Pragmatic Workplace Strategies in the Age of Covid-19

The world will, at varying points this spring and summer, reopen its interconnected economies and workplaces. These discussions regarding reopening workplaces in the US and around the globe are happening with increased fervor. A new era of the workplace will bring dramatic changes to the office. What had been heralded as the “new flexible office”— the open concept, collaborative work environment, that took the better part of the last decade to brand, seems obsolete and out of place in the age of Covid.

Office collaboration became a communal, almost utopian work philosophy; now this seems to have shifted to a more Orwellian dim view of crowded elevators, packed subways and public transportation that pose perils that most employees will no longer expose themselves to as they contemplate their return to work.

Instead, employers are taking a more clinical approach to mitigate risk, ensuring that their facilities will not become the next Covid-19 outbreak epicenter. Employers need to be offering guidance to employees and the communities they impact, with protocols for the new “hygienic” office environment that incorporates a comprehensive operating system where cleaning, air quality, mitigation of risk, health monitoring, visual communications and personal safety are the new norm.

This document attempts to offer some pragmatic insights and strategies to bolster the work that numerous professionals are planning to make in this new era. In collaboration with numerous commercial real estates, facilities, technology and health professionals, these recommendations are just a few of what will impact the workplace in the days and weeks to come.

Health & Continuity Plan—Promoting Safety, Health and Wellness:

Businesses will be encountering a skittish workforce that will expect elevated assurances that their workplace is a healthy & safe environment. Clear visual displays from the CDC and other government agencies posting new
regulations, standards for safety, health and wellness information will be the minimum resources that employees and visitors expect.

All work environments—whether owned, leased offices, flex, labs, retail and manufacturing facilities, will need a well delineated Health & Continuity Plan with key elements that include:

- **Federal, State and Local government standards and qualifications needed to operate the space.**
- **Protocols for collecting data on employee travel plans once travel becomes more routine.**
- **Standards for employee identification of personal health matters**
- **Providing new levels of Health Screening**
- **Work Schedules and Social Distancing Requirements**
- **Cleaning & Disinfecting Protocols**
- **Health & Wellness Essentials**
- **Visitor and Access Measures**
- **Air Quality Impacts and Enhancements**
- **Personal Protective Equipment (PPE) and Supplies**

**When & How will the Workplace Re-Opening Process Start?**

**Rolling Reopening**

Several lessons from workplaces in Asian markets, indicates that bringing employees back “full tilt” is an avoidable risk that is contrary to public health guidance. Thoughtful and gradual reopening of facilities that bring back employees in a staggered manner, will enhance social distancing measures. Employers will need to establish a plan that enables gradually increasing numbers of people that return to the workplace and providing protocols for alternate workday schedules that will ensure buildings are not over occupied.

Numerous innovative office concepts like [Breather](https://www.breather.com) are well positioned to offer clients "self contained" fully-serviced offices which allows companies to secure their own space without the risk of contamination from other groups. Open floor plan concepts that have become a staple of many flex office operators will be more challenged to reopen with same level of health assurances.
Colette Temmink, the President of Eden Technologies and the former global head of IFM at Cushman & Wakefield shared that “the future will require flexibility in facility services and in turn companies who deliver those services. As companies re-occupy space in phases, this flexibility will include quick changes in scope and delivery.”

Remote Work & Staggered hours

For nearly the past 4 months, a large percentage of the global workforce has been working remotely. Several surveys have shown that most employees would prefer to work from the office due to the number of distractions they are exposed to at home, children being homeschooled for one. Employees and their employers will need to implement thoughtful new options that allow for flexibility to work from both. Implementing conservative policies that improve morale and assure a safe, clean workplace, e.g., staggered lunch breaks and alternate workdays are just a few of the ideas being considered by employers to ensure social distancing.

Enhanced Protocols & Financial Impacts

Buildings’ stakeholders, both occupiers and landlord need to give serious thought to heightened levels of service, PPE and the vital supplies and materials that must be part of the workplaces new Standard Operating Procedures. Additional budget impacts to accommodate for these increased levels of service will include enhanced cleaning; new access protocols (e.g., temperature screening); enhanced indoor air quality and purification tactics; increased PPE quantities of supplies (hand sanitizers, wipes, gloves, masks); reconfiguration of work environments and associated technology and equipment; utilization tracking technologies; touchless technologies; and video camera analytics are all key elements of this plan.

Rethinking Broken Supply Chains

Supply chains global have been broken if not shattered in the last fiscal quarter and there has been a seismic change of sentiment around manufacturing more in the US rather than having a near singular reliance on China and other Asian markets. The American Chamber of Commerce in Shanghai stated in a survey published by the National Review, which “signaled a shifting business attitude around China. While “66% of 70 U.S.
companies had said in October that breaking from China was not possible, the number had shrunk to 44% in March.”

Peter Doran, the former President of Newmark Knight Frank’s Global Occupier Services platform recently shared that “supply chain strategy thinking has taken a right turn, large scale change is not off the table – decoupling from China in fact is a key issue that has to be played out” for all global occupiers of real estate.

Moreover, it is reported that Japan, and other countries are considering diversifying their own supply chains and in many other countries where using a ‘single source’ supplier is one point of failure to many. Occupiers and global corporations in the future will be taking a more balanced approach to their supply readiness, reserves and inventories on hand.

Large industrial scale distribution platforms like Daycon Products, that is the supply chain backbone of the janitorial industry in markets from Washington DC, Philadelphia and New York, has tripled their production capacity of key disinfectants and other critical supplies as the demand outstrips supplies. Howard Cohen, the CEO has helped source millions of units of PPE for its vital health care customers, landlords and global corporations and even key government agencies.

What are new Operation Protocols that may be implemented?

Critical Cleaning & Disinfecting

Cleaning and maintenance professionals are becoming the new face of frontline workers in the workplace. Historically, maintenance personnel have only played such a critical role in the mitigation and the sanitization of pathogens, bacteria and viruses in healthcare facilities. Now building owners and occupiers will need to recognize the vital protocols that must be implemented to clean and disinfect the workplace.

Workplaces will now need to implement far more stringent and clinical cleaning strategies that include methods specifically designed to kill 99.99% of the Corona virus through an “Electrostatic” spraying application and EPA registered disinfectants that carry a “kill claim.” This process is highly
specialized and was originally developed for GMP environments—healthcare, food processing and biotech clean rooms. The technicians and the technology used to execute this process are highly technical and require extensive training, PPE protocols and mobility. Commonly, a building's janitorial company does not have the technical capability and training to provide such a service. In the limited cases where they do, the building owner and tenant should verify their training and PPE procedures.

In order to establish a new level of confidence that employees and visitors will require to return to the office, these new cleaning and disinfecting measures will need to be implemented on a recurring, periodic basis. Existing cleaning specifications must increase the level and frequency of disinfecting with particular attention paid to “touch points” and traffic areas, such as elevators, doors, handles, kitchen and conference areas. Restrooms that are typically serviced 1-2 times during the day, will require stepped up attention, requiring occupants to increase staffing to ensure that touch points in these uniquely contaminated spaces are disinfected.

Additional protection can be delivered by new “antimicrobial” shields and surface micro-coatings which can be sprayed as an enhanced barrier to prolong the efficacy of the Electrostatic disinfecting between applications. Some technologies have claims that antimicrobial shields will enhance the surface defenses from 7 up to 30 days. These spray applied finishes are done with the same Electrostatic sprayers and foggers that are referenced above for the disinfecting. Environmental industry leaders like SGrace Facilities, who
has the largest fleet of disinfecting technology in the US, is applying its Gold Shield technology to high touch points, desks, restrooms, conference rooms and surfaces that are at high risk of contamination.

In the United Kingdom and other parts of Europe, facility experts at Atalian/Servest have seen a shift in how their workplace employees are being viewed as a more visible workforce by their clients. Facility professionals, who were previously seen as an invisible workforce, these same occupiers and building users will want to see the physical nature of the cleaning operation in action, to give them the confidence that their wellbeing and safety is on the front of their employer's mind.

Training & Field Testing for Pathogens

Occupiers and landlords are advised to work with remediation professionals that possess industry certifications for the proper disinfecting and remediation of bio-pathogens. The World Health Organization has provided training and certification resources for contractors and the Global Bio-Risk Advisory Council has created a certification called Certified Bio-Forensic Restoration Specialist training that demonstrates the capacity and technical competency to disinfect facilities by service providers.

In field testing for the virus on surfaces and physical assets will be as critical as testing individuals. Several advanced field testing devices such as Hygiena’s System SURE Plus are designed for convenient in-field swab testing and remote analysis. Adenosine Triphosphate, or ATP, is the energy molecule found in all living things, making it a perfect indicator when trying to determine if a surface is clean or not. Companies use ATP systems to rapidly verify surfaces have been cleaned thoroughly in food manufacturing and healthcare applications, and to ensure that biofilms are not developing on the surface that could affect quality. These types of tests can be used to take random sampling in facilities that will allow the service professionals and the occupant to better mitigate the virus spread in those areas that are impacted the most.

Employees will Require PPE in the Workplace

Now that the CDC has approved the use of facial masks to protect the public from impacts of individual “aerosol “effects, which can spread the virus
through even limited breathing, PPE will be required by companies to provide to its employees. Occupiers would also be advised to maintain adequate sources and supply of new PPE materials, such as surgical masks or respirators, gloves, sanitizer, disinfectant wipes, infrared thermometers, and other supplies that will promote a clean, safe and healthy workplace. Many large employers are anticipating providing daily and weekly employee “health” kits that include a personal allotment of these supplies.

Cleaning Professionals will need to wear similar PPE to Healthcare workers

Further preparedness planning protocols should also specify that each facility maintain at least a 30-day supply of disinfectants, masks and other personal protective equipment for employees and contractors responsible for cleaning. Surgical masks only are recommended for purchase for occupiers and their employees, it is not recommended to purchase “N95” masks for office buildings unless they are being used to remediate an area where a positive case of Covid-19 may have been exposed. N95 masks should only be purchased for medical and healthcare related workers and those with frontline exposure to the virus.

An innovative supply concept was recently introduced by Cushman & Wakefield’s global occupier team in Amsterdam. Artfully labeled in their virtual case study called the “6Ft Office”—this strategy would provide employees with disposable work-placemats to place down on the individual workstations to ensure the surface has limited contact with the user. Placemats can have printed on them helpful hygiene best practices to reinforce the safety and health priorities of the employers.

Contact Tracing & Health Verifications

The Wall Street Journal reported that in the wake of China’s outbreak and subsequent return to work, “technology titans like TenCent are deploying
health-rating systems apps” for its employees. These types of technologies would allow employers in the US to screen individuals working in their facilities and to ensure that they have a digital record of their health condition and in the future, confirmation of vaccines taken or other relevant training information for specific certifications. The US technology company Automated Decision has created such an app called MyWorkBadge for contractors and for occupants, that allows for each individual employee to have a digital work badge with a series of protocols and verifications so when entering a building the trusted health badge can be presented to security to be show proper compliance.

In future versions, MyWorkBadge will be able to contact trace and geolocate with precision once an employee comes in close contact with another infected person.

For workplace applications, these types of advances will allow large employers to track vital data for its employees as they reenter the office.
Companies will also be able to require its vendors coming into the space to use the app and validate that they also meet standards. In Europe and elsewhere GDPR and civil liberties need to be taken into account as these new tracking strategies are implemented.

**Infrared Cameras & Temperature checks**

Many employers are considering implementing large scale use of temperature checks with digital thermometers. Until widespread instantaneous testing can be done on-site, the ability to provide temperature checks that will flag workers who may be carrying the virus and maybe contagious is a bona fide defensive measure that occupiers and landlords would be well advised to consider.

Most facilities use perimeter security cameras and for interior spaces to track and detect threats. The use of infrared camera technology has been used for decades to detect movement at night. This same technology when coupled with enhanced analytics, can detect elevated body temperatures, which would be a faster method than using individual thermometers in large facilities.
Infrared cameras could be a more effective way to detect elevated temperatures when large volumes of employees or visitors are entering a facility. The privacy issues that surround this invasive tactic are yet to be vetted and resolved and given that many people that carry the virus are asymptomatic, neither method is a panacea to contain and mitigate exposures in the workplace. However, both are pragmatic solutions that should be considered.

Air Quality & Enhanced Ventilation

Indoor air quality, ventilation and filtration and enhanced performance of the HVAC system can play an integral risk mitigation role in fighting the spread of Covid-19 in workplaces. Air filters and supplemental air movement and purification technology are critical features of this strategy to impact any infectious disease transmission. Since transmission of the virus in the case of Covid-19, occurs through the airborne aerosols, ASHRAE recommends that filters (MERV >14 filters should only be used to remove viruses) are changed more frequently and then properly installed and maintained in appropriate systems to treat recirculated air.
Lower efficacy filters (e.g., less than MERV 13 according to ASHRAE 52.2 or less ePM1050% according to ISO 16890-1:2016) are very unlikely to make a difference. Properly installed, higher efficiency filters can remove particles of a relevant size depending on their installed capture efficiency, but current information does not allow for specific recommendations. HEPA filters are also considered the better alternative to MERV rated filters and HEPA are 99.97% efficient at filtering 0.3 μm particles in standard tests, efficiency is better than MERV 16.

To enhance the barriers that filters and increased ventilation can provide, supplemental air movement and purification applications like Ray-Air (referenced in above photo) and Atmos Air, are proven to impact indoor quality in measurable ways. Dr. Philip M. Tierno, Jr., Professor of Microbiology & Pathology New York University School of Medicine recently stated in a white paper, that systems like Atmos Air have “shown significant reduction of bacteria and viruses in both laboratory and in situ testing. Spaces like airport terminals where travelers from affected regions may carry and spread this virus could implement the Atmos Air bi-polar ionization air cleaning system as a step to combat the spread of illness.” Air movement and purification will continue to play a larger role in enhancing interior space preventative measures and occupiers may start to require this technology to be included in lease provisions when leasing new space.

Technologies like Ray-air utilize Ultraviolet or more specifically, UVC features which kill viral, bacterial, and other pathogens so they are unable to replicate. ASHRAE has concluded that the entire UV spectrum is capable of inactivating microorganisms, but UV-C energy (wavelengths of 100 – 280 nm) provides the most germicidal effect, with 265 nm being the optimum wavelength.

It should be noted that filters changes by themselves, will not be as effective as other infection control measures, including social distancing, isolation of known cases, and handwashing, therefore should be considered as part of a holistic approach, rather than the “silver bullet.”

**Workspace Design & Social Distancing**

Preparing to reopen offices and buildings will require new social distancing measures that will dramatically impact the physical space that companies have come to know. Each occupant and building owner will need to develop
a detailed plan for each location, reconfiguration of the physical environment to de-densify and support social distancing practices, and the continuous visual communications such as floor pads with reminders to “wash your hands” and “wait here” or “keep 6ft distance.” Designers and workplace strategy firms have been at work coming up with new design schemes that will herald in a new era in “separation” a measurable contrast to from the past decades focus on open space and communal design layouts. Kitchens, cafeterias, conference rooms and phone booth calls rooms that also became signatures of open office amenities will be rethought and new concepts will arise that promote healthy working environments.

communications signage

Leading organizations are putting a heightened focus on visual communications, recognizing that this must be an ongoing, deliberate, thoughtful effort that touches and engages all key stakeholders across both physical and virtual work environments. In order to promote social distancing and to provide employees with the visual cues, public health campaigns and communication messaging will be broadcast through the workplace in analog and digital mediums. Constant reminders to wash your hands and the imperative of personal hygiene will be printed on a variety of surfaces and flashes on all types of interoffice dashboards, TV monitors and log-in screens.
Communal Gathering Areas

This new era of workplace design and operations will deem some areas that promote communal spread of the virus and be deemed infection spots removed from use; water fountains, coffee stations and even refrigerators will be at risk of contamination. These are areas and surfaces that will be prone to issues and companies may be well advised to have them removed and replaced with vending machines or other concepts.

Elevator lobbies and meeting spaces like conference rooms will also require new thoughts about how best to socially distance its occupants. Collaboration will need new tools more than ever and rooms reserved for large meetings may be replaced by virtual conference rooms with more VR aspects than the two-dimensional Zoom calls we have all come accustomed to these past days and weeks.

Path Forward to Re-opening the Workplace

What can employees and workplaces expect to experience in the days and weeks ahead as our western economies reopen? China and other Asian communities might offer a candid glimpse into these new realities. A recent Bloomberg article focused on the measures that large multinational companies are taking to reopen their offices shared several examples of these
strict measures. Transportation and mass transit have deployed temperature scanning cameras, commuters have to be masked to board transit and corporate buses and seating is limited, making commuting times longer. Many companies are installing makeshift disinfecting chambers for employees to walk through for decontamination before they enter a building and once inside the offices, movement and access is being controlled with draconian protocols.

These are what many Americans can expect upon their return to work and many more new tactics to mitigate this disease and prevent future outbreaks. This new era will require collaboration, ingenuity and wholesale rethinking of industrial work design and operations. Above all else, it will require facility and real estate professionals to be on the frontlines, supporting its clients and ensuring that the workplace and its occupants are safe, healthy and well stocked for the remainder of this pandemic and future ones that we shall all be better prepared to manage.