have had unprotected exposures to people known to have, or suspected of having, COVID-19).
- Non-occupational risk factors at home and in community settings.
- Workers' individual risk factors (e.g., older age; presence of chronic medical conditions, including immunocompromising conditions; pregnancy).
- Controls necessary to address those risks.

Follow federal and state, local, tribal, and/or territorial (SLTT) recommendations regarding development of contingency plans for situations that may arise as a result of outbreaks, such as:

- Increased rates of worker absenteeism.
- The need for social distancing, staggered work shifts, downsizing operations, delivering services remotely, and other exposure-reducing measures.
- Options for conducting essential operations with a reduced workforce, including cross-training workers across different jobs in order to continue operations or deliver surge services.
- Interrupted supply chains or delayed deliveries.

Plans should also consider and address the other steps that employers can take to reduce the risk of worker exposure to SARS-CoV-2 in their workplace, described in the sections below.



## PREPARE TO IMPLEMENT BASIC INFECTION PREVENTION MEASURES

For most employers, protecting workers will depend on emphasizing basic infection prevention measures. As appropriate, all employers should implement good hygiene and infection control practices, including:

- Promote frequent and thorough hand washing, including by providing workers, customers, and worksite visitors with a place to wash their hands. If soap and running water are not immediately available, provide alcohol-based hand rubs containing at least 60% alcohol.
- Encourage workers to stay home if they are sick.
- Encourage respiratory etiquette, including covering coughs and sneezes.
- Provide customers and the public with tissues and trash receptacles.
- Employers should explore whether they can establish policies and practices, such as flexible worksites (e.g., telecommuting) and flexible work hours (e.g., staggered shifts), to increase the physical distance among employees and between employees and others if state and local health authorities recommend the use of social distancing strategies.
- Discourage workers from using other workers' phones, desks, offices, or other work tools and equipment, when possible.
- Maintain regular housekeeping practices, including routine cleaning and disinfecting of surfaces, equipment, and other elements of the work environment. When choosing cleaning chemicals, employers should consult information on Environmental Protection Agency (EPA)-approved disinfectant labels with claims against emerging viral pathogens. Products with EPA-approved emerging viral pathogens claims are expected to be effective against SARS-CoV-2 based on data for harder to kill viruses. Follow the manufacturer's instructions for use of all cleaning and disinfection products (e.g., concentration, application method and contact time, PPE).

### **DEVELOP POLICIES AND PROCEDURES FOR PROMPT IDENTIFICATION AND ISOLATION OF SICK PEOPLE, IF APPROPRIATE**

- Prompt identification and isolation of potentially infectious individuals is a critical step in protecting workers, customers, visitors, and others at a worksite.
- Employers should inform and encourage employees to self-monitor for signs and symptoms of COVID-19 if they suspect possible exposure.
- Employers should develop policies and procedures for employees to report when they are sick or experiencing symptoms of COVID-19.
- Where appropriate, employers should develop policies and procedures for immediately isolating people who have signs and/or symptoms of COVID-19, and train workers to implement them. Move potentially infectious people to a location away from workers, customers, and other visitors. Although most worksites do not have specific isolation rooms, designated areas with closable doors may serve as isolation rooms until potentially sick people can be removed from the worksite.
- Take steps to limit spread of the respiratory secretions of a person who may have COVID-19. Provide a face mask, if feasible and available, and ask the person to wear it, if tolerated. Note: A face mask (also called a surgical mask, procedure mask, or other similar terms) on a patient or other sick person should not be confused with PPE for a worker; the mask acts to contain potentially infectious respiratory secretions at the source (i.e., the person's nose and mouth).
- If possible, isolate people suspected of having COVID-19 separately from those with confirmed cases of the virus to prevent further transmission—particularly in worksites where medical screening, triage, or healthcare activities occur, using either permanent (e.g., wall/different room) or temporary barrier (e.g., plastic sheeting).
- Restrict the number of personnel entering isolation areas.
- Protect workers in close contact with (i.e., within 6 feet of) a sick person or who have prolonged/repeated contact with such persons by using additional engineering and administrative controls, safe work practices, and PPE. Workers whose activities involve close or prolonged/repeated contact with sick people are addressed further in later sections covering workplaces classified at medium and very high or high exposure risk.

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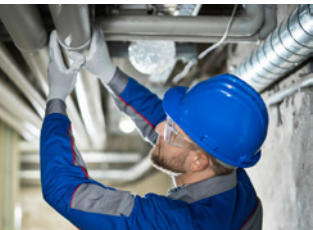
# Reactivating Your Building Post COVID-19

Building re-activation after a period of hibernation requires a thoughtful and considered approach. In the wake of COVID-19, building owners and operators must adapt their buildings to respond. Stantec is here to help you plan your move back into your building and beyond.

We have assembled this quick reference guide to help you start to think about your building systems as you plan for re-occupation.

The following suggestions are general in nature, and intended to be a starting point for discussions about building re-activation. Each organization's and building's needs and limitations are different – contact Stantec for advice specific to your building before implementing changes to your systems.

## BEGINNING RE-ACTIVATION



**Step 1: Plan** – Make a re-activation plan by building, system, and item.

**Step 2: Inspect** – Inspect current state of systems in detail; check for system leaks and water ingress.

**Step 3: Determine** – In the event of partial occupancy, not all building systems may be required; identify which systems require re-activation.

**Step 4: Prioritize** – Prioritize which systems need to be brought back online first.

**Step 5: Review** – Review physical changes to the environment, building, or occupancy arrangements that may have occurred.

**Step 6: Identify** – Identify potential points of failure and what immediate re-activation maintenance may be required, including decommissioning temporary systems, refilling of systems, repairs, etc.

**Step 7: Consult** – Consult with Authorities Having Jurisdiction to determine specific measures required before re-activating. Engage the architect and building engineering team.

**Step 8: Protect** – Consider the safety impacts on facilities maintenance staff and occupants at each stage of your plan.

**Remember**– There is a cost associated with re-activation and some COVID-19 measures may increase running costs and energy consumption.

## PLUMBING SYSTEMS



**Step 1: Review** – Carry out a Legionella risk assessment. Investigate stagnant water systems for risk of contamination.

**Step 2: Flush** – Flush hot and cold water through all points of use to replace all water inside building piping with fresh water. Flush hot water until it reaches its maximum temperature.

**Step 3: Disinfect** – Disinfect hot and cold water systems as close to occupancy as possible; check residual disinfectant levels and test water samples from outlets and tanks.

**Step 4: Inspect** – Inspect and refill plumbing traps and floor drains that may have dried out; check drains are free flowing.

**Step 5: Consider** – Consider retrofitting to hands-free plumbing fixtures and adding lids to water closets.

**Remember–** Don't forget vending machines with drinks, water softeners, etc.

## HVAC SYSTEMS



**Step 1: Filter** – Replace used filters with maximum level the system will support, ideally MERV 13 or higher.

**Step 2: Flush** – Flush out the building prior to occupancy with fresh outdoor air. Make sure conditioned air reaches all spaces.

**Step 3: Ventilate** – Increase outdoor ventilation rates during occupancy periods and extend operating hours to enhance air turnover. Consider disabling demand

control ventilation and increasing outdoor air to 100% if the building systems will accommodate this. Consider disabling heat recovery systems if there is a risk of bypass.

**Step 4: Condition** – Maintain the building relative humidity between 40% and 60%, if the building envelope, finishes, and systems can accommodate it.

**Step 5: Control** – Revert BAS settings to occupied mode. Consider BAS schedule of occupied mode and if original schedules and durations will be maintained. Consider extended occupied operation for extended flushing of the occupied spaces.

**Step 6: Investigate** – Investigate additional air treatment e.g. UVGI disinfection, ionization filtration.

**Step 7: Check** – Ensure cooling towers are cleaned and well-maintained, and follow appropriate start-up processes e.g. chemical treatment. Check pneumatic controls systems are operational and refrigeration systems charged. Check for Legionella.

**Remember–** It's likely that you are re-activating your systems in a new season. Remember to make any necessary seasonal adjustments.

## ELECTRICAL SYSTEMS



**Step 1: Inspect** – Inspect equipment before re-energizing.

**Step 2: Stage** – Operate staged reverse lockout system as systems are re-enabled; consider a staged start-up of equipment.

**Step 3: Label** – Ensure labelling is up to date; this is a good opportunity to fix missing labelling as you re-activate systems.

**Step 4: Check** – Check lighting systems, including lamps; also check batteries in emergency lighting and UPS systems charging and holding charge. Re-activate security systems.

**Remember–** Make sure security systems are re-activated.

## LIFE SAFETY & FIRE SYSTEMS



**Step 1: Notify** – Notify insurance company and local fire department to confirm any specific re-activation requirements.

**Step 2: Test** – Make sure emergency lights are still functional; test emergency generator and essential power circuits.

**Step 3: Check** – Check diesel fuel tanks for emergency equipment have been filled and quality of fuel; check

air compressors for dry sprinkler systems are operating; check that all valves are working and in the correct position; check fire extinguishers.

**Step 4: Confirm** – Confirm primary emergency and back-up systems operate during mains failure condition; confirm remote monitoring and key-holding arrangements.

**Remember–** Consider how events are managed and communicated; for example, who will respond to BAS alarms?

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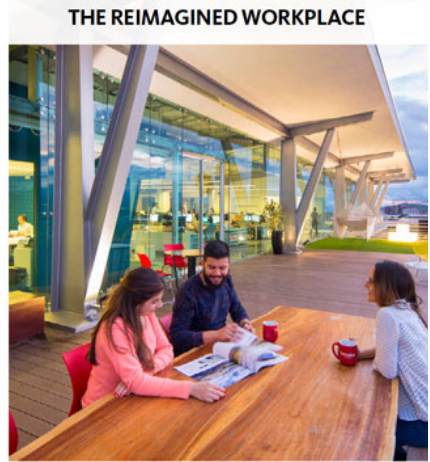
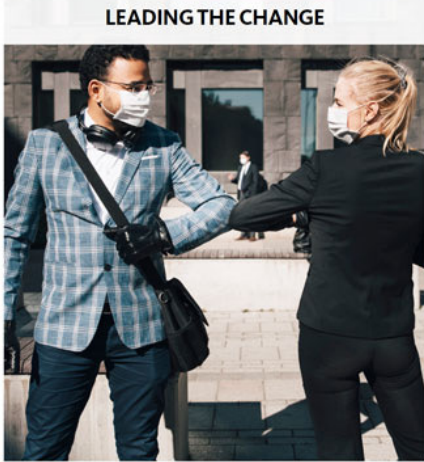
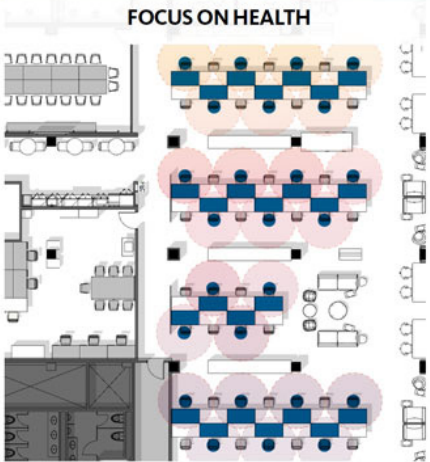
# Back to the Office

Building owners and users alike are grappling with unprecedented challenges. Based on our work with clients across the globe, Gensler offers space guidelines, proprietary tools, and services for what our clients need now, in the near term, and in the long term.

- Immediate Actions
- Ongoing Pandemic
- Reimagined Future

## Spectrum of Readiness

**IMMEDIATE ACTIONS** > **ONGOING PANDEMIC** > **REIMAGINED FUTURE**



**FOCUS ON HEALTH** > **LEADING THE CHANGE** > **THE REIMAGINED WORKPLACE**

SCREENING AND MONITORING PROTOCOLS	CLEANING AND HYGIENE	NEW SPACE TYPOLOGIES	ACCESS AND VERTICAL TRANSPORTATION	ENHANCED WORKPLACE EXPERIENCE	TOUCHLESS EXPERIENCES
PHYSICAL DISTANCING	VERTICAL TRANSPORTATION	SPACE STANDARDS AND GUIDELINES	BUILDING INFRASTRUCTURE AND SYSTEMS	HEALTH AND WELLNESS	SMART BUILDING APPLICATIONS

# Space Guidelines

## FOR OWNERS / DEVELOPERS

<b>1</b> <b>BUILDING ACCESS:</b> <b>ENTRANCES + QUEUING</b>	<b>2</b> <b>BUILDING LOBBY:</b> <b>SCREENING, CHECK-IN + SECURITY</b>
<b>3</b> <b>BUILDING CIRCULATION:</b> <b>ELEVATORS</b>	<b>4</b> <b>BUILDING CIRCULATION:</b> <b>FIRE STAIRS</b>
<b>5</b> <b>BUILDING PUBLIC SPACE:</b> <b>RESTROOMS</b>	<b>6</b> <b>BUILDING SYSTEMS:</b> <b>FILTRATION + VENTILATION</b>
<b>7</b> <b>WAYFINDING,</b> <b>SIGNAGE + GRAPHICS</b>	<b>8</b> <b>PROTOCOLS +</b> <b>CLEANING</b>

## FOR USERS / WORKPLACE

<b>9</b> <b>WORKPLACE ENTRANCES:</b> <b>VISITOR + EMPLOYEE</b>	<b>10</b> <b>WORKPLACE LOBBY:</b> <b>QUEUING + CHECK-IN</b>
<b>11</b> <b>WORKPLACE CIRCULATION:</b> <b>PATH</b>	<b>12</b> <b>WORKPLACE CIRCULATION:</b> <b>FIRE STAIRS</b>
<b>13</b> <b>WORKPLACE OPEN PLAN:</b> <b>DE-DENSIFICATION</b>	<b>14</b> <b>WORKPLACE OFFICES +</b> <b>CONFERENCE ROOMS</b>
<b>15</b> <b>WORKPLACE COLLABORATIVE +</b> <b>FOOD SPACES</b>	<b>16</b> <b>WORKPLACE</b> <b>OUTDOOR AREAS</b>

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# Road Map for Return

Many organizations are working toward a phased approach to returning to offices during the response to COVID 19. We are partnering with clients to help them navigate a **road map for safe return** that requires a multifaceted approach to planning and change.

**Grounded in public health guidance**, this set of guidelines encompasses several important considerations around moving from a response to transition phase, then toward a recovery phase once workplace restrictions are lifted in various regions.


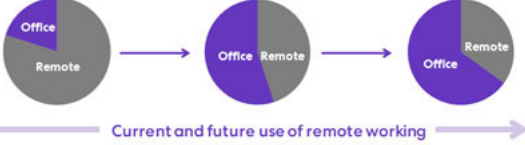







Guidance includes recommendations on employee readiness, maximum seat capacity, team scheduling scenarios, prioritizing business needs, and remote work. Additionally, recommendations include considerations on physical distancing analysis and office protocols, along with suggested behaviors and messages that should be incorporated into every planning phase to provide **a safe, healthy, and resilient return to the office.**

## This introductory package includes guidance on how to:

1. Understand the phases of the pandemic
2. Develop a framework for return
3. Understand the risks of returning
4. Assess employee readiness
5. Determine your facility's capacity
6. Identify who returns first
7. Evaluate continued remote work
8. Consider scheduling strategies
9. Implement operational changes
10. Reinforce behaviors & messages



**Return To Work Road Map**

	Response	Transition	Future Prep
<p>&gt; <b>Work Location</b></p>	<p><b>100% Remote</b></p> 	<p><b>Planning a Phased Return</b></p>  <p>Current and future use of remote working →</p>	<p><b>New Remote Mix</b></p> 
<p>&gt; <b>Operations</b></p>	<p><b>Alternate Protocols</b></p>	<ul style="list-style-type: none"> <li style="text-align: center;">   <a href="#">Commuter and Building Access</a> </li> <li style="text-align: center;">   <a href="#">Physical Distancing Analysis</a> </li> <li style="text-align: center;">   <a href="#">Protective Equipment and Supplies</a> </li> <li style="text-align: center;">   <a href="#">Food and Beverage</a> </li> <li style="text-align: center;">   <a href="#">Visitors and Deliveries</a> </li> <li style="text-align: center;">   <a href="#">Maintenance Protocols</a> </li> </ul>	<p>Revise and evolve operations for resilience</p>
<p>&gt; <b>Behaviors and Messages</b></p>	<p><b>Crisis / Remote Working Support</b></p>	<ul style="list-style-type: none"> <li style="text-align: center;">   <a href="#">New Transition Protocols</a> </li> <li style="text-align: center;">   <a href="#">In-office Etiquette</a> </li> <li style="text-align: center;">   <a href="#">Continue Remote Work Support</a> </li> </ul>	<p>Reinforce resilient behaviors</p>

**Following the question of when to return is how to plan our return.**

**Safety and health are the only priorities.**



**STEP 01**  
**Establish office capacity**

- > 6 ft. distancing
- > floor maximum
- > scheduling options



**STEP 02**  
**Plan employee return approach**

- > volunteer-based process
- > on-site support
- > client needs



**STEP 03**  
**Establish and communicate new office protocols**

- > food & beverage
- > visitors
- > deliveries
- > maintenance



**STEP 04**  
**Return to office**

- > reinforce new behaviors
- > operate under transition protocols

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# Work After COVID-19

## 1. Germ Mitigation

As more teammates return to the workplace, putting stringent procedures into practice to mitigate the spread of germs is going to be crucial in making employees feel comfortable outside of their homes. Just as important as putting these processes in place will be how companies convey these new procedures.

### QUICK WINS

- Increased communication should go beyond emails - leverage digital screens to remind staff of new policies, updated cleaning procedures, and best practices in germ mitigation.
- Use anti-microbial solutions that can be applied to multiple surface types.
- Place additional no-touch sanitation stations throughout the building.
- If there's a café, kitchen, or pantry, consider a temporary ban on refi lable cups and reusable silverware and only use disposable solutions.
- Create staggered lunch schedules from 11 a.m. to 1 p.m., to allow both social distancing, but also more time to sanitize any shared spaces or amenities.
- Increase humidity levels to 40 to 60 percent to reduce infection.

### ON THE HORIZON

- Install LED Disinfecting Lighting to sanitize break area surfaces, food preparation areas, or bathroom counters.
- Replace fixtures and furniture to focus on "easy-clean" and durable materials like tile, porcelain, soapstone, or granite.
- Implement separate HVAC systems to limit recycled air or invest in air filtration systems.
- Provide more outdoor space as a socially responsible alternative for large gatherings.

## 2. Low Touch High Impact



Companies will need to reduce the number of surfaces employees have to touch throughout the day. Touch screens will be left in the past, while new technologies will eliminate sensitivities surrounding the spread of COVID-19. But eliminating contact doesn't mean the connection will be lost. Low-touch solutions can, and should, still have a positive impact on the employee experience.

**“COVID-19 will greatly influence how our physical environments look and operate. Employers can thoughtfully and strategically take action now to set the stage for future investments in their space.”** — David Wagner

### QUICK WINS

- Empower employees to use their personal devices, cutting down on the need for shared IT devices like AV equipment.
- Use app-based software like iOffice to give workers the power to schedule conference rooms, project content, pay parking meters, and even call elevators, all from their own mobile devices.
- Add no-touch garbage and recycling receptacles in the lobby, café, and other communal spaces.
- Promote stand-up meetings when returning to work in place of traditional sit-down meetings to reduce contact with conference rooms, seating, and gathering areas.
- Move away from printing and paper handouts and embrace more digital sharing.

### ON THE HORIZON

- Replace touch screen technology and employ more “zero-touch” environmental solutions like automatic doors, voice activation, and facial recognition.
- Consider motion-sensor lighting to eliminate touch, measure the utilization of a space and its maintenance needs, and save energy.

## 3. Creating a Safe Haven



When it's safe to return to work, employees should feel at ease and protected. The first days and weeks back will be a critical transition period. The workplace has a unique opportunity and responsibility to become a safe haven for your team. Through support, transparency, and tactics inspired by WELL Building Standards, the office can become the trusted environment employees need.

**86%** of U.S. consumers believe a company's culture should support mental health

### QUICK WINS

- Beyond sanitizing and reconfiguring workstations, hand out a “wellness kit” consisting of sanitizer, masks, gloves, and a safety guide.
- Host a virtual all-staff meeting and training session to highlight what's been done to secure the space and what the new procedures will be moving forward.
- For many, more time to work remotely can provide peace of mind. Be open to requests for continued flexible or remote work hours.
- Explore ways to help beyond pay - creative and unique benefits are an opportunity to strengthen your culture and brand.

### ON THE HORIZON

- Post-pandemic, companies should add spaces that encourage movement and offer stress relief such as yoga or meditation rooms.
- Use biophilic design to clean the air and increase oxygen levels, and take advantage of opportunities to increase the flow of natural light.
- Adjust your floor plan to include more water stations and multiple pantry zones to keep employees hydrated and eliminate crowding.

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# Day One & Beyond

## 1. Building Perimeter

While outlined in other parts of this guide, it bears repeating that a well thought out pre-Day One communications program aimed at building occupants should prepare them for what to expect when they arrive and help to alleviate anxiety. Will building access be different? Will there be increased security? Should they expect delays at the entrance? Should they expect queues? Will they see directional signage or other posted information to guide them?

Every circumstance will be unique and organizations should consider the critical information their particular audience needs to prepare for arrival.

### COMMUTING, TRANSPORTATION AND VEHICLES

Promote safe and healthy ways to commute to and from the workplace.

- Suggestions for public transport might include:
  - Avoiding overcrowded public transportation
  - Wearing face masks and other PPE
  - Maintaining safe distance from other passengers
  - Using hand sanitizer when entering and exiting
  - Wiping surfaces with disinfecting wipes prior to touching them
- Other transit methods might include:
  - Ride-sharing: wear PPE
  - Solo transit modes such as bikes, scooters, cars: sanitize touchpoints especially if shared modes like public bicycles
- For employees with long commutes, consider advocating that they temporarily continue working from home

- Consider new protocols for vehicles arriving on site – both personal and commercial parking garages.
- Consider protocols for emergency vehicles and teams arriving to transport infected passengers

## 2. Inside the Building

### BUILDING ENTRY / RECEPTION

Consider guidelines and recommendations to control building ingress and egress, and that promote ongoing safety and precautionary measures at those points. These might include:

#### **Entrances:**

- Reduce the number of entrances (but maintaining code compliance) to direct occupants to use monitored and protected routes
- Hand sanitizer at doorways both inside and outside
- Temperature screening
- Floor markings for safe distancing for any queues or waiting areas
- Sanitized floor mat

#### **Reception:**

- Training reception personnel on safe interactions with guests
- Test front-line reception personnel
- Reconfiguration of visitor registration systems to avoid guests leaning over receptionists
- Glass screens between guests and reception personnel
- Virtual concierges
- Disable/decommission/remove registration kiosks/touchscreens
- Touchless registration via personal mobile phone
- Disposable sticker security tags rather than recycled clips or lanyards
- Remove reception furniture to reduce public touchpoints
- Provide PPE to building guests

**Signage:**

- Install signage at multiple, relevant locations in the entry sequence
- Explain building access rules and other protocols that impact how occupants use and move throughout the building

**PPE and Cleaning:**

- Provide receptacles for used/discarded PPE
- Monitor and review of existing cleaning guidelines and adjust or enhance as needed for cleaning paths of travel and high touch areas
- Develop new protocols for collecting and disposing of large quantities of potentially contaminated waste (especially if single-use PPE becomes common in the workplace)

**SHIPPING AND RECEIVING AREAS**

Before reopening, operators and building managers should review current processes for inbound and outbound deliveries (parcels, mail, food deliveries, couriers and so forth) and develop a revised plan to align to COVID-19 safety precautions. These might include:

- Routing instructions and plans to avoid deliveries through employee or main entrance and instead route through areas that will minimize contact with the larger building population
- Separating shipping and receiving areas from the general population
- Require personnel handling mail and parcels to wear PPE to receive parcels, mail and other deliveries, and train them in the proper use and disposal of PPE
- Sanitizing the exterior of packing
- If appropriate, removing items from boxes and appropriately discarding

**LOBBIES / COMMON AREAS / AMENITIES**

Consider guidelines and recommendations that promote safety and guide building occupants through common and amenities areas beyond the entry. These might include:

- **Hand sanitizer in stairs, elevator lobbies and all other building common areas**

- **Signage:**

- Wayfinding signage or floor markings to direct foot traffic and ensure safe social distancing
- Explain new rules or protocols for common areas

- **Casual gathering spaces:**

- Re-arrange furniture to promote social distancing

- **Food service amenities:**

- Consider acrylic dividers between service provider and users
- Offer pre-packaged foods only
- Reduce self-service access to foods
- Clearly signpost queuing areas
- Remove or rearrange furniture to promote social distancing

- **Fitness facilities and bicycle storage units:**

- Clearly signpost queuing areas
- Temporarily close fitness facilities
- Rearrange equipment to achieve social distancing
- Reduce classroom capacities to allow for social distancing
- Require use of face masks in fitness facilities

- **Cleaning:**

- Monitor and review existing cleaning guidelines and adjust or enhance as needed for cleaning paths of travel and high touch areas



## ELEVATOR AND ESCALATORS

Elevators represent a particularly challenging area to establish social distancing. Methods for managing the use of elevators might include the following:

- Social distancing queue management for waiting passengers
- Instructional signage displaying healthy elevator use protocols including passenger limits and safe distances in the carriage
- Elevator attendants to manage flow and discourage over-crowding of elevator carriages
- Signage inside elevator cars displaying healthy elevator use protocols – this may include floor stickers to establish distancing zones and describe where and how to stand
- Review of elevator cleaning processes, and updates to ensure on-going cleaning of high touch surfaces like elevator panels / buttons

Escalators pose fewer challenges which may be managed with signage directing passengers where to stand and not to pass.

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# 6 Feet Office

As we plan for work after COVID-19, organizations will think about the new normal and how we will adjust. Social distancing—keeping a healthy distance from others—is now part of our daily language and behavior. And while the recommended distance may vary by country, the idea remains the same.

Cushman & Wakefield's 6 Feet Office aims to make the workplace safer so people can get back to work sooner. The concept consists of these elements.

## 6 FEET QUICK SCAN

A concise but thorough analysis of the current working environment in the field of virus safety and any other opportunities for improvement.

## 6 FEET RULES

A set of simple and clear workable agreements and rules of conduct that put safety first.

## 6 FEET ROUTING

A visually displayed and unique routing for each office, making traffic flows completely safe.

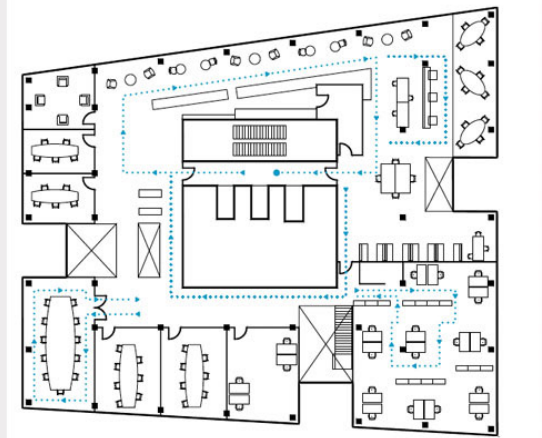
## 6 FEET WORKSTATION

An adapted and fully equipped workplace designed for worker safety.

## 6 FEET FACILITY

A trained employee who advises on and operationally ensures an optimally functioning and safe facility environment.

Learn more at [sixfeetoffice.com](https://sixfeetoffice.com)



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# Planning for the Unknown

There is no asset more valuable to an organization than its people. Now more than ever, employers must be acutely aware of what their employees individually need and be willing to meet them where they are. Furthermore, providing a holistic sense of wellbeing will become the new must-have standard for workplace environments.

The issues at hand are complex and will require thoughtful consideration around employees' physical, emotional, and psychological wellbeing.

The workplace, wherever it may be, must also feature solutions that enhance the organization's culture as well as boost overall productivity, respond to the evolution of work, and empower each individual in these unclear times.

## PHYSICAL

Beyond critical health + safety factors like the addition of touchless features, reduced spatial densities, increased air quality/ventilation, and improved cleaning + disinfecting protocols, it will be crucial to implement several other workplace criteria that center around the welfare of the individual.

## EMOTIONAL

The great pause has allowed people to slow down and find parts of themselves that were perhaps forgotten, often through increased meditative or flow-inducing activities such as gardening, baking, painting, and forms of exercise. The health benefits found from these stimulating cognitive activities are extensive and will need to be both encouraged and supported by employers.

## PSYCHOLOGICAL

The psychological impacts of a global pandemic are hard to predict; the story will continue to unfold as workers venture back out into the physical world of work. Each person will have experienced the pandemic differently and will bring that viewpoint back to the office. To that end, employers will need to take special care to understand the mental well-

In Conjunction with **NATIONAL Office**

being of each employee and offer a positive, clear, and confident workplace re-entry experience.

## CULTURAL

When employees positively experience, engage, and connect with a thriving workforce and company culture, they often feel a greater sense of individual purpose and community appreciation. Employers will need to create opportunities and places that build solidarity, reinforce and redefine evolving culture-based expectations, and be mindful of embracing flexibility when needed and provide workplace choices.

# Workplace Considerations

Keeping people at the forefront of workplace decision-making comes with a number of challenges and accommodations to consider. Both employers and employees are having to ideate, innovate, and experiment together with a common goal of finding a new normal in an abnormal world. It will be essential to adjust the lens in which we see the world and consider alternate realities and concepts. To implement a successful human-centric plan, it would be critical to examine the following:

- ✓ Diversity and inclusion of the workforce
- ✓ Requirements to do ones' job, regardless of place
- ✓ Changing attitudes and expectations on wellness
- ✓ Employees' need for safety, happiness, and camaraderie
- ✓ Changing real estate footprints to support health, safety, and wellbeing
- ✓ Ability to offer a variety of space types, added flexibility, and user-choice in the workplace
- ✓ Evolution of in-office and remote focus ME spaces
- ✓ Evolution of shared community WE + US spaces
- ✓ De-densification and shift-work planning for the short-term and long-term
- ✓ User traffic flow strategies to support physical distancing
- ✓ Indoor air quality and HVAC upgrades
- ✓ Use of outdoor spaces to support work and wellness
- ✓ Shared food and beverage protocols
- ✓ Sanitation cadence and visual cues signaling cleanliness
- ✓ Temperature check and PPE protocols
- ✓ Communication of wayfinding, safety, and cleanliness protocols

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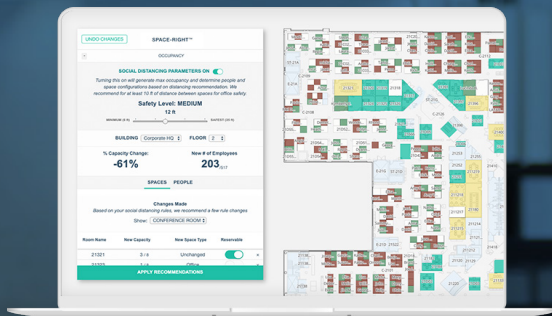
Creating the most responsive,  
frictionless workplaces everywhere.

# Design safer spaces without the guesswork.

With iOFFICE's space planning software  
and **SPACE-RIGHT™** feature, you can...

- Set physical distancing parameters with a simple slider
- Instantly reconfigure floor plans and rearrange seating assignments
- Easily manage contact tracing, touchless visitor entry, and workspace reservations

## SPACE → RIGHT™



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management.**

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# Evaluating Space Planning Strategies Following Workplace Re-entry

Even before the coronavirus pandemic, many business leaders were already rethinking their approach to office space

A 2018 benchmarking report by JLL showed most organizations had average space utilization rates of only 60-70%, meaning over a third of their space was sitting empty.<sup>1</sup> And, more than half (52%) of corporate real estate leaders said they planned to implement some level of unassigned seating in a survey by CBRE.<sup>2</sup>

A recent Gartner survey revealed 41% of employees are likely to continue working remotely at least part of the time for the foreseeable future.<sup>3</sup>

Although de-densifying space is a top priority for initial re-entry following the COVID-19 pandemic, maximizing space utilization in the long term will keep costs in check.

In a post-pandemic world, it will be essential to have accurate, real-time workplace usage data. These key strategies will give the workforce peace of mind while enabling FMs to plan accordingly.

## 1. ADOPT A MORE FLEXIBLE WORKPLACE DESIGN ALONG WITH REVISED CLEANING PROTOCOLS

With many employees continuing to work from home at least part-time following the coronavirus pandemic, many assigned seats will remain empty. Assigned workspaces also tend to become cluttered with personal belongings, making them more difficult to clean.

Instead of adopting an entirely open-concept office, an activity-based working environment will allow employees to select a space depending on the work they're doing. During the re-entry period when in-person collaboration is discouraged, you may elect to temporarily repurpose meeting rooms or huddle areas and turn them into single-occupancy offices.

Using mobile, modular furniture that can be easily cleaned and reconfigured for multiple purposes will make it easier to pivot based on changing occupancy levels and safety concerns.

## Prior to re-entry:

- Inspect or change air filters (FMLink recommends implementing HEPA filters with a minimum MERV rating of 13)<sup>4</sup>
- Change filtration systems and flush water systems
- Deep clean surfaces with disinfectant, including “diluted bleach solutions, alcohol solutions with at least 70% alcohol and EPA-registered household disinfectants”<sup>5</sup>
- Ensure the office is stocked with soap, hand sanitizer, and cleaning supplies so employees can wipe down shared surfaces
- Add signage to help employees maintain a safe distance, especially in high-traffic areas such as entrances and exits

## 2. USE TECHNOLOGY THAT MAKES IT EASY FOR EMPLOYEES TO RESERVE SPACE

Hot desking, a workplace model where employees choose any space on a first-come, first-served basis, has been a trend for years. While it does offer employees more flexibility, its informal nature makes it difficult for FMs to plan ahead with no way of knowing how many employees are in the office each day, which spaces they’re using, and how to adjust cleaning schedules accordingly. This also leads to widely fluctuating occupancy levels, making it difficult to plan long-term space needs.

Desk hoteling, where employees reserve workspaces when they need them, can be a viable alternative. To gain adoption, ensure the reservation technology is easy to use and integrates with existing solutions, such as calendars. It should also allow staff to find colleagues, reserve rooms, and request service, with the ability to receive deliveries and important announcements. Employee experience apps can also help staff navigate the changing workplace to find what they need, such as reserved rooms or sanitization stations, while directing traffic to minimize airflow disruption.

## 3. USE WORKPLACE DATA TO INFORM DECISIONS

FMs with existing space planning software can view historical data on building use and gather new insights in real time to plan and scale re-entry strategies.

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NEW SEMI-PERMANENT CUSTOM FLOOR TILE

# GIVE WORKERS A SAFE & SINCERE WELCOME BACK

Welcome employees 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, workplaces 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](#)
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by CreativeEdge



Being separated from other people is hard. It's counter to our very nature, and it limits our ability to communicate, collaborate, learn (and have fun). But right now, it's the thing we must do to keep each other safe.

This paradox was described by Randy Fiser, CEO, ASID in I&S 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?"<sup>1</sup>

### 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. While specifics remain foggy, they generally agree on these key facts:

- Physical distancing is the most effective way to control the spread of the coronavirus that causes COVID-19.<sup>2</sup>
- Unprecedented restrictions on personal movement and business operations will continue to varying degrees globally for months.
- The pandemic crisis has forced our 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 workplaces plan re-opening strategies, but there are some familiar and comforting truths we can cling to:

- People generally want to get back to the workplace. According to Gensler, only 12% of respondents prefer to stay at home.<sup>3</sup> "In parts of the world where ... people are returning to work, office colleagues aren't falling back into old patterns of handshakes and communal dining and lunchtime workouts. Instead, they're importing the artifacts that defined their day-to-day lives during quarantine: face masks, latex gloves, hand sanitizer, and a six-foot radius."<sup>4</sup>

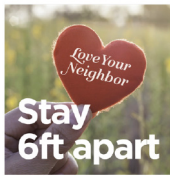
[CLICK FOR CONTENTS](#)

- Honest, transparent, positive experiences with brands are more important than ever. The brands that invest in telling a sincere story will be the ones employees trust, and likely the ones that will 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 worker and protect the wounded psyche of people who may be fearful of going back to the office. 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 6 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.



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.

**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 the returning workforce when they know you've had months to prepare? Tactile, direct, comforting, and sincere communications are critical to calm nervous employees. The perils of not taking this need seriously will be anxious and distracted workers at best, and an increase in COVID-19 cases at worst.

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

[CLICK HERE TO LEARN MORE](#)



## Update your restroom to hygienic touch-free.

Now more than ever, making the commercial restroom experience touch-free is crucial to public health and safety. Sloan is ready to provide updates from manual to touch-free fixtures, with products for every budget.

Shown above: DSCT-8200 Designer Series™ Sink and EAF-100-ISM Optima® Faucet with ESD-1500 Sloan® Foam Soap Dispenser, EHD-501 Sloan® XLERATOR® Hand Dryer, ADA Recess Kit.

Shown left: G2 8186 Exposed Sensor Urinal Flushometer, G2 8111 Exposed Sensor Water Closet Flushometer.



**SLOAN.**

## Guide to Properly Clear (Flush) Commercial Restrooms Prior to Re-Opening Your Building

This guide is specific to commercial restroom fixtures and fittings. This is not an all-inclusive guide for clearing/flushing the potable water plumbing system in a commercial building. In addition to following all site-specific water management plans, building staff should inspect and clear (flush) all water-using appliances like ice machines and dishwashers as well as mechanical equipment, such as cooling towers, boilers, pumps, backflow preventers, etc., and determine if there are any issues regarding the safety of their use. The entire water system for a building (kitchens, laundry, etc.) also needs to be flushed.

The COVID-19 pandemic has resulted in widespread building shutdowns and low occupancy across the globe. As commercial buildings begin to reopen, it is paramount that specific procedures are implemented to properly flush out buildings' watersystems to reduce the serious water safety risks that are associated with prolonged system inactivity. Water that sits in plumbing lines for extended periods of time will become stagnant. "Facilities should keep water moving through their buildings to minimize problems associated with bacterial contamination," says Dr. Andrew Whelton, Associate Professor of Civil Engineering and Environmental and Ecological Engineering at Purdue University. "Plumbing fixtures that can be programmed to automatically purge potable plumbing lines can greatly reduce the potential for complications and health risks associated with stagnant water." While not all stagnant water is problematic, this water could have a bad taste, unpleasant odor, debris, or more serious problems, like elevated levels of lead and copper. It may also contain little or no residual disinfectant, such as chlorine, leading to elevated levels of bacteria and other microbiological contaminants like Legionella or Pseudomonas aeruginosa.

It is recommended that buildings purge the entire water distribution system within their commercial facility to ensure fresh water is present before flushing/clearing fixtures and fittings as a best practice.

To help you protect the safety, health, and well-being of your building occupants, Sloan has created these general guidelines to help building engineers and others knowledgeable about the building water supply to safely clear/flush the water in your commercial restrooms.

**FLUSHOMETERS FOR WATER CLOSETS AND URINALS**

*SOLIS® 8111 Exposed Sensor Water Closet Flushometer on ST-2009 Vitreous China Floor-Mounted Water Closet*



*HYB-7000 Vitreous China Hybrid Urinal*



*WETS-8009.8110 Vitreous China Floor-Mounted ADA Pressure-Assisted Water Closet.*

- It is recommended that you start at the water closets and urinals that are located farthest from the branch lines in the restroom entry. Flush the farthest water closet and/or urinal at least three times. Each subsequent water closet or urinal need only be flushed twice. If the urinal is an ultra-low flush volume (0.125-0.25 gpf), then flush five to six times each. This will purge the pipes from the main branch to the urinal valve. Flush each valve the maximum amount if the branch line location is unknown.
- Debris from stagnant water can dislodge and foul diaphragms and pistons within a flushometer, causing additional valve run-on situations. If you experience these conditions, check and clear the diaphragm or piston with the proper tools per the [Royal/Sloan/Regal/Gem/Crown](#) flushometer maintenance instructions. Please contact Sloan Technical Support or your local Sloan rep agency for additional assistance with procedure and repair parts to have on hand. Sloan maintenance support videos are available online.
- Replace the cartridge for waterfree or hybrid urinal fixtures.
- Bedpan washer flushometers should be engaged in the downward (fully open) position and flushed three times.

**PRESSURE-ASSISTED AND TANK TYPE TOILETS**

- Flush a pressure-assisted toilet a minimum of three times, allowing full setup/re-pressurization between each flush.
- Troubleshooting information and videos can be found on the [Flushmate website](#), and OEM parts are located on the [online parts finder](#).
- Tank type toilets located farthest from the branch lines in the restroom entry should be flushed at least three times. Each subsequent water closet need only be flushed twice. Flush each toilet the maximum amount if the branch line location is unknown.
- Learn more about how to retrofit your pressure assisted handle using [Intelli-Flush™](#) sensing technology.

For more information please visit [sloan.com](http://sloan.com) or call 800.982.5839.  
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# PART 3

## WELLNESS & CLEANING

**CLICK ON TITLE TO GO TO PAGE**

Strategies from the WELL Building Standard To Support the Fight Against COVID-19 (IWBI).....	48
The Case for a Hands-Free Workplace (HOK) .....	53
Risks Associated With Reduced Use of Building Water Systems (Chicago Faucets).....	56
Recommended Commercial Cleaning & Infection Control (OpenWorks).....	59
The Importance of Handwashing in Public Restrooms (Bradley Corp.) .....	62
Health & High-Performance Fabric (Crypton) .....	65
Antimicrobials: What They Are & Types (Designtex) .....	67
An Air Filtration Primer for Building Owners and Developers (Gensler) .....	71
The Human Costs of Improper Air Flow (Permatron).....	74
How HVAC Can Support Employee Health (HOK) .....	77
Filtration and HVAC Upgrades to Mitigate Infection Transmission (Dynamic Air Quality Solutions) .....	81
Outdoor Spaces: The New Opportunity to Activate and Invest in Wellbeing (Landscape Forms).....	84



# STRATEGIES FROM THE WELL BUILDING STANDARD TO SUPPORT IN THE FIGHT AGAINST COVID-19

## Prevention and Preparedness, Resilience and Recovery



Buildings, communities and organizations play a leading role in supporting our health and well-being, as well as our collective ability to prepare for and respond to global health challenges like the one we're experiencing now.

### WELL STRATEGIES IN ACTION

The WELL Building Standard (WELL), a framework utilized by 4,100 projects across more than 540 million square feet, was created to help people thrive in the buildings where we spend our lives. With its research backing and global focus, we believe that WELL can be an especially pertinent and helpful tool during this time. Many of the evidence-based strategies within it, spanning building design and operations, as well as company policies and

**"If managed poorly, [buildings] can spread disease. But if we get it right, we can enlist our schools, offices, and homes in this fight."**

- Joseph Allen, DSc, MPH, Co-Chair, IWBI Task Force on COVID-19 and Other Respiratory Infections: Prevention and Preparedness, Resilience and Recovery; Assistant Professor of Exposure and Assessment Science and Director of the Healthy Buildings Program at Harvard's T.H. Chan School of Public Health



culture, provide an actionable framework for organizations and communities responding to COVID-19\* and preparing for a safer and healthier future.

To that end, we've identified and grouped select, applicable strategies from the [WELL Building Standard v2 pilot \(WELL v2\)](#) around key themes that reflect how organizations can approach prevention and preparedness, resilience and recovery in relation to COVID-19 and other respiratory infections, from enhancing air quality to supporting mental health. Each specific strategy is linked to more information within the digital version of the WELL v2 system.

### KEY THEMES

1. Promote clean contact
2. Improve air quality
3. Maintain water quality
4. Manage risk and create organizational resilience
5. Support movement and comfort, including work from home
6. Strengthen immune systems
7. Foster mental resilience

Our intention had been to bring WELL v2 out of pilot in March. However, in light of the COVID-19 pandemic, we put those plans on pause, and on March 19, IWBI launched the Task Force on COVID-19 and Other Respiratory Infections: [Prevention and Preparedness, Resilience and Recovery](#), a concerted global effort to help further define the leading role buildings, organizations and communities can play in reducing the health burden from this and other infectious diseases.

Chaired by 16 renowned experts, and populated by over 540 thought leaders and authorities from across public health, medicine, design, real estate, government and academia, the Task Force goals are two-fold:

\*SARS-Co-V-2 (severe acute respiratory syndrome) is the virus that causes the disease, COVID-19. This paper will refer to COVID-19 throughout. World Health Organization.

- Inform new Guidelines for Prevention and Preparedness, Resilience and Recovery for individuals, organizations and communities to help them better integrate actionable insights and proven strategies into how they manage both their buildings and their organizations.
- Assess ways in which the WELL Building Standard can be further strengthened in this moment and also into the future, reflecting any new research and incorporating evidence-backed strategies that have evolved in response to the COVID-19 pandemic.

While these more comprehensive guidelines are still underway, we hope this document will serve as a roadmap to help you plot the path forward toward a brighter, healthier and more secure future.

## PROMOTE CLEAN CONTACT

COVID-19 is spread primarily through close contact with an infected person via respiratory droplets. Research suggests that the virus can remain airborne for up to three hours and on some surfaces for up to 72 hours.<sup>1</sup> Maintaining good cleaning protocols and handwashing habits can support individual and organizational resilience by helping reduce the chance of infection. Soap has been found to be more effective than hand sanitizer in community settings, though hand sanitizer with at least 60% alcohol by volume can also be used.<sup>2</sup>

### WELL STRATEGY

#### **Reduce exposure to pathogens, allergens and hazardous cleaning chemicals**

##### **Handwashing** - [WELL Feature W08](#)

Reduce pathogen transmission associated with washing and drying hands by providing sufficiently large sinks, disposable soap containers and hand-drying towels.

## Cleaning Products & Protocol - [WELL Feature X09](#)

Implement a rigorous cleaning protocol that addresses high-touch surfaces, provide annual trainings, maintain cleaning logs and restrict use of hazardous or harmful ingredients in cleaning, disinfection and sanitization products.



# IMPROVE AIR QUALITY

Air stagnation may concentrate airborne viruses or dust, so it is critical to keep indoor air as refreshed as possible. Research has shown that increased ventilation in a building can reduce the chance of influenza; a study published in 2019 found that ensuring even minimum levels of outdoor air ventilation reduced influenza transmission as much as having 50-60% of the people in a building vaccinated.<sup>3</sup>

Without proper maintenance and filtration, heating, ventilation and air conditioning systems can build up mold and particulates that can propagate respiratory diseases, especially after periods of inactivity.<sup>4,5</sup>

There is also evidence that humidity can play a role in the survival of viruses

such as COVID-19.<sup>6</sup> As such, maintaining relative humidity between 40% and 60% may help to limit the spread and survival of COVID-19.<sup>7</sup> Organizations should weigh the effectiveness and complexity of humidification systems against other air purification strategies.

## WELL STRATEGY

### Reduce indoor air quality issues by providing adequate ventilation and filtration

#### Ventilation Effectiveness - [WELL Feature A03](#)

Bring in fresh air from the outside through mechanical and/or natural means to dilute human and product-generated air pollutants.

#### Enhanced Ventilation - [WELL Feature A06](#)

Implement advanced ventilation strategies such as increased outdoor air supply, demand-control ventilation, displacement ventilation and advanced air distribution that can enhance air quality.

#### Operable Windows - [WELL Feature A07](#)

Provide operable windows and encourage building users to open windows when outdoor air quality is acceptable.

#### Air Filtration - [WELL Feature A12](#)

Implement adequate air filtration and document a maintenance protocol for installed filters.

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1. van Doremalen N, Bushmaker T, Morris DH, et al. Aerosol and Surface Stability of SARS-CoV-2 as Compared with SARS-CoV-1. *New England Journal of Medicine*. 2020/04/16 2020;382(16):1564-1567. doi:10.1056/NEJMc2004973
2. Center for Disease Control. Show me the Science- When & How to Use Hand Sanitizer in Community Settings. CDC. Accessed April 14, 2020. <https://www.cdc.gov/handwashing/show-me-the-science-hand-sanitizer.html>
3. Śmieszek T, Lazzari G, Salathé M. Assessing the Dynamics and Control of Droplet- and Aerosol-Transmitted Influenza Using an Indoor Positioning System. *Scientific Reports*. 2019/02/18 2019;9(1):2185. doi:10.1038/s41598-019-38825-y
4. Mendell MJ, Mirer AG, Cheung K, Tong M, Douwes J. Respiratory and allergic health effects of dampness, mold, and dampness-related agents: a review of the epidemiologic evidence. *Environmental health perspectives*. 2011;119(6):748-756. doi:10.1289/ehp.1002410
5. Bekö G, Clausen G, Weschler CJ. Is the use of particle air filtration justified? Costs and benefits of filtration with regard to health effects, building cleaning and occupant productivity. *Building and Environment*. 2008/10/01/ 2008;43(10):1647-1657. doi:<https://doi.org/10.1016/j.buildenv.2007.10.006>

# COVID-19 and the Case for a Hands-Free Workplace

**Artificial intelligence and ambient technology offer solutions for making workspaces healthier and people more productive, writes HOK's Director of Workplace [Kay Sargent](#).**



One side effect of having to shelter in place is you have plenty of time to reflect on the past and ideate about the future. Over the past few years, I have been discussing how [artificial intelligence and technology](#) is impacting the human experience. In these presentations, I share an analogy of how the auto industry often has been ahead of the design and construction sectors when it

comes to seamlessly integrating technology and autonomous experiences.

Think about it. We have cars that automatically sync with the key fobs in our pockets so that, before we step inside the vehicle, the mirrors and seats are adjusted, the air-conditioning is on, the engine is running and the radio is tuned to our favorite station. Now compare that to the workplace, where many of us are still crawling under our desks every time we need to access a power outlet.

We can do so much more in the workplace to create an autonomous environment and improve the user experience. The reason we haven't is that, unlike the auto industry, it is not always so easy to distinguish between an "economy" version of a workstation and the "luxury" option. Therefore, we

tend to design everything to the “economy” version.

I have also discussed how a trigger event almost always results in a flood of new demands and expectations. The COVID-19 pandemic will impact us in ways none of us can yet fully understand. But one thing is almost certain: People will no longer view the workplace the same way as before.

One aspect that is sure to change is how we approach high-touch areas of the workplace. The desire, if not need, to reduce the number of touch points in our work environments could be the first factor that leads us to truly autonomous, hands-free environments.

In this new scenario, we would leverage the technology already available to create spaces that are responsive to us instead of us having to respond to them. These solutions will no longer be “luxury” solutions—they will be essential requirements of the modern workplace. Why? Because the cost to create hands-free solutions enabled by technology is minimal compared to the price of having to shut down a business due to contamination or illness.

[Ambient computing](#)—an ecosystem and a network of technology that responds in real time to what is happening in the business environment—is now laying the foundation for an autonomous workplace. This advancing technology, coupled with our ability to work from anywhere at any time, is creating new opportunities. We have the ability to design spaces that support freedom of movement and enable us to work hands-free. Smart tech can help create a truly intelligent, autonomous workplace designed to meet the specific needs of individuals and create safer, cleaner and healthier space.

We are up for that challenge.

About this series: HOK [WorkPlace](#) leaders are sharing their thoughts and client insights about the state of today’s work environment and how it will adapt to the new coronavirus realities.

[Part 1: This Is No Ordinary Time for Remote Working](#)

[Part 2: What Will Be the COVID-19 Takeaways for the Workplace?](#)

[Part 3: Lessons Learned From Construction Markets First Hit by Coronavirus](#)

[Part 4: COVID-19 and the Case for a Hands-Free Workplace](#)

[Part 5: Design Strategies for Work and Life Following COVID-19](#)

[Part 6: Will Social Distancing Make Way for Workplace Distancing?](#)

[CLICK HERE FOR FULL REPORT](#)

# GO TOUCHLESS

Washing your hands has never been more important than it is now. The best way to stop the spread of illness is to wash your hands with a touchless faucet. Touchless faucets offer cleaning power and the peace of mind that comes with zero touch technology. View our complete line of touchless faucets at [chicagofaucets.com](http://chicagofaucets.com)



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FAUCETS.**  
Geberit Group

# Risks Associated with Reduced Use of Building Water Systems

The Centers for Disease Control and Prevention (CDC) has issued updated guidelines for reopening buildings after an extended shutdown. To deal with the global COVID-19 pandemic, many companies had to send staff home and shut down their buildings temporarily as part of the effort to reduce the spread of the virus. Safely reopening these buildings will require consideration of the factors outlined below, which are focused on building water systems.

## CDC WATER SYSTEM SAFETY GUIDELINES AFTER TEMPORARY SHUTDOWNS

Reduced use of water and sanitation systems can create new hazards for the building's occupants. The CDC advises building and facility managers to address risks associated with mold and Legionella due to prolonged periods of inactivity. For Legionella specifically, a prolonged period could be a few days, weeks, or months, depending on the building's water system design.

**Additional risks may also be present when reopening a building, which includes:**

- **Microbial hazards** like non-tuberculous mycobacteria
- **Increased corrosion** due to changes in water chemistry
- **Metals like lead** leaching into stagnant water sources
- **Gases from dry sewers** or disinfectant by-products

From the risks posed to occupants, Legionella (which causes Legionnaires' disease) remains the most significant hazard. The CDC provides a comprehensive set of resources on how to minimize the risks associated with plumbing systems, mold, and other hazards after prolonged building shutdowns on its [website](#).

## HOW TO RESTART A BUILDING WATER SYSTEM SAFELY AFTER A PROLONGED SHUTDOWN

For facility managers, reopening the building requires a few steps before staff or visitors may be allowed to return. While regional water codes or regulations may apply, the CDC's guidelines include detailed information that covers the entire process. **The main steps companies should follow are:**



- **Implement or apply a water management program** – If the building has a water management program in place, follow program instructions before reopening the building. If no water management program exists, the CDC recommends the development of such a program in accordance with [ANSI/ASHRAE Standard 188-2018](#).
- **Maintain water heaters** – Companies should also ensure all required maintenance is up to date on water heaters and that temperatures are set for optimum comfort and safety. Follow the manufacturer’s guidance about draining systems if required.
- **Completely flush all water systems** – Both hot and cold water systems should be completely flushed through all points, including showers, sink faucets, and water-based devices like ice machines. For hot water, flush until it reaches maximum temperatures; the intent is to replace all standing water in the system.
- **Clean all water features** – Wherever water flows into features like fountains, drain and clean the installations as part of the flushing process. The same applies to tubs and spas.

For each of the above processes, follow the detailed guidelines provided by the CDC.

#### IMPROVING WATER SAFETY IN BUILDINGS

While organizations prepare to reopen, it’s also important to consider modern water distribution systems and outlets for hygiene and staff safety. Faucets remain a critical element in the fight against COVID-19 but could also present additional risk for infection. Installing faucets and fittings that reduce the need to [touch surfaces](#) can help facilities to protect staff and reopen safely. Similarly, using faucets with built-in thermostatic protection, like the [E-Tronic 80](#), for water distribution can also improve hygiene within the facility.

Providing a safe and sanitary supply of water should be a top priority for facility managers trying to help their facilities recover from the COVID-19 pandemic. This means, in part, managing the risks associated with stagnant water sources. Preventing diseases from spreading in a building requires adequate protections installed throughout the water system — from source to outlet.

**By following the guidelines provided by the CDC, facility managers will be able to restart a building’s water system safely, protecting staff and visitors.**

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# STOP

the spread of germs and bacteria that transmit infectious diseases

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# Recommended Commercial Cleaning & Infection Control

For schools, offices, dayca e centers, or other areas where people do not stay overnight, the CDC says service providers should clean and disinfect all areas daily, including offices, ba hrooms, common areas, touch screens, keyboards, and electronic equipment—especially shared devices.



For locations where people do stay overnight, they recommend cleaning and disinfecting individual areas and that particular care be taken to disinfect common areas where employees and others could encounter people who are infected. If someone with coronavirus has been identified in he facility, they suggest opening outside doors or windows to increase air circulation and waiting 24 hours or longer before deep cleaning and disinfecting.

## Disinfecting Hard Surfaces

For non-porous surfaces, such as desks, tabletops, or metal, a commercial cleaning company should follow best practices for deep cleaning. This includes cleaning with detergent or cleaners first and hen using EPA-registered disinfectants designed for hard surfaces.



## Disinfecting Electronics

Careful cleaning of electronics as a part of the daily cleaning routine is necessary to avoid damage to components. Deep cleaning practices include the use of alcohol-based wipes or sprays that contain at least 70% alcohol.

## Disinfecting Soft Surfaces

For porous surfaces, such as rugs, carpeting, or drapes, areas should be cleaned and then disinfected with cleaning products approved by the EPA for use on porous surfaces. If possible, remove and launder items using the warmest appropriate water setting. Detergent and agitation break down germs and heat help kill them.

## Cleaning Staff Protection

Gloves and gowns or uniforms should be worn by commercial cleaning staff when doing a deep cleaning. Depending on the disinfectant being used, additional personal protective equipment (PPE) may also be used.

## Commercial Cleaning Company Standards: Disinfectants for Infection Control

Unlike regular commercial cleaning where dirt is visible, you can't see the coronavirus. Therefore, you have to clean and disinfect everything to kill it.

During a deep cleaning with disinfectants, your commercial cleaning company should use a two-step process to disinfect.

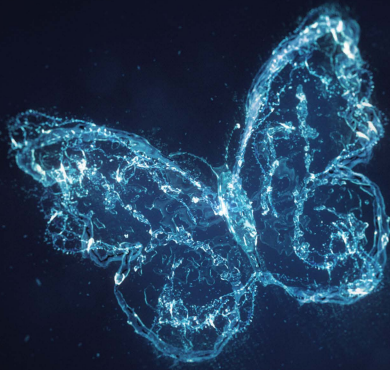
1. The first step is a general cleaning to remove soil, dirt, dust, organic matter, and most germs.
2. During the second step, approved disinfectants are used to destroy germs.

Your commercial cleaning company should pay special attention to common and high-touch areas, such as:

- Door handles and knobs
- Light switches
- Handrails
- Elevator buttons
- Phones
- Sinks and faucets
- Restroom stalls and dispensers
- Vending machines
- Food preparation surfaces
- Breakroom, restaurant and cafe tables and chairs
- Microwave, refrigerator and kitchen appliance handles
- Coffee machines
- Copier, printer and fax control buttons
- Cabinet and file drawer handles
- Chair arms
- Desks
- Countertops
- Front desk and lobby surfaces
- Equipment controls
- Wheelchairs and walkers
- Computer keyboards and mouse
- Remote controls
- Recreation equipment

A daily routine of deep cleaning with disinfectants for infection control should include entrance ways, lobby or reception areas, offices and open spaces meeting rooms, hallways, lunchroom and breakrooms, kitchens, bathrooms, elevators, classrooms, counters, and other common areas.

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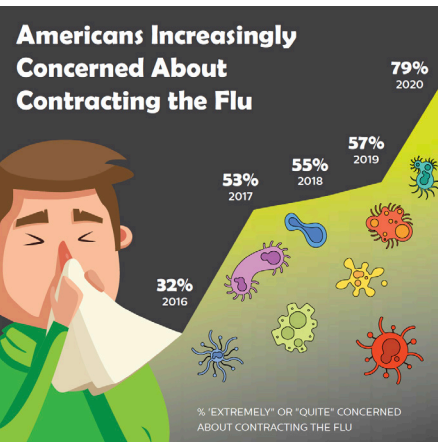
# The Importance of Handwashing in Public Restrooms



**Being an industry leader in public space handwashing, we understand best practices in handwashing and reducing germ transmission. For 11 years, we have surveyed American's handwashing habits in public restrooms. Here are some recent findings:**

- **Americans wash their hands 86% of the time after using a public restroom.** Boomers are the most consistent lathering up 91% of the time. Gen Z the least diligent, clocking in at 82%.
- Even before coronavirus hit the United States, almost 60% of Americans were extremely or quite concerned about catching the flu, compared to just 32% who felt that way four years ago. Among all age groups, Millennials expressed the most trepidation about getting sick.
- 64% of Americans correctly believe that hand washing is more effective in removing germs than hand sanitizer — a fact supported by the CDC.
- In response to flu outbreaks, almost 80% of Americans said they wash their hands more frequently, more thoroughly or longer after using a public restroom.

The CDC and medical professionals continue to say that handwashing is the number one way to stop the spread of the coronavirus. “Thorough handwashing with soap and water remains the best way to reduce the spread of disease-causing microorganisms like COVID-19,” says medical microbiologist Michael P. McCann, Ph.D., professor of biology, Saint Joseph’s University.



It’s no surprise where Americans are most concerned with people not washing their hands when out in public. 40% said restaurants and 35% identified hospitals, clinics and doctor’s or dentist’s offices. An additional 15% answered schools and 8% said airports. Americans need to be more diligent in their handwashing behavior in these public spaces to stay germ free.

While Americans universally believe it is important to wash one’s hands after using a public restroom, unfortunately, there is also a rinse-and-run phenomenon:

- 67% admit they’ve skipped the soap and simply rinsed their hands with water after using a public restroom.
- Gen X is mostly likely to short cut hand washing with 73% admitting they’ve only rinsed their hands.

### **Americans Demand a Touch-Free Restroom Experience to Avoid Germs**

Our research shows making everything touchless is the top improvement Americans want in public restrooms, aside from keeping them cleaner and better stocked. All too often Americans need to go out of their way to avoid contact with germs in restrooms. For example, 65% use paper towel to elude hand contact with doors and faucets, and an additional 44% operate the flusher with their foot.

### **The Bottom Line**

The importance of handwashing cannot be overstated. All medical professionals, the CDC and health and safety experts stress that the best way to avoid germs is to wash your hands.

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# **A normal fabric just won't cut it in the new normal.**

The first and only disinfectable fabric  
approved by the EPA.

Our 27 years of continuing innovation ensure each fiber in every yard of Crypton Fabric repels not only liquids and oils, but also bacteria, mold and fungus. And 15 years of EPA approval assure it's still the first and only disinfectable fabric. In these new challenging times, specify Crypton—the only performance fabric certified to meet the challenge.

**Insist on the mark of fabric intelligence. Insist on the mark of Crypton.**





# Health & High-Performance Fabric

## Why normal fabrics won't cut it in a post-COVID world.

As we move toward a post-COVID-19 world, cleanliness and health will be our number one priority, not only in hospitals, but also in offices, schools, hotels, stores, restaurants, public spaces—anywhere people tend to gather. As a result, textiles will need to perform better than ever before to help support human health.

To that end, fabrics specified for commercial environments should take a two-pronged approach to wellbeing: first, they need to be disinfectable; and second, they should not contain chemicals of concern in concentrations that compromise human and environmental health.

Let's take a look at both parts of the equation.

### Disinfecting Fabric: The EPA Standard

To be 100% certain a fabric is disinfectable, it's critical to ensure that the right product is specified. To date, there is only [one fabric](#) deemed disinfectable by the Environmental Protection Agency (EPA). The EPA sets forth its only fabric disinfectability standard in a simple two-part system:

1. Crypton Barrier Fabrics are disinfected when ...
2. treated with [EPA-approved Crypton Disinfectant & Deodorizer](#).

When combined, the two create a powerful tool in the fight against the spread of infection in commercial interiors. Crypton has created an engineered system of disinfection for high-use, high-abuse environments or any setting where its fabric is installed. In fact, the company's barrier fabrics (Crypton Fabric and Crypton C-Zero) provide beautiful, high-traffic durability with permanent stain and spill resistance that have been EPA-approved and disinfectable for 15 years.

### SANITIZATION VS. DISINFECTION

The words "sanitizer" and "disinfectant" are often used interchangeably, but there are very clear and distinct differences—and never has it been more important to understand the distinctions between them. The EPA has specific definitions for each. Sanitization reduces bacteria but doesn't necessarily kill bacteria and viruses. Disinfection, on the other hand, kills both bacteria and viruses.

In other words, it's not enough to sanitize; fabrics should also be disinfected to ensure that people stay as healthy as possible in any space. To do that, Crypton

has made available an EPA-registered and approved disinfectant and deodorizer that kills a broad spectrum of bacteria, viruses, mold, mildew and fungus on contact. Safe, simple and highly effective, this is much more than a sanitizer, which can only claim to reduce bacteria on a surface. This disinfectant and deodorizer:

- Eliminates 99.9% of bacteria & viruses
- Meets EPA's Emerging Pathogen Policy against COVID-19
- Fights cold and fl
- Kills mold and mildew
- No-rinse formula
- One-step cleaner, deodorizer and disinfectant
- Safe for use around children and pets
- Germicidal and viricidal performance with a fresh, clean scent
- Deodorizes textiles
- Not for use on medical device surfaces

When this proprietary disinfectant is combined with integrated barrier fabrics, it creates an engineered system of disinfection for high-use, high-abuse environments.

### **Environmentally Intelligent Fabrics**

The sustainability movement has reached a tipping point. As the building industry has successfully adopted green building practices that address the Planet and Profit components of the Triple Bottom Line, its focus is now squarely on People, as evidenced by the wellness trend that made significant inroads in the market even before the COVID-19 outbreak.

Today and in the future, performance fabrics will by necessity need to help promote wellness. Given the recent announcements from the EPA regarding fines for imports of products that contain “persistent long-chain PFAS chemicals” otherwise known as C8, understanding what a fabric is and is not is more important than ever.

While many textiles can tout environmental attributes, Crypton’s patented chemistry combines a variety of active ingredients that are screened for environmental and human health concerns (no plasticizers, PVC, flame retardants (FR), or harmful chemicals) before being processed through a series of baths and ovens that permanently encapsulate each fiber and integrate a moisture barrier. Crypton also has taken steps to ensure its performance textiles are free of persistent organic pollutants (POPs), contain no formaldehyde, and emit ultra-low or no volatile organic compounds (VOCs)—all of which have been shown to have adverse effects on human health. All Crypton fabrics are also treated to prohibit the growth of molds like *Aspergillus niger* (“black mold”) and the spread bacteria like *Staphylococcus aureus* (“staph infection”).

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# Antimicrobials

## **ANTIMICROBIALS: WHAT THEY ARE AND TYPES**

An antimicrobial is an agent that is toxic to, or inhibits the growth of, microorganisms such as bacteria and fungi. Antimicrobial agents come in the form of chemicals, including nanoparticles and heavy metals, that are added to products during formulation or as an after treatment.

Common types of treatments used in interiors and furnishings include chemical agents (such as benzo- and methyl-isothiazolinone); metals and metal ions (such as silver, copper, and zinc-based) and nanoparticle versions of these formulations. Antimicrobial agents may be added to surface materials to target bacteria and fungi (but generally not viruses); for anti-odor, anti-stain and anti-mildew purposes, and to protect the product from degradation by microorganisms.

## **ANTIMICROBIALS ARE, BY DEFINITION, PESTICIDES**

Because the purpose of antimicrobial additives is to control or kill a target organism, they are defined as pesticides. In the United States, the Environmental Protection Agency (EPA) regulates antimicrobial agents used in building products under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). FIFRA defines a pesticide based on the function the substance provides to a product. The EPA differentiates products incorporating these ingredients based on whether the product aims to protect the public from germ-caused illness (i.e., products making a health claim), or whether the agent is added as a preservative for the product itself (i.e., a 'treated article' exemption).

This distinction is an important one, because a manufacturer making a health claim about an antimicrobial product must abide by strict advertising protocols. Conversely, manufacturers of treated articles are free to advertise as they see fit, as long as they refrain from making a health claim. Furnishings and textiles containing antimicrobial additives are often classed as “treated articles,” and thus can only make claims related to preserving the product. Some products can claim to reduce the surface’s colonization by microbes, but these claims must be backed by strong peer-reviewed evidence before health claims could be cited. To date, there are no major studies to support reduced human infection rates for furnishings textiles treated with antimicrobials.

#### **A LACK OF EVIDENCE ON HEALTH BENEFITS**

There is currently no evidence that incorporating antimicrobial additives into interior and furnishing products will reduce human infection or make people healthier. The Centers for Disease Control and Prevention (CDC) concluded in 2003 that antimicrobial additives are an unnecessary component of a hospital’s infection control program. The CDC’s guidance on infection control states the health of all patients is best ensured through the maintenance of building engineering (HVAC) systems and proper cleaning and disinfecting practices. Practice Greenhealth, whose recently updated Healthier Hospitals guidance (v2.3, March 2020) recommends avoiding the use of anti-microbial products in hospitals, states: “With rare exceptions, very few data support the use of antimicrobials in furniture as a means of helping reduce healthcare-associated infections (HAIs). [...] Moreover, the presence of antimicrobials in furniture may lead to a false sense of security and result in less stringent infection control practices.”

### **THE HUMAN AND ENVIRONMENTAL IMPACTS OF ADDED ANTIMICROBIALS**

While there is little evidence of benefit to human health, there is growing evidence to support that the use of antimicrobials poses risks to human health and the environment. Widespread use of these substances has become associated with a form of microbial resistance known as superbugs. This can happen when antimicrobial agents are used to control target organisms, but do not kill all of the microbes. The survivors go on to develop resistance, and at times immunity, to the antimicrobial and become harder to kill.

Evidence demonstrates that antimicrobial additives can leach from products and find their way into wastewater systems and the larger environment, causing as-yet-to-be fully understood ecological impacts. Aquatic and mammalian toxicity to heavy-metal based antimicrobials have been documented.

In addition to the possibility of superbug creation and impacts on the environment, a number of the active agents used to create antimicrobial treatments have been linked to human health impacts. These include: endocrine disruption, carcinogenicity, reproductive and developmental toxicity, and skin and respiratory sensitization.

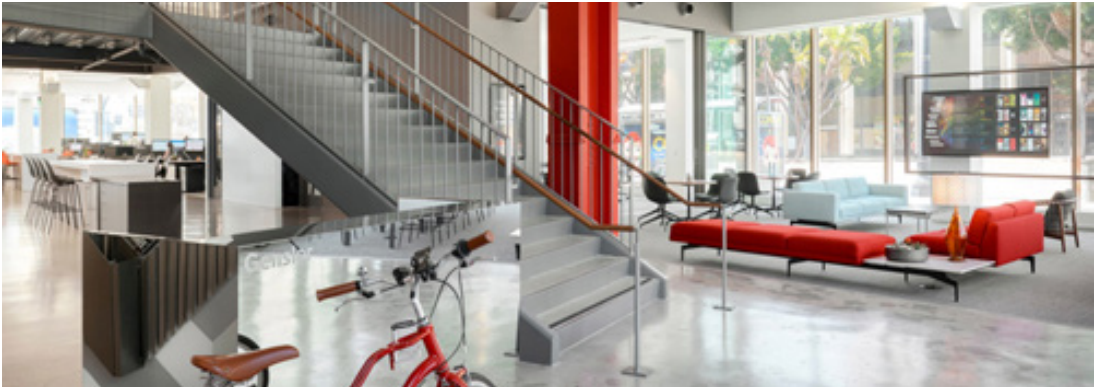
The Florence Statement, a consensus document released by a global group of scientists and doctors, urges manufacturers and users to “evaluate the safety of antimicrobials and their transformation products throughout the entire product life cycle, including manufacture, long-term use, disposal, and environmental release.” Given the human and environmental impacts that these pesticides carry, their ability to leach out of the products in which they were incorporated, and indications that they contribute to antibiotic resistance, it is difficult to justify using these products in interior environments when there is concurrently little health benefit demonstrated

**DESIGNTEX POV**

Based on the available evidence, Designtex has been actively removing antimicrobial additives from our standard product offering since 2015. We advise our clients on the selection and use of alternative materials that can contribute to a healthy interior, including our range of highly cleanable products that are appropriate for healthcare and high-performance settings. We have redoubled our research efforts around cleaning and disinfection for our products in order to offer resources on the compatibility of our materials with a range of EPA-approved disinfectants and cleaning agents, including those that target SARS-Cov2 (COVID-19; novel Coronavirus).

If customers wish to pursue an antimicrobial treatment for a specific end use, optional finishing may be arranged on some products. Designtex will provide transparent information on available treatments, but will not make any health claims, and stands by the above position that cleanable, disinfectant-compatible surfaces are the preferred route for combating germs on materials.

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# An Air Filtration Primer for Building Owners and Developers

By Darrel Fullbright, Duncan Lyons, Sheryl Schulze, and Ian Zapata

*Editor's note: This post is part of our ongoing exploration of how design is responding to the COVID-19 pandemic.*

The coronavirus pandemic has left all of us eager for a return to some form of normalcy. At Gensler we're looking at ways to make key changes to the built environment so we can help our clients create safer spaces for people as they return to work.

To that end, we recently hosted a panel discussion with three leading mechanical engineering firms to discuss indoor air quality. [Gary Pomerantz](#), Mechanical, Engineering, and Plumbing leader from WSP; [Robert Ioanna](#) and [Robert Bolin](#), MEP and architectural engineering leaders at Syska; and [Kurt Karnatz](#) and [Saagar Patel](#), respectively the president and Energy+Eco studio leader at ESD Global, all participated in this discussion and contributed to this blog post.

According to our panel, in order to consider indoor air quality as a way to mitigate the spread of viruses, we first have to determine how air quality impacts viruses and other air-driven pathogens.

Per the [CDC](#), there are three basic means of disease transmission for non-bloodborne pathogens: direct physical contact, droplets from coughing and sneezing, and inhalation of airborne particles. While rigorous cleaning and

social distancing can help address direct contact and transmission from droplets, airborne transmission may be directly impacted by the specific air distribution system of the building you inhabit.

### THREE WAYS TO MITIGATE AIRBORNE PARTICLES

As noted in ASHRAE's [recent position document](#) on infectious aerosols, there are three ways to potentially mitigate airborne pathogens with a mechanical system: trap it (filtration), kill it (disinfection), or flush it (ventilation). From a design perspective, these different approaches typically overlap, and the right strategy depends on the HVAC system you are starting with.

#### 1. Trap the pathogen

To trap airborne particles, review your current air filtration system, replace the existing filters and look at upgrading to a higher rated filter. In some cases, this can be done with little impact to the existing system. In others, modifications might be necessary depending on the air pressure available in the system. Filter types and selection should be reviewed with a mechanical engineer for the desired outcomes.

For "hot-spots" such as conference centers, restrooms, and lobbies consider adding stand-alone filtration units such as portable HEPA filters that are visible and will help make your mitigation efforts more apparent. And be sure to prepare a filter replacement program that considers the potential contamination of the replaced filters.

#### 2. Kill the pathogen

Another approach beyond filtration is to disinfect the air that is being conditioned. One of the most common disinfectant systems for HVAC uses UVC light to kill viruses in ductwork. Some mechanical systems may already have this feature, so simply replacing the UVC lamps can increase the potency of the system.

Beyond UV disinfectants, developers could consider bipolar ionization and photocatalytic oxidation. These systems charge the existing air to kill pathogens, and they don't require more outside air. Reliable testing for these systems is still in early stages, but the advanced technology shows potential.



### 3. Flush the pathogen

Increasing the amount of fresh or outdoor air and increasing the air change rate is the most common and proven approach to reducing unwanted airborne particles. Shifting your system into full air economizer mode, increasing your outdoor air damper positions, and adding air changes by night-flushing the system or running it continuously can all be effective approaches. Such frequent air exchanges will impact energy use and operating costs, but they are a necessary first step in helping to instill confidence with concerned tenants.

#### DESIGN CONSIDERATIONS FOR NEW BUILDINGS

Most will be able to incorporate some of these ideas into existing mechanical systems, but for new construction, there are additional considerations.

In new projects, developers should consider mechanical systems that have the ability to provide increased levels of outside air into the building. They could also consider UVGI light systems in the cooling coil section of air handlers, similar to those used at hospitals or labs, adjusting airflow rates to increase effectiveness.

Also, there are building design issues to think about. Air handling equipment that can scale to increase filtration during crisis events requires more space and greater flexibility. It may also be preferable to design mechanical systems that can isolate a single floor or alter the air pressure on a floor to respond to a potential contamination.

Relative humidity is another important consideration of any system. [Studies have shown](#) that pathogens have a difficult time surviving at higher relative humidity levels. However, indoor relative levels above 60% humidity can have negative effects in certain environments, such as facilitating the growth of mildew. So, providing for a tighter range of humidity (40-60%) can mitigate pathogens without causing other adverse effects.

Finally, all of the strategies discussed here depend on our ability to measure air quality. Building owners should look to standardized measuring systems that can provide independent verification and add to user confidence. Providing transparency with these measurements through lobby displays or other technology is an important aspect of this strategy. When done right, air filtration systems can be an important element in the mitigation of the effects of pathogens — a key step toward improving indoor air quality and creating a safer, smarter, and more welcoming workplace.

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**SIMPLE SAVINGS**

# CUT HVAC MAINTENANCE COSTS UP TO 2/3

From retail centers to factories, maintaining your rooftop HVAC units can be an expensive challenge. Coil cleaning procedures can cost up to \$6,000 and, depending on the season, may need to be done weekly. PreVent® air intake filters keep cottonwood and debris out, slashing maintenance costs. Plus, MagnaMount® earth magnets make installation a snap. To see all the reasons PreVent is the simply better air intake solution, visit [permatron.com/prevent](http://permatron.com/prevent)

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## THE HUMAN COSTS OF IMPROPER AIR FLOW

Long indoor workdays can lead to numerous health issues related to poor air ventilation and quality. According to OSHA (U.S. Department of Labor, Occupational Safety and Health Administration), poor indoor air quality can cause fever, coughs, shortness of breath and asthma. It can also lead to more serious health problems such as lung cancer and heart disease. Many of the short-term issues can be characterized under the relatively broad subject of Sick Building Syndrome. Sick Building Syndrome, an illness marked by headaches and respiratory problems, is “the main cause of absence from work and low efficiency of staffs and employees” according to the U.S. National Library of Medicine.

Numerous studies have also shown that poor air quality hinders employee performance. Workers in environments with poor air quality or inadequate circulation are often sluggish, complain of being tired, and may make decisions slower and with more errors. On the other hand, good air quality can boost performance. A study completed

by Harvard and Syracuse Universities showed cognitive ability doubled in buildings with “green building conditions.” This was defined as buildings with higher rates of ventilation and reduced volatile organic compounds.

Even a relatively small amount of poor air quality can be detrimental. As reported by the U.S. National Library of Medicine (in a report titled, The effects of indoor air quality on performance and productivity) decreased employee productivity due to poor air quality can occur even “at pollutant levels that had no measurable effects on the perception of air quality by the occupants themselves.”

### **THE HIGH TECH EQUIPMENT COSTS OF IMPROPER AIR FLOW**

While the human costs of poor air quality have significant financial implications, the costs to high tech equipment are potentially even higher. Mold, fungus and bacteria are not only harmful to people, but to machines. They can grow unchecked in humid and unventilated areas, infecting equipment and greatly reducing its longevity. Indoor contaminants can also corrode circuitry including circuit boards (especially in older machines), as well as solder joints and conductive passageways. Furthermore, improper airflow can create “hot spots” that are harmful to sensitive equipment, which often work best in cool, dry conditions. Hot spots are especially problematic in Data Centers, although they can occur in any building interior that lacks good airflow.

### **KEEPING HVAC SYSTEMS RUNNING**

HVAC systems are complex, but the concept is fairly simple. Draw in air, condition it, and then redistribute, recycle or exchange it within an environment. This all works quite nicely, assuming the airflow isn’t blocked. That’s when problems can start.

To maintain proper airflow HVAC units need to be kept clean and free from

damage. That may seem obvious, but remember that components of the HVAC system are outdoors on the roof, where they are out of sight and “out of mind.” Sitting up there, usually without any sort of protection, leaves them vulnerable to hail, as well as high winds and storms, pests and airborne debris. With all these outside elements creating potential obstacles, it’s quite a marvel that these units work as well as they do!

Cottonwood is a particularly frustrating problem. Generated by the poplar tree and common in many areas of North America, the cottonwood debris season lasts from May thru early August. Dense airborne cottonwood may necessitate frequent, even weekly, HVAC air intake fin and coil cleanings. But every season poses its own threats. For example, during late autumn, trees drop their leaves, much of which blows around and seems to eventually end up inside HVAC equipment.

### **Here are the main threats that restrict HVAC air flow:**

- **Airborne debris clogging equipment air intakes**
- **Fin damage from hail and storms—the outside fins on the machine can become dented and pressed against each other, restricting the flow of air**
- **Condenser coils damage—these are needed to facilitate the transfer of heat from the refrigerant to the outside air**
- **Prematurely dirty air filters that force equipment to work harder and run longer, resulting in higher energy costs, equipment breakdown, and reduced equipment longevity**
- **Torn or damaged filters, often the result of moisture or environmental exposure, which may be unable to capture contaminants at all**

But ongoing care, cleaning and upkeep will lower HVAC energy costs, as well as repair costs and more.

### **THE HIGH COST OF HVAC CLEANING**

If only upkeep was simple and inexpensive. Unfortunately, it is often neither. One problem is access: rooftop equipment can be inconvenient to reach.

[CLICK HERE FOR FULL REPORT](#)

# How Can HVAC Systems Support Employee Health in Response to COVID-19?

**Gary Kuzma, practice leader of engineering in HOK's Houston office, joins Peter Sloan director of interior design in Kansas City, and Vanessa Hostick, sustainable design leader in Kansas City, in examining the role of HVAC systems in controlling the spread of infectious diseases in office space.**



Scientists still don't fully understand how COVID-19 is transmitted—or [whether aerosolized particles can spread it](#). Even so, many organizations are considering modifications to their buildings' HVAC systems as part of their plans for bringing staff back into the office after the

COVID-19 lockdown. Though there are still questions about the effect of ventilation systems on infections, it's well known that indoor air quality has a significant impact on people's physical and mental health—and that employee well-being will be especially critical in the new post-pandemic world.

It's important to carefully vet all information about the relationship between COVID-19 and HVAC systems. Some can be misleading, and some we've seen is just plain wrong. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) is one trusted source that continuously updates its technical information and resources page addressing the impact of COVID-19 on HVAC systems. We also suggest consulting on best practices with a qualified mechanical engineering firm. Depending on a company's circumstances, connecting with local infection prevention specialists also could be beneficial

A recent ASHRAE position paper that provides guidance for building owners notes that, when it comes to reducing the spread of the virus, “basic principles of social distancing, surface cleaning and disinfection, handwashing and other strategies of good hygiene are far more important than anything related to the HVAC system.”

That said—and with the possibility that HVAC systems can help contain the spread—there are steps building owners and operators can take to retrofit existing buildings to help reduce bacteria, viruses and other indoor airborne pollutants.

### **1. Begin by working with building management to determine whether the existing HVAC system is operating as designed.**

This requires a commissioning process that assesses the current performance of the building’s HVAC system. Some buildings already have HVAC monitoring systems. Even if they do, however, most aren’t regularly recalibrated to ensure that the data is accurate.

Looking ahead, we can foresee the installation of more advanced building automation systems that evaluate HVAC system performance in real time and even predict corrective measures in advance. As we do for our own annual health checkups, owners and operators will establish long-term relationships with commissioning agents for regular preventative maintenance.

### **2. Consider increasing the amount of outdoor air to dilute airborne contaminants.**

HVAC systems should comply with the outdoor air ventilation rates required by ASHRAE 62.1, which already are considered best practice and are part of many building codes. Increasing the outdoor air ventilation rate beyond this standard—the LEED rating system gives credit for a 30 percent higher rate, for example—can enhance indoor environmental quality (IEQ) and create overall healthier environments.

The building HVAC system must be able to handle the surge in cooling and heating loads associated with a boost in outdoor air. Increasing the outdoor ventilation rate above what a HVAC system is designed to properly de-humidify in humid climates, for example, could cause an unpleasant and undesired increase of humidity in a building.

### **3. Improve central air filtration.**

There’s an ongoing debate about whether air change rates should be increased or decreased to create a healthier office environment. Our recommendation as

it relates to addressing COVID-19 is for organizations to stay with their original strategy for air change rates. But they can focus on air *quality over quantity* by installing more efficient air filters.

Filters with a MERV (Minimum Efficiency Reporting Value) rating of less than 13 do not remove particles in the size range of most viruses that are smaller than 0.3 microns. MERV 13 filters improve filtration efficiency of small particles and are approximately 50 percent efficient for particles from 1.0 micron down to 0.3 microns in size, while MERV 14 filters are 75 to 85 percent efficient in removing these particles and HEPA filters are more than 99 percent efficient. HEPA filters usually are not practical for office applications for reasons related to cost, energy use and operations. Though many newer office buildings already have MERV-13 or MERV-14 filters, older buildings may require more physical space to accommodate them—as well as more powerful air-handling systems to overcome the added air resistance. ASHRAE also recommends sealing filter frames to reduce bypass around the racks and, in some cases, running HVAC systems longer—though 24/7 operations would be costly and may not provide the commensurate benefit

#### **4. Maintain optimal humidity levels in the space.**

Viruses thrive in low-humidity environments. While maintaining 40 to 60 percent relative humidity is ideal for health reasons, keeping it at a minimum of 40 percent is not practical for most office applications. The HVAC systems for most office spaces don't incorporate humidification. The amount of moisture needed to offset dry outdoor air during the winter and in arid climates largely impacts the cost and decision not to include humidification. Condensation control also has to be considered when outdoor conditions are far different than indoor conditions, which is often the case when outdoor temperatures drop below freezing. The industry standard indoor high limit for most building types is 60 percent relative humidity, which is often achievable without much fuss.

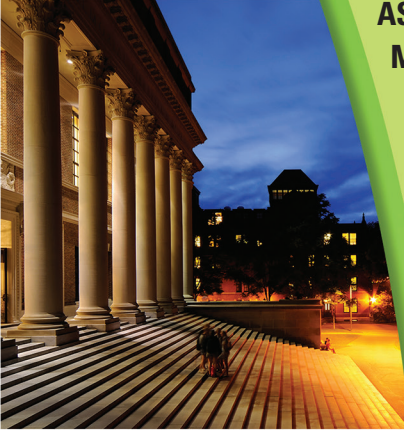
#### **5. Negative pressure rooms prevent the spread of infectious contaminants in medical and research environments, but are not viable solutions for office environments.**

Negative room pressure, which controls air flow into a segregated environment, is effective in applications where spaces like labs or hospital isolation rooms are intentionally designed for isolation or containment. But doing this, which requires rooms with physical separation like full-height walls and doors, would be impractical and cost prohibitive for most offices environments.

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# Protect Your Facilities FROM AIRBORNE CONTAMINANTS



ASHRAE guidelines for COVID-19 suggesting MERV 13 or better air filtration makes the Dynamic V8 Air Cleaning System an ideal choice for retrofitting into existing buildings

- MERV 15 performance with a MERV 13 or MERV 14 rating (power off).
- Enhanced ability to remove ultrafine particles, odors and VOCs, without ionizing or Ozone generation.
- Very low pressure drop enables retrofitting into HVAC systems not designed for high-efficiency air filtration.
- Highest dust holding capacity on the market (10 times higher than standard cartridge and bag filters).
- Extend filter change-out intervals from every few months to every several YEARS.
- Consumes 2/3 less fan energy compared to MERV 14 filters.



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# Filtration and HVAC Upgrades to Mitigate Infection Transmission

## How Dynamic Air Cleaners can help

There are many paths to transmission of COVID-19. There's been much focus on using social distancing to limit airborne transmission by expelled droplet nuclei between people in close proximity. That is an important measure. However, droplet nuclei quickly get smaller and may also stay airborne long enough to be entrained into HVAC systems. To prevent it from becoming a means of distribution, MERV 13 to MERV 16 filtration is being recommended by ASHRAE, as well

as other measures, such as ultraviolet germicidal irradiation (UVGI). Dynamic has a range of systems that can help to protect facilities in the fight against COVID-19



### THE DYNAMIC V8 AIR CLEANING SYSTEM

The Dynamic V8 provides MERV 15 performance, with lower pressure drop and a far longer service life than passive alternatives. In the normal course, the Dynamic V8 Air Cleaning System has many advantages over

passive filters. It is widely used as both a retrofit and in new construction in critical applications such as laboratories, healthcare, military installations, and art museums. In the current situation, the Dynamic V8 has several specific advantages:

#### **Low pressure drop allows for retrofit into a wider range of systems:**

The higher static pressure inherent in high-efficiency passive filtration upgrades make them difficult or impossible in many instances. The Dynamic V8, with its low static pressure, no pre-filter, and flexibility of design allow it to be used in many situations where passive filters cannot be used. Dynamic V8 systems can

be permanently mounted in AHUs for upstream or downstream access; in slide-out racks for packaged equipment; or duct-mounted in VRF applications. With a clean static pressure of typically less than .3" w.g., there a lot of options.

**Longest Maintenance Cycle:** In actual installations, Dynamic V8 Air Cleaning Systems without pre-filters will last 2-5 years between changeouts. Again, in the normal course, this means less energy consumption, less landfill, and less labor. In the current crisis, maintenance staffs are stretched thin and changing filters is not only time-consuming, it is also dangerous.

**Positive Seal:** The seal of any filter is critically important to its effectiveness in the field. A small gap can allow an astonishing amount of unfiltered air to get around the filter. The Dynamic V8 has a positive seal throughout its construction to eliminate bypass. The media pads seal inside the frames; the frames seal to the assembly; and the assembly seals in the rack.

**A Deeper Cleaning of the Air:** The MERV test is a useful tool for comparing filtration options. However, it is not the whole story:

Firstly, it does not take into consideration particles below 0.3 micron. Secondly, it does not consider changes in particle size distribution.

Like all Dynamic polarized-media air cleaners, the Dynamic V8 uses an active, non-ionizing, DC voltage to create an electrostatic field that polarizes both the media fibers and the particles in the air. This gives Dynamic Air Cleaners the ability to agglomerate and collect ultrafine particles. For example, in an in-situ test in an urban environment, a Dynamic V8 Air Cleaning System in a commercial building yielded indoor levels of ultrafine particles (0.015-0.1 micron) that were 92 to 99% lower than outdoor levels.

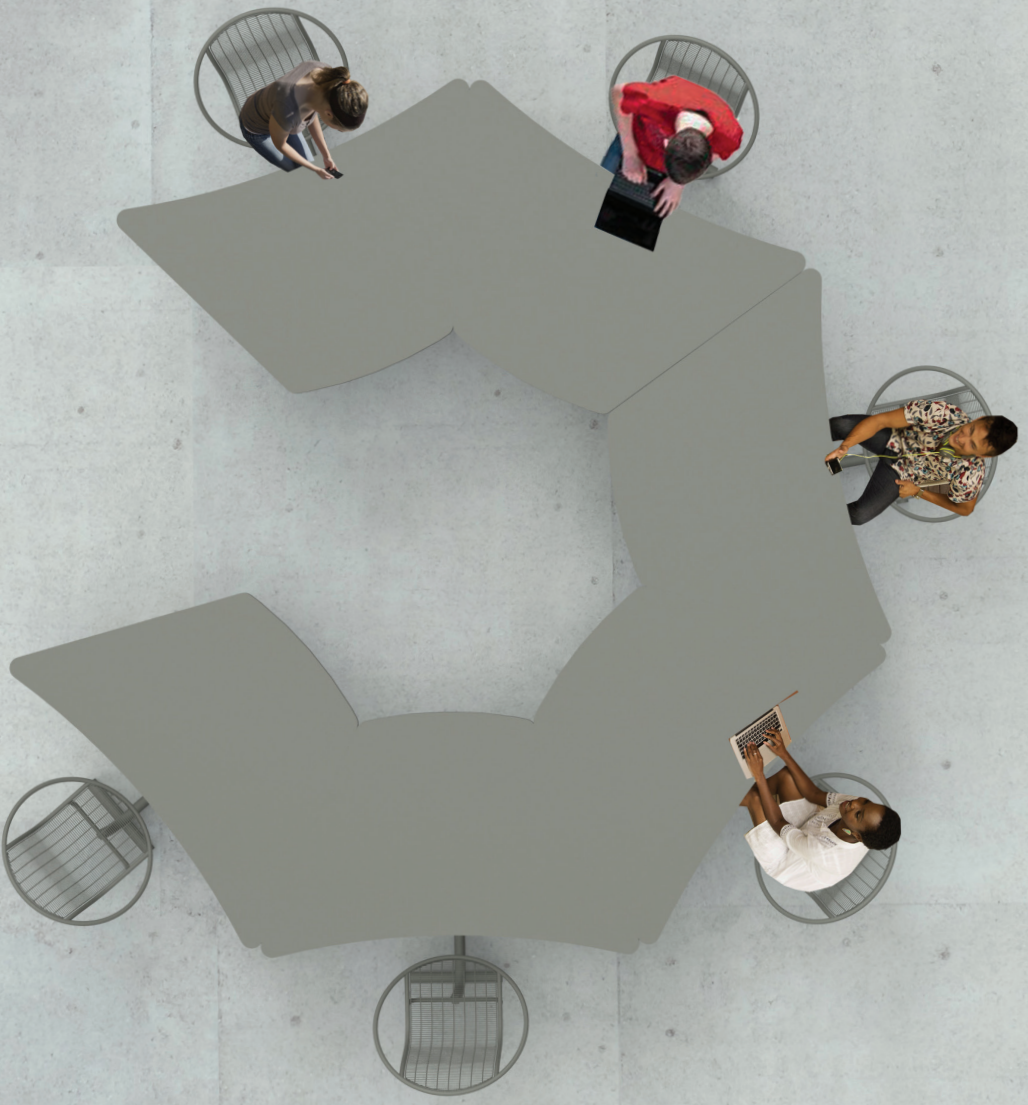
#### UVC SYSTEMS DESIGNED FOR AIRSTREAM CAPTURE AND INACTIVATION

UVC has been used for decades to inactivate molds, bacteria, and viruses in air and water. Most UVC in HVAC applications is optimized to inactivate biologicals that might be on the surfaces of coils and in drain pans. Dynamic Sterile Sweep® UVC Systems couple high output 254nm UVC lamps with translucent glass media in Dynamic Air Cleaners, in a "Catch, Hold, Kill" configuration optimized for airborne inactivation. This provides the necessary contact time for UVC to work.



Dynamic Sterile Sweep UVC

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# Healthy Outdoor Spaces: Discover New Solutions to Create Wellness Outdoors

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As employees return to offices, students to campuses, and the public to social venues, the need for safe and confidence-inspiring natural spaces that facilitate responsible collaboration, connection, and social interaction is more important than ever. **Healthy Outdoor Spaces** is created with this context in mind, drawing on Landscape Forms' fifty-one years of thought leadership and experience in connecting people with the outdoors to support their health and overall well-being.

For more information email us at [site-furnishing-solutions@landscapeforms.com](mailto:site-furnishing-solutions@landscapeforms.com) or call 800.430.6207.

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# Outdoor spaces: The new opportunity to activate and invest in well-being.



“The many health benefits of spending time outdoors is well documented in research,” reports Sara L. Warber, M.D., Emeritus Professor at the University of Michigan. “The simple act of spending time outside makes people healthier.” Indeed, as employees return to offices, students to schools and the public to

social destinations, the need for outdoor spaces that enable safe and responsible social interaction and a connection to nature seems more important than ever. Fortunately, many buildings and venues already have, or can easily repurpose, unused outdoor spaces to promote the well-being of their visitors.

## **UNLOCKING UNTAPPED PROPERTY VALUE.**

The benefits of activating outdoor spaces, however, are not limited to the individuals that visit them. Outdoor spaces are some of the least expensive to develop and can pay generous returns for property owners, developers and managers—in terms of maintaining a healthy and engaged workforce or community, promoting economic activity in surrounding areas, and creating an overall environment of safety, comfort and well-being for their properties.

As the word suggests, the “outdoors” begin just on the other side of the door, and enhancing the usability of spaces adjacent to, in between, and immediately surrounding buildings is now easier than ever.

landscapeforms

**NEW SITE SOLUTIONS FOR A NEW ERA.**

With the current urgency to enable social distancing and safer public interactions, some companies are introducing new solutions to promote healthy and confidence-inspiring outdoor experiences. One

is Landscape Forms, a Michigan-based designer and manufacturer of site furnishings. The company has long understood the connection between personal well-being and spending time outside. “We were founded fifty-one years ago on the belief that being outdoors is an important part of a healthy lifestyle,” says Landscape Forms Chief Executive Officer, Marjorie Simmons. “So extending our culture of innovation to help alleviate the new public health concerns while inspiring the use of underutilized outdoor spaces is a natural step for us.”



Landscape Forms has just introduced Healthy Outdoor Spaces, a collection

of new and modified products and space planning solutions designed to help property owners, developers and managers address the opportunity. Products in the Healthy Outdoor Spaces collection include innovative design features like visual cues to denote appropriate distancing, modular panels and barriers to direct flow of public traffic, and structural

elements that elegantly define safe spaces for small groups. They are design-forward, built to stand up to the elements, and deftly keep people safely distanced -- yet still very much connected to each other and to their natural environment.

**RESPONDING TO THE NOW WHILE PLANNING FOR THE FUTURE.**

Integrating unique outdoor experiences into corporate, school and public spaces will continue to play a key role in elevating a property’s desirability and the quality of life for those who inhabit it. New offerings like those from Landscape Forms are not only timely, effective answers to current public health concerns -- they are also important investments in future-proofing these venues by meeting the new expectations for community well-being that will endure and persist over time.

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# PART 4

## CASE STUDIES

[CLICK ON TITLE TO GO TO PAGE](#)

A Day in the Life: Going Back to Work in China (Gensler).....	87
Wynn Las Vegas Unveils Health and Sanitation Plan, Paving Way for Vegas Strip to Slowly Reopen (Meetings Today).....	90
Northwestern Memorial Hospital and Max Burger (Excel Dryer) .....	93



Courtesy of Gensler

# A Day in the Life: Going Back to Work in China

By Francois Chimier

*Editor's note: This post is part of our ongoing exploration of [how design is responding to the COVID-19 pandemic](#).*

As the COVID-19 pandemic expands and more countries around the world implement strict nationwide quarantines, in China we are slowly experiencing the next step: going back to work. Here's what we learned during our return to Gensler's Beijing office

## AT HOME, BEFORE LEAVING

After a period of quarantine and working remotely at home, going back to work requires a mental effort, because we know there's still a risk that we'll catch the virus and spread it to our families.

It starts the minute you leave the house, when you reach for a new mask to cover your mouth and nose. If you forget it, the guards at the one remaining exit from your community will remind you and not let you leave until you wear one. Also, remember to put your small disinfectant bottle in your pocket and be sure there's enough inside to last all day. It can really be useful.

**TAKING PUBLIC TRANSPORTATION**

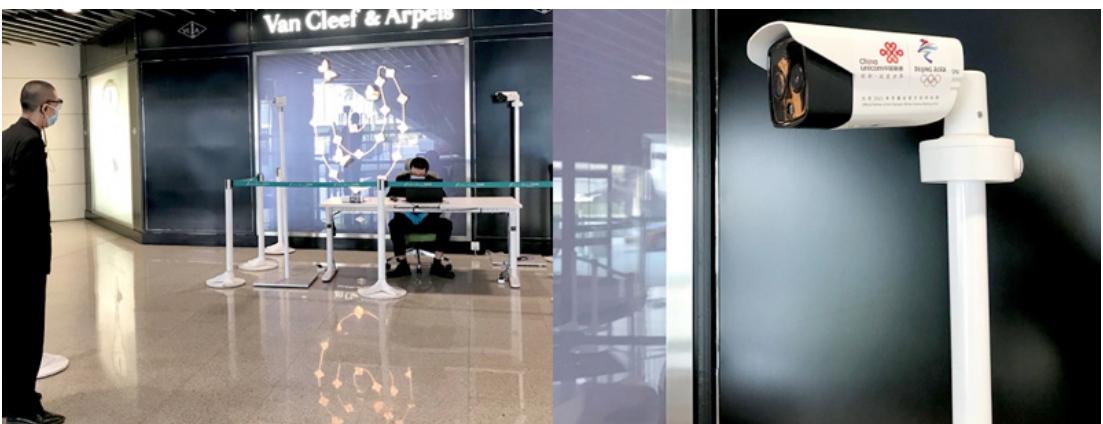
Like many in China, I don't own a car. Should I use a shared bicycle? If so, I know I'd better wear disposable gloves or disinfect the handlebars. But, depending on the material they're made of, handlebars (and their grips) can be a real challenge to disinfect.

I opt for public transportation instead and walk to the nearest subway station. There I find a welcoming committee of police officers that checks everyone's body temperatures and ensures that everyone is wearing a mask. If you don't follow the regulations, the officers will warn you and, in some cases, detain you. If you have a fever, you'll be pulled aside and an ambulance will take you to quarantine. My temperature is OK, so I can move on.

The subway station is clean. It's now completely disinfected every day. I avoid the elevator and take the escalator down to the platform. On the train, I keep a reasonable distance away from other passengers and try not to touch any surface. There's an app that allows me to check the coach load ratio. If the load is greater than 50%, I might wait for a less congested train to come along.

**ARRIVING AT THE WORKPLACE**

Like every building and community in Beijing, our office building has closed all but one entrance. It serves as the checkpoint. There, building security personnel checks body temperatures and ensures everyone is wearing a mask. The body



Courtesy of Gensler



temperature scanning systems have been improved since the beginning of the outbreak — going from infrared thermometers to infrared cameras — allowing people to pass seamlessly. Again, if your temperature is too high, an ambulance will be called to come pick you up.

Many communities have installed tents to isolate potentially infected people, but our building took a more inspired approach. They modified a glass-enclose smoking booth into an isolation corner — removing the ashtrays and installing two chairs and a coffee table.

### PERSONAL TRACKING

Beyond this checkpoint, I need to clear another hurdle in the building's lobby. There, a building staffer checks our E-pass, a badge that has to be updated daily. If we lack either an entrance card or E-pass, then we need to register at the desk, where one-meter (3 foot) spacing between people has been marked on the floor. In practice, we need to scan a QR code to access many buildings and public places in China. This tracks our itinerary over the past 14 days and determines if we can access the place or not.

In Shanghai, Shenzhen, Hangzhou, and other cities, many places require the Alipay app QR code that links your location data to an algorithm, analyzing where you have been during the past two months. A green code indicates if you have been in Shanghai and have not traveled much, allowing you to access major malls, hospitals, and other public places. A yellow code means you have been to potentially compromising areas that might have exposed you to the virus. A red code denies access altogether, meaning you have likely been in a place at the same time as a sick person.

[CLICK HERE FOR FULL REPORT](#)

# Wynn Las Vegas Unveils Health and Sanitation Plan, Paving Way for Vegas Strip to Slowly Reopen



In an effort to curb the spread of COVID-19, Wynn Las Vegas was one of the first casino resorts to close in Nevada, even before Governor Steve Sisolak's mandate to close nonessential businesses. Wynn Resorts CEO Matt Maddox has revealed the property is slowly preparing to reopen for business and will unveil major technology, sanitation and social distancing measures to keep its customers safe.

Wynn and Maddox released a [health and sanitation plan](#), developed in consultation with public health and medical professionals. In it, Maddox states that he believes parts of the Nevada economy and the Las Vegas Strip can begin to open in mid- to late May, assuming the state is in line with benchmarks and extensive safety measures are in place.

Wynn's ambitious reopening strategy and [safety precautions](#) could serve as a blueprint for other major hotels and meeting facilities.

## WYNN'S REOPENING HEALTH AND SANITATION PLAN INCLUDES:

- Using **thermal cameras** at entry points to detect if an employee or guest has a temperature of more than 100 degrees F. Anyone over that marker will be taken to a private area for a second temperature check.
- Advising guests to **physically distance** themselves from other guests not traveling with them—no less than six feet apart—and employees from guests and other employees when possible. Slot machines, tables at restaurants and other physical layouts at Wynn will be rearranged to support the six-foot rule.
- Placing **hand sanitizer** at entry points and contact areas such as reception areas, lobbies, casino floors, meeting and convention spaces, pool, salons, elevator landings and exercise areas.
- Providing all employees with **COVID-19 training** on safety and sanitation protocols.

- **Monitoring** COVID-19 data every day, including hospitalizations and deaths per million, and pulling back or moving forward as needed.
- Allowing **no more than four guests per elevator**
- Using **signage** throughout the property to remind guests and employees to avoid touching their faces, wash their hands and proper ways to wear, handle and dispose of masks.
- Increasing the frequency of **cleaning and sanitizing public spaces**, including check-in counters, elevators and elevator buttons, public bathrooms, escalator and stair handrails, and gaming machines.

“We will continue to refine and update the plan as our experts provide us more advice,” Maddox said in a statement, adding: “I understand that if we incrementally reopen, we might have to pull back if a spike in cases occurs that jeopardizes our healthcare system capacity. However, the only way to cross this river is one stone at a time, and we need to put our feet in the water before it is too late.”

Upon arrival, guests of the hotel will be asked to sanitize their hands and to wear a mask provided by the resort. Guests will also receive an “amenity bag” during check-in that will include masks, hand sanitizer and a COVID-19 awareness card. Wipes and spray sanitizer will also be available in each room, subject to availability.

Meeting and convention spaces will be open, with set-up arrangements that allow for physical distancing between guests based on Centers for Disease Control and state recommendations. The property will suspend buffet-style food service in these spaces and replace it with “alternative service styles.”

“This plan presents what we will do to keep our guests, employees and our community safe,” Maddox said in the statement. “Each operating department has its own customized set of procedures, even more detailed than the 20-page summary presented here.”

Maddox also noted that Wynn has continued to pay its full-time and part-time employees while the resort is closed, for 60 days through May 15, including an estimate of tips they could earn. According to Maddox, the property is spending \$3 million per day to do this.

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.....  
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TIME TO THROW IN THE TOWEL®



<sup>1</sup>Based on April 2020 testing performed by LMS Technologies



# NORTHWESTERN MEMORIAL HOSPITAL



## GOOD HYGIENE SAVES LIVES

It's emergency time at world hospitals, where hand hygiene is crucial to preventing infection in patients. Hand hygiene starts in restrooms, where damp paper towel waste is too often left unattended, overflowing receptacles and spreading bacteria.

After researching hand drying solutions, Northwestern Memorial Hospital in Chicago selected the XLERATOR as the most hygienic. The hospital's control board concluded that the XLERATOR's traditional, high-velocity air stream was hygienically superior to trough-style hand dryers, citing concerns that the troughs could catch and hold pools of water that could breed bacteria.

They made the switch to XLERATOR, installing more than 120 dryers in its restrooms. "After installing the dryers, our plumbing issues were eliminated and

our bathrooms were cleaner," says David Stout, Director of Facilities Engineering.

**"A primary focus has been reducing maintenance needs while improving sanitation. As washrooms are renovated, we're installing equipment and materials that are much easier to maintain, have longer life spans and keep the restrooms sanitary."**

David Stout, Director of  
Facilities Engineering

"We look at this product like it was tailor-made for us." At a time when hospitals are in greater demand, the hygienic XLERATOR Hand Dryer offers increased protection from bacteria and communicable diseases.



# MAX BURGER



## EVERYONE DESERVES A CLEAN RESTROOM

Before making the switch to XLERATOR, Max Burger used approximately 750,000 paper towels a year. And the costs and waste were piling up.

Max Burger's bad experience with bacteria growing in their previous trough-style hand dryers was one factor in their choice of XLERATOR. Another was

**“ Your restrooms have to be as clean as your kitchen; that goes without saying. If you have a guest who goes into a dirty bathroom, they're going to be scared. They're going to be wondering what's going on their plate.”**

Tim Taillefer, General Manager

staff and customer health. XLERATOR's touch-free drying experience cuts down on cross-contamination. “The flu can wipe out half my staff in a day,” says Taillefer.

Excel Dryer offers a HEPA Filtration System that removes 99.7% of potentially present bacteria and viruses at 0.3 microns from the air stream, and is the only hand dryer with a washable pre-filter and Antimicrobial Wall Guards. These features provide the ultimate hygienic restroom experience, sending diners and workers out into the world with cleaner hands.



\*Dry time and energy use testing performed by SGS International on standard XLERATOR Hand Dryer with 0.8" nozzle to 0.25g or less of residual moisture, pursuant to the UL Environment Global Product Category Rules (PCR) for Hand Dryers.

[CLICK HERE FOR FULL REPORT](#)

# PRODUCTS



## **BuzziTripl from BuzziSpace**

The BuzziTripl privacy panel collection is a net partition system that caters to communal workspaces and home offices. It has optimal acoustical properties due to a felt material developed and patented by BuzziSpace. The collection is divided into two main categories—BuzziTripl Desk for the office and BuzziTripl Home for the residential spaces. Each version comes in a range of height, corner shapes and colors. [buzzi.space](https://buzzi.space)



## **Aston Club from Arper**

Designed by Jean-Marie Massaud, the Aston Club lounge chair was created with ergonomic comfort and sustainability at its core. The internal components of the chair are made from recycled plastic from industrial waste and without the use of glue. It can be entirely disassembled, and all materials can be recycled or upcycled and incorporated into the life cycle of other products, reducing overall waste. Aston Club also uses a powder-based coat that is free of VOC emissions. A matching footrest is available and can be customized with myriad upholstery options. [arper.com](https://arper.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 aluminum for added durability with signage that can be customized to fit with specified design guidelines. [sandlerseating.com](https://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 ¾- to 1-inch diameter. [mockett.com](https://mockett.com)



## **Aqualogic Ozone Faucet Line from Lenova**

The Aqualogic Ozone Faucet Line is the first conventional faucet line that is also an ecologically safe way to clean food and any other water-safe surface without chemicals. Available as a standard single hole or pull pull-out side spout, the faucets feature a small, thin ozone generator that uses regular current to economically and naturally produce ozone water. The Aqueous Ozone produced is a powerful, clinically-proven and extensively tested broad-spectrum microbiological agent which kills viruses, bacteria, mold, yeast and algae within seconds of contact. [lenovasinks.com](https://lenovasinks.com)



### Privacy Panels from Studio Other

Studio Other introduces a new family of attachable privacy panels designed to offer a high level of flexibility for existing workstations. The panels are designed to help protect employee health in an adaptable, easy and attractive way as organizations move toward reopening their workplaces and for general use thereafter. They are available in six configurations and 18 colors to offer a range of options for integrating into the aesthetic environment. In addition, custom colors and materials are available as special orders. [studioother.com](http://studioother.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)



### Origins Collection by United Fabrics

Expanding on its longtime partnership with Sunbrella, United Fabrics has unveiled the Origins Collection, its first contract collection consisting of 50 new fabrics designed for the specific challenges of high-traffic commercial environments. Sunbrella Contract fabrics are fade-resistant and easy to clean, with technology that provides color to the core. The Origins Collection includes a variety of colors, patterns and textures for indoor and outdoor applications, including classic neutrals and trend-forward terracotta and teal. [unitedfabrics.com](http://unitedfabrics.com)



### Bloom Collection from Mannington Commercial

The Bloom Collection consists of three coordinating styles of high performance, heterogeneous sheet designed for healthcare and senior living spaces. The three styles—Wildflower, Meander and Wellspring—are available in eight colorways, encompassing warm and cool neutrals, as well as sophisticated blues and greens. Engineered to perform in demanding healthcare environments while remaining easy to clean, the Bloom Collection has a non-ortho-phthalate construction and is FloorScore Certified. For every square yard purchased, Mannington Commercial will donate 3% of the purchase price to Mercy Medical Angels. [manningtoncommercial.com](http://manningtoncommercial.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 that draw inspiration from the shades present in an early spring sky to the deepest depths of the ocean. [fildoux.com](http://fildoux.com)





### Rampart from Wolf-Gordon

Wolf-Gordon updates its RAMPART impact- and abrasion-resistant wall protection line with two materially-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 where abrasion, impact and scratching are a concern. It is ideal for high-end hospitality and healthcare settings, but also works well in corporate and education spaces. [wolfgordon.com](http://wolfgordon.com)



### Smart City from Mohawk Group

The Smart City collection—a 12-by-36-inch Living Product carpet plank system—reinterprets the transit maps of major cities and urban areas into soft surfaces for commercial interiors. The system includes Urban Model, which reflects the texture and rhythm of a metropolitan mapscape, and Urban Mobility, inspired by the subway systems of cities like Berlin, London and Paris. Mohawk Group collaborated with Gensler, serving as product design consultant, for Smart City. Its design and development were informed by the Gensler Cities Climate Challenge (GC3) and the AIA 2030 Commitment, initiatives that call for all new buildings, developments and major renovations to be carbon neutral by 2030. [mohawkgroup.com](http://mohawkgroup.com)



### Protective Acrylic Shields from Poppin

Poppin has launched a series of Protective Acrylic Shields, providing peace of mind for employees in an open-office environment. The clear acrylic shields can be used on any surface as a freestanding solution for personal protection. Available in 27-, 48- or 58-inch sizes, the shields can be freestanding or fit to install into a Poppin Series A or Series L Desk. Each shield also has cable cutouts to avoid cord clutter and flexible plastic hinges that allow for a range of motion relative to the center of the panel. [poppin.com](http://poppin.com)



### Recovery Pod from Allseating

Designed to meet the needs of healthcare institutions and triage centers, this seating solution is Allseating's innovative response to the growing and changing demands of the healthcare industry. Equipped with USB charging ports, a side table and privacy walls, the custom recovery pod was conceptualized using existing parts from Allseating's modular soft-seating line, Exchange. The Recovery Pod can be easily and affordably reconfigured and covers can be reupholstered, meaning at any time, it can be converted into seating for waiting areas, staff lounges, family rooms and more. [allseating.com](http://allseating.com)



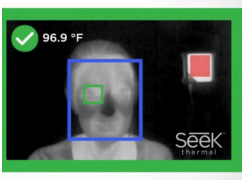
### Raia and Encircle from Designtex

Raia and Encircle are two new upholstery-coated fabrics designed to bring balance to environments through the use of materials that reference the restorative patterns, forms, textures and colors of nature. Raia, available in seven colors, and Encircle, available in six colors, were tested and prototyped to meet the most stringent needs of all healthcare spaces while also being applicable for any other commercial environment. The fabrics are engineered to perform from the inside out allowing the use of repeated cleaning and disinfecting with bleach, quaternary and phenol germicides, as well as, alcohol- and hydrogen peroxide-based disinfectants. [designtex.com](http://designtex.com)



### Varia Desk Partition from 3form

3form has created a line of desk partitions that provide a surface made to withstand the demands of everyday use and rigorous cleaning. Additionally, the hardware does no damage to the existing desktop when removed. The translucent desk partition utilizes Varia, a durable, architectural-grade resin. Varia contains 40% pre-consumer recycled content, is GREENGUARD Indoor Air Quality Certified, carries a strong fire rating and comes with a Declare label. Varia offers a multitude of pattern options including hand-crafted artisan designs, biophilic interlayers, modern textiles, digitally printed imagery and 250 different colors. [3-form.com](https://www.3-form.com)



### Seek Scan (Seek Thermal)

Seek Scan from Seek Thermal is a simple, low-cost thermal imaging system designed to automate body temperature screening using skin temperature as a proxy. The product is designed and calibrated to deliver accurate skin temperature measurements while enabling social distancing protocols. In seconds, according to Seek Thermal, the system automatically detects a face, identifies the most reliable facial features for measurement and displays an alert if someone is warmer than the customizable alarm temperature. Seek

Scan can be installed in lobbies, hallways and other key access points. *Diagram and scan of body thermal courtesy of Seek Thermal* [thermal.com](https://www.seekthermal.com)



### ThermoRebellion (Honeywell)

Honeywell also recently launched a new thermal imaging camera, ThermoRebellion, which can conduct a non-invasive preliminary screening of personnel entering a facility using infrared imaging technology and AI algorithms. According to Honeywell, the camera detects skin temperature within two seconds and displays it on an accompanying monitor.

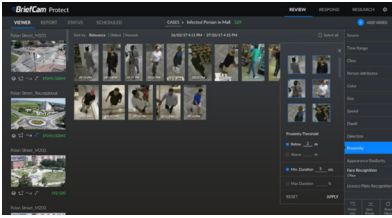
The product can also identify whether personnel are wearing the required personal protective equipment needed for entering the building. It can be deployed at entryways of factories, airports, distribution centers, stadiums and other commercial facilities. *Thermal scan showing body temp and PPE detection Courtesy of Honeywell* [honeywell.com](https://www.honeywell.com)



### CSE1008 (CENTRIC)

CSE1008 detector gateThe CSE1008 walk-through body temperature detector gate features a non-contact temperature sensing system. The screening gate is also light-weight and portable and can help ensure everyone is screened before entering.

CSE1008 also offers an ADA-compliant door and visual and audio alarms for signaling abnormal temperatures. Real-time, LED display shows the body temperature. *Photo courtesy of CENTRIC* [centricpe.com](https://www.centricpe.com)



## Updated video analytics from BriefCam

BriefCam recently announced new capabilities to its product portfolio of video content analytics that are meant to help prevent the spread of COVID-19 and support safe re-opening of facilities. New features include:

- **Proximity identification:** To ensure social distancing compliance, this allows users to review video to identify individuals who were in proximity to another individual for a determined duration of time. It can also be combined with face recog-

nition and appearance similarity capabilities to determine if a person has been in contact with COVID-19-infected people.

- **Face mask detection:** Users can search for people with or without a face mask, as well as detect and alert on face mask violations in real-time.
- **Occupancy controller:** Users can maintain building occupancy requirements (which might have tightened to comply with local post-shutdown restrictions). This new feature can count people as they enter and exist a facility across multiple cameras and entry and exit points. When the threshold is met, an alert can be sent to the appropriate destination. *BriefCam software screenshot Courtesy of BriefCam* <https://www.briefcam.com>



## Connectrac GO (Connectrac)

Woman using connectrac at table speaking to colleague at an appropriate social distance. Many facilities are reconfiguring workspaces to increase the distance between people, but that can create new challenges if people move further away from outlets.

Connectrac GO, a portable, pluggable wireway that corrals power and data cables, moves connectivity wherever you need it. *Photo courtesy of Connectrac* [connectrac.com](https://connectrac.com)



## Rockwood Arm and Foot Pulls (ASSA ABLOY)

Arm pullASSA ABLOY's Rockwood product line recently launched a series of hands-free door opening solutions.

Rockwood arm and foot pulls are easy-to-install, cost-effective options for hands-free door operation, so FM's can reduce the spread of germs and bacteria throughout their facility. The products are ideal for schools, offices, restaurants, stores, medical offices, arenas and more. *Image courtesy of ASSA ABLOY* [assaabloy.com](https://assaabloy.com)



## Touch-Free Elevator Call System Smartphone App (Mitsubishi Electric)

Smartphone showing Touch-Free Elevator Call System AppFor buildings outfitted with Mitsubishi Electric's Sigma AI 2200C Destination Oriented Allocation System (DOAS) elevators, building owners can implement the affiliated smartphone app that allows occupants to call elevator cars remotely from their mobile devices.

The app displays the user's assigned elevator and current status and alerts them as the elevator car approaches for touch-free boarding. Users can even sync their security-issued ID cards so that when they swipe for entry into the building, the app will call an elevator directly to their office floor. Alternatively, users can call an

elevator from anywhere in the building and set both the arrival and destination floors in advance.

The goal is to help elevator passengers avoid touching common surfaces and prevent the spread of germs. *Image courtesy of Mitsubishi Electric* [mitsubishielevator.com](https://mitsubishielevator.com)