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How to: Welcome People Back to the Office
How to: Welcome People Back to the Office

Is the Office the Great Equalizer?

By Liz Wolf

Due to pandemic lockdowns and quarantines, the whole world has been thrown into a year-long, work-from-home experiment, a trend that struggled to gain a foothold prior to COVID-19. Only one in five workers say they worked from home all or most of the time pre-pandemic, according to a new Pew Research Center survey. Now, in an astonishing shift, 71 percent say they’re doing their job from home all or most of the time.

Across the United States, people were forced to vacate their offices last March and find ways to work remotely. What’s clear is that not all home work setups are created equal. While it may be going smoothly for those with dedicated workspaces, gigabit Internet and ergonomic office furniture, others struggle working at kitchen tables with spotty Wi-Fi and distracting roommates.

“I think it was very telling early on that, when we turned on our cameras for video conferencing, you immediately could tell people were in different work-from-home situations,” notes Hao Ko, principal and managing director at architecture and design firm Gensler.

Despite their technical proficiency, millennials and Gen Zers are having the most difficulty working from home during the pandemic. With no office to go to, they may struggle with unsuitable home workspaces and are missing opportunities to grow their networks as they look to climb the corporate ladder. They also miss socializing with colleagues. Millennials may be juggling working at home with raising young children. Then there are employees who can’t afford reliable Internet access and necessary equipment to do their jobs.

EMPLOYEES WANT TO RETURN TO THE OFFICE—AT LEAST PART TIME

As economies—and office spaces—reopen and vaccines continue to roll out, the U.S. will likely see more companies adopt a hybrid model, with employees splitting time between the office and home.
According to the recent Gensler U.S. Work from Home Survey, 88 percent of more than 2,300 workers said they want to return to the office in some capacity. Not only do employees miss interactions with coworkers and likely suffer from so-called “Zoom fatigue,” they feel they can be more productive at the office due to the extreme differences in remote work setups.

Some experts worry that working remotely threatens the workplace equity that traditional offices have always provided employees. In many ways, the office is the equalizer as people have equal access to the tools they need to succeed, says Lisa Cholmondeley, principal and architect at Gensler.

“What was good about the office—and will be again in the future—is it offered a common ground for everyone,” Cholmondeley explains. “It didn’t matter where you came from, what your home situation was. When you came to this place, you often had the same desk, the same Wi-Fi, the same tools, the same software. It was a more even playing field.”

Now, as more companies move to a hybrid model as they slowly welcome employees back to the in-person workplace, the challenge is whether companies can help create an equitable work environment where one person is working on a sofa with slow internet and another has a decked-out home office with a Wi-Fi hotspot.

“The question is, how do we maintain that equity of tools so that everyone has the same kind of chance to have their talents grow—whether they’re at home or in the office?” Cholmondeley asks. “How do you make sure that the people who are remote and on the screen in the meeting have the same access and opportunities as those in the office?” One way is making employees feel supported.

**SUPPORT IS KEY**

During this hybrid time of transition, firms may need to find ways to expand the principles of office equity to employees’ homes by investing in technology and resources to improve work-from-home environments, including better Wi-Fi, office furniture and monitors. Some companies are offering employees stipends to purchase office equipment and furniture while others are loaning items out.

“There’s also talk by some companies that they will have everyone on a laptop—even if you’re in the room together—so everyone has the same experience as those working from home to improve equity,” Cholmondeley notes.

**OFFICE SPACE CONNECTS PEOPLE**

While the office provides essential tools to work, it also provides valuable access to people. Many opportunities exist across departments to attend meetings, after-hour social networking, impromptu get-togethers and engagements with senior management.

“When going to the office, not only does it equalize in the sense of the access you have to certain resources, it also just adds that social aspect we as humans desire and need in some capacity,” says Kamillah Knight, co-founder of Éclat Culture LLC, which offers coaching and consulting services to organizations around diversity and inclusion.

Knight also says the office is about experiences.

“When you’re in the office, you might walk up and have a conversation with someone at the water cooler or in the cafeteria,” Knight continues. “There’s a whole level of experience that I think is missing that you can’t really mimic via Zoom or Microsoft Teams.”
While the physical office matters in many ways, Knight also says there are new opportunities that have come out of this virtual environment. For example, companies invest significantly in in-person training, often with a cap on how many employees can participate.

“It's probably only your senior employees who traditionally have been invited,” Knight says. “But now with everything being virtual, you can have hundreds of people sign on to this call, so it's saving companies money in that capacity and making sure that they're actually reaching more employees. I do think there are some cool things that I'm sure companies will continue to utilize once we’re back in the office, like hosting these virtual trainings.”

The office also offers the ability to make spontaneous connections with people of different backgrounds, ages, zip codes and lifestyles, which can support equity, according to Gensler.

As awareness around issues of diversity and inclusion grows, more emphasis will be placed on learning about and respecting different cultures, backgrounds and lifestyles. The post-pandemic office can be a way to reconnect people in new ways.

WHAT’S IN STORE FOR FUTURE OFFICES?

While no one knows for sure what the future office will look like, Gensler believes it will be a place where people meet, socialize and work with each other. It will shift from a “work” place for individual work to a “convening” place for group work. Offices will build community, reinforce culture and strengthen relationships. Companies might split the work week with employees working at home for heads-down work and virtual collaborative meetings and coming into the office to work with teams and meet clients in person.

“I think the purpose of going into the office will be for more community,” Ko explains.

When you look at surveys, he says, the reason people want to go back to the office is to interact with others.

“If it's all about community, then the office will need to adapt and have more spaces where people can gather versus having more individual desks,” Ko says. “We also need more technology that can help support that interaction and make that experience of interacting just as robust for someone who’s remote as it is for someone who’s in-person.”

Cholmondeley envisions more places to stand and work, lounge seating and small collaboration meeting spaces.

Pictured: Renderings provided by Gensler display how open office space may be utilized in the future.
CHALLENGES WITH HYBRID MODEL

Despite its success during COVID-19, history proves that mixing virtual and in-office work might be tougher in the long term.

“When people start coming back to work, it’s going to be harder than people realize,” says Rachel Casanova, Cushman & Wakefield’s senior managing director of Workplace Innovation.

Pre-pandemic, Casanova says, people weren’t in the office all the time, as they were traveling, meeting clients or visiting other corporate locations. But then the dial was turned 180 degrees, and depending on the industry, everyone began working at home.

“Hybrid is not a third fit; it’s everything in between those bookends,” Casanova explains. “Everyone has to define their version, and it’s going to require an investment in people, process and technology. You’re going to have to manage people and work differently. This is going to be so much more complex than, ‘Oh, instead of being anchored at your desk, you’re anchored at home.’

But place matters—and office matters—and companies will try and work to figure it out, Casanova notes.

“The office provides a place to build purpose and community, and we know it’s still invaluable within the ecosystem of a company,” she explains.

When people return, it will be a whole system mindset from an HR and leadership perspective on how to manage process and performance.

“Only when we figure out the business changes—the processes, the technologies, the products we’re selling—and how they will continue to evolve, will we know what the long-term future of the office should be,” Casanova adds. (Check out BOMA’s Charting a Path to the Future of Office for more on the path to Workplace 2.0.)

NO GOING BACKWARDS

Ko worries that, when we return to the office, it will be easy to default to how companies worked before we went home, which was at the exclusion of those working remotely.

“What weighs on me heavily is making sure that in-person collaboration isn’t something that excludes those working remotely, but we really can enhance the experience of those who are remotely and make them part of that process,” Ko says.

There’s opportunity to rethink how people will go about working when they return. Some of these trends were already in progress, but COVID-19 has fast-tracked them.

“It would be a shame to let a good pandemic go to waste,” Ko points out. “Hopefully, the health scare will pass, and this leads to a better way of working; something that’s more innovative and inspiring and leads to more incredible spaces.”

ABOUT THE AUTHOR: Liz Wolf is a Twin Cities-based freelance writer with 30-plus years of business and commercial real estate reporting experience. She previously served as editor of the Minnesota Real Estate Journal.
Health Is in the Air
Effectively monitoring and reporting IAQ sets the stage for healthy business.

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There's no debating the importance of healthy air in office buildings. One of the effects of the COVID-19 pandemic has been a widespread acceptance that air quality matters. Building owners and managers understand that confidence about indoor air quality (IAQ) is an essential element for achieving a successful post-pandemic return to the office.
Everyone wants clean and safe workplaces, but the largely invisible effects of unhealthy air and potential for liability have historically dampened enthusiasm for monitoring and reporting air quality.

COVID-19 has changed priorities: Building owners and managers are investing in devices that measure IAQ and are sharing this data with building users.

Reassuring cautious commuters is proving to be an advantage for buildings where IAQ sensors have already been deployed. Systems that were installed to reduce energy consumption and the running costs of HVAC have taken on a crucial and highly visible role that aligns with “future of work” trends.

THE FUTURE OF OFFICES
Even prior to COVID-19, offices were adapting to changing work patterns. Although “working from home” has been a widely touted feature of the pandemic, the percentage of employees who have actually engaged in remote working saw only a modest rise, from 42% to 49%, according to Gallup. This relatively small increase indicates that most employees who could work remotely were already doing so at least some of the time. Physical offices are evolving into collaborative hubs—to places to stimulate teamwork, spark creativity and shape company culture. COVID-19 has accelerated this trend. It has demonstrated that remote working is productive, while emphasizing what is lost when teams cannot gather physically. However, this future is not a given.

Metro areas are fighting for relevance as corporate real estate is trimmed and reduced footfall makes local services unsustainable. Employees need to be persuaded to return. The onus is on building owners and managers to help their tenants motivate a return to the workplace.

Health is fundamental to this agenda. We live in an era of data-enabled well-being, using smart devices to measure and guide healthy lifestyles. Monitoring IAQ and sharing this data via digital signage and apps provides evidence that workplaces are safe and user experience is valued.
IAQ DATA WILL BECOME A STANDARD

WellStat leads the market for IAQ monitoring in commercial spaces. For an unrivalled price, its all-in-one device measures 15 risk factors and features unmatched industrial adaptability. Fast installation, zero maintenance and easy subscription-based purchasing have all driven WellStat's growth and made its IAQ monitoring a feature of landmark buildings across the United States. Now, the urgent need to restore building occupancy—and occupant confidence in building safety—are making WellStat’s ability to report IAQ data to dashboards and digital signage particularly advantageous.

“It’s important to give building users indoor air quality data they can trust and easily access.”
– Brock Nigg, CEO at iES MACH, makers of WellStat

“At the same time, building owners and managers need a solution that is affordable, reliable and as maintenance-free as possible,” says Brock Nigg, CEO at iES MACH. “WellStat is installed by our technicians, continuously calibrated over the air and provided ‘as a service,’ freeing capital and engineering resources to focus on other systems and amenities.”

In the short term, IAQ reporting will be a key differentiator among programs to welcome employees back to the office. Once returning to work is a given, longer-term considerations will take precedence. Integrating an IAQ monitoring system with building management systems offers the advantage of optimizing air quality while potentially reducing the cost of HVAC operations.

Learn more at wellstat.io or call us today at 833.935.5782.
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GET BACK TO BUSINESS

BIG ASS FANS | CLEAN AIR SYSTEM
Big Ass Fans’ Clear Air System Rids the Air of Harmful Pathogens—Including Those That Cause COVID-19

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Big Ass Fans developed the world’s first R&D lab for HVLS fans and have been pushing the limits ever since. Their Clean Air System has been independently tested and verified by third-party laboratories and implemented in a variety of spaces, including gyms, schools, and manufacturing plants.

**EFFECTIVE DISINFECTION VERIFIED BY THIRD-PARTY LEVEL-3 BIOSAFETY LABORATORIES**

Big Ass Fans enlisted independent third-party testing from some of the most respected laboratories in the country. These test results have shown that Clean Air System delivers more ions and 25 times more airflow to occupied spaces for disinfection that is three times faster than in-duct systems. Plus, it has been proven that Clean Air System can successfully deactivate SARS-CoV-2 (causes COVID-19) at a rate of 99.99%.

**BUSINESSES BIG AND SMALL ARE BENEFITTING FROM CLEAN AIR SYSTEM**

Whether it’s getting gym members moving, kids back to school or workers working, Clean Air System is impacting lives for the better. Big Ass Fans has chronicled how organizations like Toyota, Georgia Pacific, Orangetheory Fitness and others have been impacted by our system in detailed case studies. Get the complete story featuring these organizations and others at cleanairsystem.com.

For full product specs, third-party testing data and case studies, visit cleanairsystem.com. Call 888-312-1202 to talk to a Clean Air expert.
Responsible building owners know that regular preventative maintenance is a crucial part of owning a building. The rooftop endures more abuse from the elements than any other part of a building’s exterior, so routine preventive maintenance is critical in prolonging the roof’s service life and saving money for building owners. When a roof system is maintained properly, it performs better, lasts longer, and provides more reliable protection of a building and its occupants.

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- Re-roofing options available
- Recommended next steps

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* Carlisle can refer a design professional when necessary.

Don’t Delay. Request a Roof Condition Report Today.
Cover Your Assets

The roof is the only thing protecting what’s inside your building from the elements, but who is protecting your roof?

Oftentimes, building owners don’t give much thought to their roof’s condition until an obvious issue appears (e.g. leaking). While it may be possible to extend the life of your roof beyond its warranty period, even the most robust roof systems will need to be replaced at some point.

It’s important to consider the benefits you’ll gain by proactively repairing or replacing your roof, as opposed to letting mother nature dictate your project’s timing—especially during this transition back to higher building occupancy levels. By choosing to re-roof sooner rather than later, you can avoid excessive and costly damage caused by leaks. Additionally, the likelihood that your existing insulation can be reused is increased, resulting in a much more economical re-roofing project. Perhaps most importantly, you have the ability to plan around other potential building repairs, stick to your budget and get multiple bids. In nearly every case, re-roofing sooner rather than later provides many benefits.
11 THINGS TO CONSIDER WHEN IT’S TIME TO RE-ROOF

Prior to starting the re-roofing process, knowing the answers to the questions listed below will help you find a solution to meet your needs.

1. How long do you plan to stay in the facility?
2. Would you like to increase your R-value to improve energy efficiency?
3. Do you spend more money on heating or cooling your building?
4. Are you interested in reducing noise from outside your building?
5. Do you experience high winds or frequent hailstorms at this facility?
6. Are there areas on the roof that pond water for prolonged periods of time?
7. Do you have issues with snow accumulation on the roof?
8. How much traffic do you have on the roof to service HVAC units or conduct other maintenance?
9. Are you considering adding solar panels or other amenity space to the roof at some point in the future?
10. Can disruptions from noise or odors during the re-roofing process be tolerated?
11. What kind of chemicals, fats, oils or greases are being exhausted onto the roof?

STEPS TO GETTING THE RE-ROOFING PROCESS STARTED

STEP 1  Find a local Carlisle Manufacturer’s Representative.
STEP 2  Ask your Carlisle Manufacturer’s Representative to conduct a roof evaluation.
STEP 3  Receive a list of Carlisle Authorized Applicators who are qualified to make repairs or complete a re-roof.
STEP 4  Review considerations and Roof Condition Report with your local Carlisle Manufacturer’s Representative.

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✓ Return tenants to healthy, safe building environments
✓ Make your building stand out in the commercial real estate marketplace
✓ Provide tailored options based on owner objectives

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How?

✓ Integrate design, equipment, and validation strategies that support human health and wellbeing
✓ Provide collaborative interdisciplinary resources to support quantifiable project outcomes
✓ Support clients with equipment and financial strategies for solution deployment

Equipment Solutions

✓ UV-C / UVGI Ultraviolet Germicidal Irradiation
✓ Far UV- 222 nm
✓ Needlepoint Bipolar Ionization (NPBI)
✓ Local HEPA filtration
✓ CO₂ and VOC indoor air scrubbers
✓ Self-contained air purification equipment
✓ Fog sterilization
✓ Sensors

Services

✓ Project design support
✓ Equipment manufacturers’ representatives
✓ Equipment installation support
✓ Start up and testing

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Our commercial buildings are epicenters of business and entrepreneurial creation. People bring buildings to life. Magnificent buildings have the power to profoundly influence us. When we gather in the built environment, we act on ideas, we cultivate civility, leadership, empathy and friendships—the list goes on. Within the built environment, we often feel a part of history and the future simultaneously.

On January 30, 2020, the World Health Organization (WHO) declared the COVID-19 outbreak a global health emergency. Like a tidal wave, the wreckage was severe, resulting in astounding loss of life plus social and financial damage. More than a year later, we are still swamped in rough seas. Many were sunk, some are still taking on water, others are staying afloat for now. At the time of this writing, news reports on developing virus variants are chilling.

The urgency is setting in. Before we all panic, we should remind ourselves that colleagues across diverse professions are mobilizing, planning, supporting, educating and acting. By now, many from the commercial building community have a general understanding of air quality best practices according to industry guidelines. Webinars are plentiful. Also, under a new administration in the United States, the fog is clearing from federal and state policies. What should the industry keep in mind?

**Indoor Air Quality (IAQ)** – There is a myriad of healthy-building and best practices solutions on the table. It’s easier to digest the information in small bites rather than be forced to gulp it all down at once. Although, I am the first to admit the quantity of available information can be overwhelming.

From the perspectives of the building owners and management stakeholders, what are our priorities?

- Return tenants to healthy, safe building environments?
- Retain existing leaseholders?
Attract future occupants to innovative, healthy-optimized buildings?

At what cost? Keep in mind, as an owner or building manager, you need quantifiable options plus strategies that are customized to your specific building environment, budget and objectives. One size does not fit all.

EVALUATION AND APPLICATION ENGINEERING IS REQUIRED

Below is a high-level overview of the design-build approach to indoor air quality (IAQ) with popular equipment strategies.

Each building is unique. Air purification strategies should be applied and designed by accredited professionals familiar with industry guidelines and best practices. This may require an ecosystem of interdisciplinary collaboration amongst specialties including engineering, environmental testing, industrial hygiene (CIH) HVAC, among others. However, since there are few firms with all these resources under one roof, collaboration is key to efficiently implementing changes at the level required by a specific commercial property. Also, consider third-party testing to validate pre- and post-outcomes. Reputable contractors understand and embrace this vital progression of work.

For example: Due to active building environments and dynamic HVAC operations that are ongoing during testing, pre- and post-environmental testing may be subject to errors. To ensure accurate results, the mechanical engineer should determine HVAC control adjustment requirements prior to testing. Also prior to testing, the sampling team should check each building floor for “air purification” equipment brought in by its occupants; many of these devices produce harmful ozone and may alter outcome results.

At the time of this writing, our firm, System Inc., is involved in both equipment testing and case studies of high-rise buildings in Seattle. We are evaluating filtration and dilution, UV-C and GPS (ozone free) needlepoint bipolar ionization. This work is being performed in collaboration with Engineering Economics Inc. (EEI), a national consulting mechanical engineering group, and Intertek, a multidisciplinary environmental testing and quality assurance provider. In most states, other entities are doing similar assessments. These efforts will further inform our industry and direct future outcomes.

Equipment Strategies – Organizations such as ASHRAE, AIHA and others have issued general guidelines discussing overall best practices. In-depth information may be found at www.ashrae.org and www.aiha.org. Top priorities: Central air dilution and air filtration plus social distancing and hygiene measures.

Supplementary equipment strategies should be formulated to address building HVAC design constraints, priority areas and energy consumption. A summary of supplementary devices are listed below.

Germicidal UV-C Devices – UV-C refers to the ultraviolet wavelengths between 200 to 280 nanometers (nm). The effectiveness of UV-C devices are well-studied and accepted for both air and surface sterilization. Intensity and dwell time are primary efficacy factors. Lamps must be sized based on microbial control objectives. Common design considerations with GUV devices include:

- Potential reactivity with plastics, PVC and other exposed materials.
- Safety measures required due to potential for skin and eye burns.
- Devices containing UV-V lamps may emit ozone. These should be avoided in occupied space.
GUV radiation is only effective when in direct contact with surfaces or microbes.

Devices using additional photocatalytic oxidation (PCO) or titanium dioxide ($\text{TiO}_2$) elements for odor control should be avoided due to potential hazardous byproducts.

Far-UVC – Refers to the ultraviolet wavelengths between 207 to 222 nanometers (nm). Far-UVC is an emerging technology now entering the market. Microbe deactivation rates have been shown to be relatively high with greatly reduced potential for adverse exposure to skin and eyes. However, microbe deactivation rates require more time than traditional mercury vapor UV-C lamps in the 254 (nm) range.

Self-Contained Air Purification Equipment – Self-contained air purification equipment is safe, flexible, cost-effective and highly efficient. Combination air purification equipment maximizes pathogen capture and is useful where dilution (fresh air) ventilation levels are not achievable. Units include a self-contained fan, HEPA filtration and/or activated carbon with options for internal UV-C germicidal light lamps. These units are available in portable and permanent configurations. Permanent equipment types can be installed at ceiling level to handle individual rooms or common areas. Overhead placement should be considered for optimal efficacy.

$\text{CO}_2$ and VOC Indoor Air Scrubbers – enVerid is an innovative manufacturer of air purification equipment. It has developed technology using regenerative sorbent cartridges that scrub carbon dioxide ($\text{CO}_2$) plus a wide range of volatile organic compounds (VOCs), aldehydes, ozone, acids and PM2.5 particulate matter from building air. When used in accordance with ASHRAE standard 62.1, HLR equipment allows for significant reduction in the need for outside air (dilution) while maintaining indoor air quality. HLR technology may be retrofitted into both existing and new HVAC infrastructure.

Needlepoint Bipolar Ionization (NPBI) – Ionizers should meet UL 2998 guidelines, which validates zero ozone emissions. NPBI should not be confused with corona discharge ionization, which produces ozone hazardous to humans. In conjunction with UL 2998 approved ionization, it is recommended that prescribed dilution and filtration guidelines be employed to minimize any question of ozone, ROS or other potential byproducts. Because use of ionizers is an evolving issue with, at times, contradictory findings, employing a qualified IAQ engineer is a must.

Conclusion – In every case of supplementary equipment utilization, the objective is to do no harm. The importance of design review and validation, in accordance with industry guidelines and best practices, cannot be understated. Misapplication of any piece of equipment, regardless of type, may render the promised or potential benefits ineffective or, at worst, adversely impact human health.

A multitude of indoor air quality equipment choices and solutions exist. Professional engineering and collaboration across specialized disciplines will maximize the potential for successful outcomes. The strategies developed and employed should provide options that meet the building owner’s defined project goals and—in an objective, efficient and practical manner—be in accordance with industry standards and guidelines.

ABOUT THE AUTHOR: For more than 20 years, Ryan Brown, president of Systems Inc., has been managing complex HVAC refurbishment projects in the commercial, high-rise and manufacturing marketplaces. Established in 1963, System Inc. is a national manufacturers’ representative and a designer/installer of air purification equipment.
Is It Safe to Return to the Office?

Office buildings are reopening, and every day more people are returning to work. But will occupants and tenants have confidence that their indoor office spaces are safe and healthy?

It is paramount that facility owners and operators take proactive measures to ensure the safety of their employees and customers. After all, customers and employees will reward the businesses that go above and beyond to keep people safe.

One of the best ways to improve the health and safety of an entire facility is to increase Indoor Air Quality (IAQ).

The CDC has recommended several ways that building owners and operators can improve their Indoor Air Quality (IAQ).

- Increase fresh outdoor air by opening windows and doors.
- Decrease occupancy in areas where outdoor ventilation cannot be increased.
- Ensure ventilation systems operate properly.
- Increase airflow to occupied spaces when possible.
- Open outdoor air dampers to reduce or eliminate HVAC air recirculation.
- Increase air filtration to as high as possible without significantly reducing design airflow.
- Check filters to ensure they are within their service life and appropriately installed.
- Consider portable high-efficiency particulate air (HEPA) fan/ filtration systems to help enhance air cleaning.
- Consider using ultraviolet germicidal irradiation (UVGI) as a supplement to inactivate SARS-CoV-2, especially if options for increasing room ventilation are limited.
UV-C Disinfection

As recommended by the CDC, UV-C can be used to help inactivate viruses and disinfect the air and surfaces within buildings. UV-C disinfection lighting has been used widely as a disinfection solution since the 1930s.

Today, thanks to recent advances in technology, UV-C disinfection is available in portable units, HVAC units, upper room units and at various strengths to treat spaces of different sizes. UV-C lighting not only deactivates pathogens in the air, but also on surfaces.

One of the newest portable solutions that FSG offers is a 4-in-1 unit that combines UV-C air disinfection (internal), UV-C air and surface (external), HEPA filtration and needlepoint bipolar ionization (NPBI) air disinfection.

These 4-in-1 units present the most comprehensive facility disinfection option available for facility owners and operators who understand that doing nothing is not a smart business decision.
Another great solution for improving facility air quality is needlepoint bipolar ionization (NPBI). NPBI uses an electronic charge to create a plasma field of both positive and negative ions that travels within the air stream, attaches to pathogens, particles and gas molecules, breaks them down and renders them ineffective.

These units are installed in the HVAC system and work continuously to clean indoor air. NPBI units can be operated while spaces are occupied and, unlike older technologies, do not produce harmful ozone. NPBI units are excellent year round for cleaning facility air and reducing illnesses that commonly spread at the workplace.

If you are a facility manager or owner interested in learning about the latest NPBI and UV technology available to safeguard your facilities, FSG is here to help. Visit www.fsg.com to learn more.
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DOWNLOAD THE WHITEPAPER
Touchless and Smart Technologies Are No Longer Optional

Consider your favorite department store or coffee chain. The glowing emblem commands your attention as you’re on your way to something… something that’s clearly not that important. Before you know it, your car is parked and you’re striding through the automatic double doors to pick up those high-efficiency light bulbs you needed a week ago and fulfill your deja brew penchant—mocha, extra foam, extra ah-mazing.

And wouldn’t you know, it’s perfect timing. You could use a bathroom break. You bypass the café and treasure-trove aisles, heading straight for the stick figure sign. You enter—one stall down, paper wads overflowing the trash can and water pooling across the sink. The illuminated store is losing its luster quickly.

Reputations can take a nosedive with a single negative restroom experience. Even though so much is out of your control (that is unless you’re connected), customers view a chaotic, unkempt, unsanitary restroom as a reflection of the business. Just recently, the concern was customers may think you don’t care about their full journey.

Today, it’s non-negotiable. Customers equate cleanliness to public safety. It’s no longer a viewpoint; it’s a turning point. What would the survey yield right now? According to a Deloitte survey, cleanliness mattered more than social distancing or computer screening upon entry into a business. Basically, it’s judging a brick-and-mortar by its cover.

So, the customers have spoken. And their voice is louder than ever. But what should be done? How does your staff keep up with unforeseen plumbing issues, vandalism and messy situations while juggling all their other tasks? After all, even the most diligent cleaning and maintenance professionals cannot guess or keep up with real-time occurrences from performance issues or customer interactions. Find out more by downloading Zurn’s whitepaper at https://marcom.zurn.com/smart-restroom-innovations-whitepaper.
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Before COVID-19, the world was already overloaded with stress from work, family, political concerns, and environmental and economic challenges. These forces were also increasing awareness of the impact of stress on physical, social, mental and emotional health.

With nearly everyone on the planet now experiencing a full-blown pandemic, we are even more attuned to the importance of health and wellness in our lives.

Demand for building features that enhance human comfort, encourage positive behaviors and hygiene, and support a “mind, body, spirit” approach is rising in all building types—many that had rarely considered these qualities previously including office developments, classroom buildings and municipal facilities.
Sustainable features, now considered desirable by most user groups from students to office building tenants, foster the well-being of users by reducing pollution and facilitating environmental stewardship. Amenities such as gyms, showers for those who bike or walk, interconnecting staircases that encourage movement and in-house healthy dining options can all contribute to the physical health of building occupants.

Providing for occupants’ wellness involves more subtle understandings of how people inhabit and use space. Today, with COVID-19 disrupting much of daily life, revisiting and reinforcing the ingredients of design for well-being becomes both needed and timely.

**ONE SPACE NEVER FITS ALL**

Even before home isolation became a near-universal experience, the idea of facilitating a sense of personal space for building users was an essential aspect of design for well-being. Views of nature, natural light, flexible furnishings and the presence of greenspace allow individuals to feel more personally tied to the spaces they occupy.

More importantly, accessible and occupiable terraces, plazas and roof gardens allow users to break away from daily routine and connect to the natural world. These spaces also enhance well-being by allowing users to choose where to work. Getting up from one’s daily workspace and resettling in a different environment, whether to work in a team, alone in a lounge area, outdoors under a shade canopy or in spaces that socially connect them with others, is freeing. The process can also reset one’s perspective, enhance self-awareness and encourage creativity.

Today’s government-mandated work-from-home and corresponding virtual conferencing protocols are giving us a glimpse into how we each shape our own work environment. No two spaces are identical. Whether our COVID-19 workspace was on the couch, at the kitchen table amidst the action of home life or behind a desk with a view, we will each emerge with greater consciousness of the need to tailor one’s environment to tackle the task at hand.
QUALITIES OF SPACE FOR WELLNESS

As designers, we recognize that many characteristics of buildings and spaces can enhance comfort, encourage mental and physical well-being and foster supportive communities. Humans are attracted to the familiar characteristics of natural materials like stone and wood. They project warmth and comfort and provide a calming sense of connection to nature.

More and more, the material quality of buildings and spaces goes beyond natural references to reflect the specific site or locality. Materials that reference a building’s immediate surroundings and community add meaning and provide users deeper connections to the world. This sense of belonging is a vital facet of emotional wellness.

Natural light has been proven to improve the experience of users when glare, reflection and heat gain are controlled. Equally, the absence of natural light wears on a person’s mental and physical well-being. Strategies for controlling light can span from simple sunshades to high-tech electrochromic glass.

Greenspaces again have a role in supporting human wellness. Educational and corporate campuses, and even urban office towers, are giving back street-level space to their users and to their

Photo: Multiple workspace options at RTI International Headquarters; Credit: Robert Benson Photography
neighborhoods. The tops of skyscrapers, once essential to the iconography of high-rise buildings, are now prime locations for sky gardens and amenity terraces that provide both a change of setting and access to fresh air.

THE FUTURE OF WELLNESS DESIGN
We cannot predict the COVID-19 pandemic’s ultimate influence on our lives and the architecture we create, but we can speculate on how current trends in design for wellness might be reinforced and adapted as people emerge with more sensitivity to ensuring individual and collective wellbeing.

All building types have been adding spaces to facilitate collaboration and cross-disciplinary thinking—practices that will continue to be in demand as we collectively seek to solve problems and generate innovation.

The design challenge is to reconfigure these spaces to ensure, when necessary, distancing practices can be implemented. Moveable partitions, seating and workstations will accommodate spatial adaptation. Increased outdoor meeting space will allow for congregation and, as needed, distancing while meeting.

Photo: Interconnecting stair at Dimensional Fund Advisors East Coast Headquarters; Credit: Robert Benson Photography

Photo: Duke University Student Wellness Center casual meeting space; Credit: Robert Benson Photography
Multipurpose rooms, prevalent in many buildings, will gain added significance if their design includes adaptability to allow sheltering-in-place. Robust technological infrastructure will ensure these spaces the capacity for digital and virtual communications. We must also provide the ability for people to safely find a place for contemplation or privacy, such as the current trend for open-plan workplaces to add spaces reminiscent of phone booths.

Health centers, whether for students or communities, will likely require new and additional spaces for isolation. Seamless wayfinding—always important for these buildings—carries special importance in filtering users through buildings and ensuring they arrive to their intended destination.

Spaces that facilitate healthy choices may also contribute to every individual’s capacity to care for themselves, including community teaching kitchens and oasis and meditation spaces. Waiting rooms may get larger, with more zones of separation, so those seeking routine care can have separation from those who are sick. These functional additions can accelerate our focus on wellness and encourage attention to self-care.

We include interiors staff in our architectural design teams. These professionals infuse our work with perspective on the latest materials, color options and even more detail on the health impacts of materials and finishes. This integrated approach brings the best combination of talent to holistically addressing design for wellness.

RECONNECTING
Every individual has multiple communities, and the pandemic has likely made our connection to others more significant than ever before. Many of us are anxious to get back to those communities, whether at home or work, and to the idea of being part of something bigger than ourselves. Team working, learning,
collaborating and building community will still be important to the workplace and education. Many of the strategies we’ve learned in this pandemic—staying six feet apart, good hand hygiene, not exposing others when you’re sick and so on—will make their way into our design thinking. Building code and zoning ordinances will inevitably evolve to ensure greater safety against the spread of future viral outbreaks.

As we strive to create a more diverse and inclusive world, the need to respect and accommodate the many different backgrounds people bring to our collective experience will rely on us reinforcing our commonalities. Designers and their allies must be at the forefront of advancing awareness of healthy environments that allow us to be together again. Then, we can share in solving tomorrow's health challenges and advancing wellness for everyone. Once there is awareness, the movement to implement change through design is unstoppable.

Resources

Resources:
- BOMA International's Coronavirus Resource Center
- Improving Occupant Safety Inside Buildings
- BOMA International COVID-19 Commercial Real Estate Impact Study
- BOMA Deep Dive No. 1: Charting a Path to the Future of the Office
- BOMA Deep Dive No. 2: Tenant Culture and the Psychology of the Return

Webinars:
- BOMA International’s Making the Most of a Changing Work Landscape  
  (May 11, 2021)
- BOMA International’s The New Tenant Amenity: Health & Wellness  
  (April 27, 2021)
- BOMA International’s Inflection Point: Actionable Insights from BOMA’s COVID-19 Impact Study  
  (December 8, 2020)
- BOMA International’s Budgeting for a New Normal: What Should You Be Prioritizing?  
  (August 25, 2020)
- BOMA International’s Getting Back to Work: Preparing Buildings for Re-Entry Amid COVID-19  
  (May 6, 2020)
- BUILDINGS’ COVID-19 and the Built Environment  
  (April 8, 2020)