PANDEMIC MANUAL

Planning and Responding to a Global Health Crisis for Facility Management Professionals

BROUGHT TO YOU BY:
PANDEMIC MANUAL
Planning and Responding to a Global Health Crisis
for Facility Management Professionals

Published by the IFMA Foundation

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Facility Managers (FMs) are among the first responders on the front line of a pandemic. FMs are essential to keeping business and critical infrastructure facilities operational during the COVID-19 pandemic. IFMA has continuously monitored and assessed the impacts of this crisis on facility management. As the FM industry’s global thought leader, IFMA has responded quickly and thoroughly to deliver beneficial resources and safe learning opportunities to the FM community.

This manual is meant to be a reference chronicle. It will be updated periodically after the COVID-19 pandemic passes. It will eventually include a “Lessons Learned” subsection, which will provide improvements to regular operations and practices, as well as guidance for future similar events.

While this manual is geared toward the FM profession, it should be noted that crisis preparedness and response are most effective when applied on an organization-wide basis. The information in this manual is meant to be viewed in a holistic manner that involves appropriate employees, resources, and critical functions within an organization to prepare their response and recovery.

This manual cannot be all-inclusive or cover all situations. The COVID-19 pandemic is a dynamic situation, with information and circumstances changing virtually daily. The amount of “monitor and adjust” activity taking place serves as an important part of the response. Personnel and teams must remain apprised of events, respond, and coordinate internally and externally as appropriate.

We will get through this crisis, and we will be better for it.
ACKNOWLEDGEMENTS

This document is based upon the previous version of the IFMA Foundation’s “Pandemic Preparedness Manual” published in December 2006. The editors updated the document to replace Avian Flu material with current COVID-19 knowledge. They also removed the business continuity sections and added much needed pandemic response guidance. Included herein are information, procedures, and guidance from many companies and government agencies as provided by them or found (and vetted) from Internet sources.

This manual is intended for IFMA members and other Facility Management specialists with the hope that the information herein will help FM professionals to combat the COVID-19 pandemic and to prepare for future similar events.

IFMA Foundation expresses its gratitude to ABM Industries for sponsoring this important effort. ABM staff also provided some of the material used herein.

I asked Dr. Steven B. Goldman, Senior Lecturer, Crisis Courses, Massachusetts Institute of Technology to review, revise, and upgrade our previous pandemic manual. Dr. Goldman is an internationally recognized expert and consultant in Business Continuity, Crisis Management, Disaster Recovery, Risk/Crisis Communications, Pandemic Preparation and Response, and Crisis Leadership. He has more than 30 years’ experience in the various aspects of these disciplines, including as a Fortune 500 Company’s Global Business Continuity Program Manager. His most recent industry accomplishment is the development, coordination, and conducting of “Crisis Management and Business Continuity” and “Advanced Business Resiliency” Professional Education courses at Massachusetts Institute of Technology (MIT). He has done a great job!

Nitin Purshotam is currently a graduate student in facility management at Pratt University in New York City who ably assisted in the gathering and editing of the COVID-19 Case Studies presented in Appendix 5.

Thanks to Kate Lister, President of Global Workforce Analytics, for her great work in authoring Appendix 3, Optimizing Remote Work Programs. Kate is a globally recognized thought leader in agile workplace strategies and helps employers create the business case. Her research and work have been cited in hundreds of publications including Harvard Business Review, The Wall Street Journal, The New York Times, and the Washington Post.

We appreciate David Karpook, Erik Jaspers and David Stillebroer from Planon who not only co-sponsored this publication but also authored Appendix 4, Coordinated Outbreak Management Systematics: A Technology-Driven Approach to Preparation for Future Health Emergencies. This Appendix provides valuable insights on how technology can aid in a pandemic.

This publication would not be possible without the dedication of a number of professionals. At the top of the list is the driver of this project, Nickalos Rocha, IFMA RBI Director of Research. We are grateful to Nick and the production team: Angie Allie, copy editor, Angie Ping Allie Communications and Ashley Sustrich, graphic designer, The Ashley Tree.

Many IFMA members offered information, processes, and practices for various elements of this manual. Several IFMA members provided their COVID-19 experiences and lessons learned described in Appendix 5 and elsewhere in this manual. Thank you for sharing.

Much appreciation goes to the following IFMA Foundation Trustees and advisors as well: Carlos Santamaria, for contributing content in the area of HVAC and energy management; Joe Archie, Chair, for management advisement, content editing and case study contributions; Nancy Johnson Sanquist, Past Chair, for advisement, content editing and solicitation of sponsors; Tony Piucci, First Vice Chair, for solicitation of sponsors; and Irene Thomas Johnson, Second Vice Chair, for solicitation of sponsors. I also would like to recognize Christina Gonzales, IFMA Foundation Support Specialist for creating the cover and marketing materials for this publication. Your dedication to the cause of making facility management a career of choice is exemplary.

Finally, I must thank all the Facility Management professionals worldwide who work hard (and often under-appreciated) to keep buildings, businesses, and organizations operating through all types of events – planned and unplanned. You are truly Rock Stars!

Diane Levine
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The IFMA Foundation would also like to thank the following sponsors for their support of this publication:

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A MESSAGE FROM THE IFMA FOUNDATION

The IFMA Foundation is proud to publish this updated Pandemic manual. Celebrating our 30th year, the IFMA Foundation’s primary goal has always been FM education. Defining and meeting this goal has happened through many vehicles: scholarships to assist current and future FMs, publications like “Work on the Move,” and now a revised Pandemic manual. This manual will assist facility managers in navigating, impacting, selecting options, responding and ultimately recovery from the Pandemic.

Facility Managers have an essential role in the built environment by constantly supporting critical facilities and facility operations that are at the center of managing our society. Contingency planning, managing events and responding to emergencies is an essential role of the FM. In a pandemic like we are experiencing today, the reliance on our professional FMs is even more critical. The experience of professional facility managers must be shared with future generations to ensure the intellectual knowledge from “years of service” is not lost, but rather becomes a shared benefit.

The IFMA Foundation is supported by generous donations from IFMA members, global FM suppliers, local and national facility suppliers, colleges and universities. Each of these groups leaves a lasting impression on the industry, and helps build and support a better world.

I would also like to thank and acknowledge, Diane Levine – Executive Director of the IFMA Foundation and the entire Board of Trustees for the IFMA Foundation.

Together we are stronger.

Joe Archie
Chair – IFMA Foundation
When a pandemic arises, the world changes quickly. In 2020, all eyes, ears, minds, and hearts have been focused on COVID-19. Facility managers face heightened demand for demonstrating to their occupants that they are providing a clean, healthy, sustainable, and safe building. Unprecedented times require agility plus the ability to call in extra resources: experts, trained frontline teams, supplies, and equipment.

Information and updates on the crisis are overwhelming, and it is an ongoing job to sort the critical from the noise. Yet, facility managers have to act quickly to understand, adjust, and deploy enhanced cleaning and safety protocols in contaminated spaces and to prevent outbreaks in buildings. We also have to face challenges such as:

▶ Protecting our employees
▶ Maintaining occupied and unoccupied buildings
▶ Occupants reluctant to return to the building
▶ Economic impact on businesses – clients’ and our own
▶ Communicating internally and externally

Everything we say and do as facility managers reflects on our trustworthiness, and not just with our clients. All of the Facility Management challenges and the choices each of us makes to address them, are viewed by our communities through the lens of trust. The 2020 Edelman Trust Barometer showed that consumers’ trust in U.S. institutions is woefully low, even prior to COVID-19. Now more than ever, it’s vital to demonstrate that we’re providing places and spaces where people can feel safe after the virus has been cleared, and for years to come. People remember how companies respond in times of crisis. The time to build trust is now, because this is not the first crisis, nor will it be the last. The strategies and partnerships each of us forms now impact our ability to conquer today’s challenges and prepare for those of the future.

Scott Salmirs
President and CEO
ABM
ABOUT THE AUTHOR

Dr. Steven B. Goldman is an internationally recognized expert and consultant in Business Continuity (BC), Crisis Management, Disaster Recovery (DR), Risk/Crisis Communications, Pandemic Preparation and Response, and Crisis Leadership. He has over 30 years’ experience in the various aspects of these disciplines, including program management, plan development, training, exercises, and response strategies. His background is comprehensive yet unique in that he has been a professional engineer, corporate spokesperson, manager of media relations, business continuity planner, crisis responder, consultant, and a Fortune 500 Company’s Global Business Continuity Program Manager.

Dr. Steve has published many articles and conducts several seminars annually on the various aspects of Crisis Management, BC, and DR. His most recent industry accomplishment is the development, coordination, and conduct of Crisis Management & Business Continuity and Advanced Business Resiliency Professional Education courses offered by Massachusetts Institute of Technology (MIT). Dr. Goldman instructs Leadership and also Scenario Development Workshops for the Industry Conferences. He lectures on crisis communications and conducts the class exercise for the Harvard School of Public Health’s “Radiological Emergency Planning: Terrorism, Security, and Communication.” Steve lectures on Risk Communication for the Harvard School of Public Health’s “Management Skills for Emerging Leaders in Environmental Health and Safety.” Steve developed and co-conducted the first set of “Crisis Management Planning” Professional Development Courses for the Risk & Insurance Management Society (RIMS).

Dr. Goldman earned his Doctorate in Education (Ed.D.) from the University of Massachusetts. His doctoral dissertation undertook research on leadership and the status of crisis planning in several Massachusetts school systems. He obtained his Master’s Degree in Engineering from the Massachusetts Institute of Technology. Currently he provides expert hands-on consulting services to corporations, non-profits, and government agencies worldwide.

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INTRODUCTION

This Pandemic manual has been prepared for the IFMA Foundation. The manual is designed to provide FM professionals with a reference document to assist in planning for, mitigating, and responding to pandemic threats.

Use of this Manual

FM professionals are encouraged to review this manual and identify those topics that apply to their respective organizations. As a generic manual, all information will not apply to all users. Some FM professionals will have unique responsibilities not addressed in this manual. Further, it is expected that some situations will require flexibility and the exercising of professional judgment, which may deviate from this document. Users should adapt this manual as needed.

While this manual is geared toward the FM professional, it should be noted that pandemic management/response is most effective when it is applied on an organization-wide basis. An organization that engages in preparedness activities only in the FM discipline will likely remain unprepared for a pandemic or any other significant crisis. We encourage all users to view the information in this manual within the context of a holistic program that involves appropriate employees, resources, and critical functions within an organization.

Having stated that, this manual does not address issues that are in the domain of other departments or management. Strategies and policies, for example, focusing on employees, health, payroll, tracking activities/hours, emergency spending, travel, social distancing, crisis management, communications, interface with federal/state/local government agencies, etc. are generally not addressed.

Disclaimer

This manual is intended to be used by the IFMA Foundation members and entities identified by the IFMA Foundation. The manual is designed to provide as accurate information as possible with regards to this subject matter. However, as a guidance document, all users retain the responsibility to apply this information appropriately and to adapt/augment the information as necessary. Neither the IFMA Foundation nor Dr. Goldman accepts responsibility for the application of information contained in this manual.

Revisions

The IFMA Foundation would greatly appreciate input, suggestions, or requests for clarifications for inclusion in subsequent editions. Every effort will be made to accommodate feedback received. Please forward comments and suggestions to Diane Levine, Executive Director, IFMA Foundation, at diane.levine@ifma.org.

The COVID-19 Pandemic

A pandemic occurs when a virus spreads from person to person around the world and affects a very large number of people. Pandemics happen when a new virus emerges to infect people and can spread between people sustainably. Because there is little to no pre-existing immunity against the new virus, it spreads worldwide. By contrast, an epidemic occurs when virus activity in an area (e.g., a city, a country, or another region) is higher than normal.

Pandemics occur every 30 to 40 years and have varying levels of severity. Viruses range in severity from mild to severe, and the same virus can vary greatly in how it affects different age groups or at-risk groups, depending on its unique characteristics.

The virus that causes COVID-19 is infecting people and spreading easily from person to person. On March 11, the COVID-19 outbreak was characterized as a pandemic by the World Health Organization (WHO).

This is the first pandemic known to be caused by a new coronavirus. In the past century, there have been four pandemics caused by the emergence of new influenza viruses. As a result, most research and guidance around pandemics is specific to influenza, but the same premises can be applied to the current COVID-19 pandemic. Pandemics of respiratory disease follow a certain progression outlined in a “Pandemic Intervals Framework.” Pandemics begin with an investigation phase, followed by recognition, initiation, and acceleration phases. The peak of illnesses occurs at
the end of the acceleration phase, which is followed by a deceleration phase, during which there is a decrease in illnesses. Different countries can be in different phases of the pandemic at any point in time. Different parts of the same country can also be in different phases of a pandemic.

COVID-19 Basics

What is a novel coronavirus?

A novel coronavirus is a new coronavirus that has not been previously identified. The virus causing coronavirus disease 2019 (COVID-19), is not the same as the coronaviruses that commonly circulate among humans and cause mild illness, like the common cold.

A diagnosis with coronavirus 229E, NL63, OC43, or HKU1 is not the same as a COVID-19 diagnosis. Patients with COVID-19 will be evaluated and cared for differently than patients with common coronavirus diagnosis.

Why is the disease being called coronavirus disease 2019, COVID-19?

On Feb. 11, 2020 the World Health Organization announced an official name for the disease that is causing the 2019 novel coronavirus outbreak, first identified in Wuhan, China. The new name of this disease is coronavirus disease 2019, abbreviated as COVID-19. In COVID-19, ‘CO’ stands for ‘corona,’ ‘VI’ for ‘virus,’ and ‘D’ for disease. Formerly, this disease was referred to as “2019 novel coronavirus” or “2019-nCoV.”

There are many types of human coronaviruses including some that commonly cause mild upper-respiratory tract illnesses. COVID-19 is a new disease caused by a novel (or new) coronavirus that has not previously been seen in humans. The name of this disease was selected following the World Health Organization (WHO) best practice for naming of new human infectious diseases.

COVID-19 is a new disease caused by a novel (or new) coronavirus that has not previously been seen in humans.
How COVID-19 Spreads

What is the source of the virus?

COVID-19 is caused by a coronavirus called SARS-CoV-2. Coronaviruses are a large family of viruses that are common in people and many different species of animals, including camels, cattle, cats, and bats. Rarely, animal coronaviruses can infect people and then spread between people. This occurred with MERS-CoV and SARS-CoV, and now with the virus that causes COVID-19. More information about the source and spread of COVID-19 is available on the Situation Summary: Source and Spread of the Virus.

How does the virus spread?

The virus that causes COVID-19 is thought to spread mainly from person to person, primarily through respiratory droplets produced when an infected person coughs or sneezes. These droplets can land in the mouths or noses of people who are nearby or possibly be inhaled into the lungs. Spread is more likely when people are in close contact with one another (within about 6 feet).

COVID-19 seems to be spreading easily and sustainably in the community (“community spread”) in many affected geographic areas. Community spread means people have been infected with the virus in an area, including some who are not sure how or where they became infected.

Learn what is known about the spread of newly emerged coronaviruses.

Can someone who has had COVID-19 spread the illness to others?

The virus that causes COVID-19 is spreading from person to person. People are thought to be most contagious when they are symptomatic (the sickest). That is why experts recommend that these patients be isolated either in the hospital or at home (depending on how sick they are) until they are better and no longer pose a risk of infecting others. More recently the virus has also been detected in asymptomatic persons.

How long someone is actively sick can vary so the decision on when to release someone from isolation is made using a test-based or non-test-based strategy (i.e. time since illness started and time since recovery) in consultation with state and local public health officials. The decision involves considering the specifics of each situation, including disease severity, illness signs and symptoms, and the results of laboratory testing for that patient.

Learn more about CDC’s guidance on when to release someone from isolation and discharge hospitalized patients with COVID-19. For information on when someone who has been sick with COVID-19 is able to stop home isolation see Interim Guidance for Discontinuation of In-Home Isolation for Patients with COVID-19. The World Health Organization (WHO, https://www.who.int) also has excellent technical guidance; see https://www.who.int/emergencies/diseases/novel-coronavirus-2019/technical-guidance.

Someone who has been released from isolation is not considered to pose a risk of infection to others.
Can someone who has been quarantined for COVID-19 spread the illness to others?

Quarantine means separating a person or group of people who have been exposed to a contagious disease but have not developed illness (symptoms) from others who have not been exposed, in order to prevent the possible spread of that disease. Quarantine is usually established for the incubation period of the communicable disease, which is the span of time during which people have developed illness after exposure. For COVID-19, the period of quarantine is 14 days from the last date of exposure because the incubation period for this virus is 2 to 14 days. Someone who has been released from COVID-19 quarantine is not considered a risk for spreading the virus to others because they have not developed illness during the incubation period.

Can the virus that causes COVID-19 be spread through food, including restaurant take out, refrigerated or frozen packaged food?

Coronaviruses are generally thought to be spread from person to person through respiratory droplets. Currently, there is no evidence to support transmission of COVID-19 associated with food. Before preparing or eating food it is important to always wash your hands with soap and water for at least 20 seconds for general food safety. Throughout the day use a tissue to cover your coughing or sneezing, and wash your hands after blowing your nose, coughing or sneezing, or going to the bathroom.

It may be possible that a person can get COVID-19 by touching a surface or object, like a packaging container, that has the virus on it and then touching their own mouth, nose, or possibly their eyes, but this is not thought to be the main way the virus spreads.

In general, because of poor survivability of these coronaviruses on surfaces, there is likely very low risk of spread from food products or packaging.

Learn what is known about the spread of COVID-19.

Can I get sick with COVID-19 if it is on food?

Based on information about this novel coronavirus thus far, it seems unlikely that COVID-19 can be transmitted through food – additional investigation is needed.

Will warm weather stop the outbreak of COVID-19?

It is not yet known if weather and temperature affect the spread of COVID-19. Some other viruses, like those that cause the common cold and flu, spread more during cold weather months, but that does not mean it is impossible to become sick with these viruses during other months. There is much more to learn about the transmissibility, severity, and other features associated with COVID-19 and investigations are ongoing.

What is community spread?

Community spread means people have been infected with the virus in an area, including some who are not sure how or where they became infected.

What temperature kills the virus that causes COVID-19?

Generally, coronaviruses survive for shorter periods at higher temperatures and higher humidity than in cooler or dryer environments. However, we don’t have direct data for this virus, nor do we have direct data for a temperature-based cutoff for inactivation at this point. The necessary temperature would also be based on the materials of the surface, the environment, etc. Regardless of temperature, please follow CDC’s guidance for cleaning and disinfection.

Can mosquitoes or ticks spread the virus that causes COVID-19?

At this time, the CDC has no data to suggest that this new coronavirus or other similar coronaviruses are spread by mosquitoes or ticks. The main way that COVID-19 spreads is from person to person. See How Coronavirus Spreads for more information.
How to Protect Yourself

Am I at risk for COVID-19?

This is a rapidly evolving situation and the risk assessment may change daily. The latest updates are available on the CDC’s Coronavirus Disease 2019 (COVID-19) website and the WHO’s Coronavirus Disease 2019 (COVID-19) website.

How many cases have been reported?

COVID-19 case counts for the United States are updated regularly online. See the current U.S. case count of COVID-19. For world statistics by individual country, go to https://www.who.int/emergencies/diseases/novel-coronavirus-2019/situation-reports/.

How can I help protect myself?

Visit the COVID-19 Prevention and Treatment page to learn about how to protect yourself from respiratory illnesses, like COVID-19. The CDC recommends that everyone do their part to help us respond to this emerging public health threat:

► CDC is recommending the use of a cloth face covering to keep people who are infected but do not have symptoms from spreading COVID-19 to others.
► The cloth face cover is meant to protect other people in case you are infected.
► The cloth face coverings recommended are not surgical masks or N-95 respirators. Medical face masks are critical supplies that should be reserved for healthcare workers and other first responders, as recommended by CDC.
► The cloth face cover is not a substitute for social distancing.
► CDC continues to recommend that people try keep about 6 feet between themselves and others.

What should I do if I have had close contact with someone who has COVID-19?

There is information for people who have had close contact with a person confirmed to have, or being evaluated for, COVID-19 available online.

Does the CDC recommend the use of facemask or face coverings to prevent COVID-19?

In light of new data about how COVID-19 spreads, along with evidence of widespread COVID-19 illness in communities across the country, CDC recommends that people wear a cloth face covering to cover their nose and mouth in the community setting. This is an additional public health measure people should take to reduce the spread of COVID-19 in addition to (not instead of) social distancing, frequent hand cleaning and other everyday preventive actions. A cloth face covering is not intended to protect the wearer, but may prevent the spread of virus from the wearer to others. This would be especially important in the event that someone is infected but does not have symptoms. A cloth face covering should be worn whenever people must go into public settings (grocery stores, for example). Medical masks and N-95 respirators are reserved for healthcare workers and other first responders, as recommended by current CDC guidance.
A pandemic will have several impacts on people, businesses, and even the fabric of our society. The following is a general listing of such effects; clearly it is not all inclusive. Note that as of the publication of this manual (April 2020), many of these have already occurred. Factor this into your planning and response.

**Employee and Building Tenant Impacts**

- An employee absenteeism rate of 25 to 50 percent can be expected
- Social distancing strategies and work-from-home policies may cause buildings to be empty or with minimal employees/tenants
- Employees may show reluctance to use public transportation or work in the vicinity of other people
- Public transportation may be cut back or even halted, requiring alternate forms of transportation
- Employees are likely to be overwhelmed with personal concerns during a pandemic; expectations about employees’ capacity to work may be vastly over-estimated
- Even if government agencies have not imposed travel restrictions, employees are likely to show a reluctance to travel
- During a pandemic, use of Employee Assistance Programs can be expected to increase
- Employees with chronic diseases or pre-existing health conditions are at greater risk and may require special accommodations
- Building occupants may assume that access attendants or security guards will be familiar with pandemic protection measures; they should be prepared to provide basic information or refer people to the correct information source
- Building occupants may expect that FM employees will provide protective equipment and cleaning supplies. Requested supplies may include: sanitizer, soap or hand cleaner, disinfectant wipes, filtering face pieces (e.g., N95 type)
Supply Chain Impacts
▶ Just-in-time suppliers may experience delays or stoppages; all suppliers may be impacted
▶ Problems experienced by third party logistics providers may be particularly disruptive
▶ Small, specialized suppliers may suffer a permanent closure
▶ Alternate suppliers may also suffer pandemic impacts that limit support capabilities
▶ Shipping and postal/delivery services may be disrupted
▶ Port and/or border closings may impact the supply chain
▶ Excess inventory or working stock may be depleted rapidly
▶ Suppliers of personnel may suffer higher levels of disruption

Critical Infrastructure Impacts

GOVERNMENT
▶ Government agencies may discontinue providing non-vital services
▶ Emergency services (fire, police, and emergency medical services) may be overwhelmed
▶ Government will be responsible for coordinating the prioritization and distribution of vaccines, antivirals, and possibly in some cases, medical supplies
▶ Government agencies and the military may be required to assist in the delivery of food and supplies and with medical services
▶ Government agencies may make temporary accommodation and use of facilities (e.g., hotels, university dorms and convention centers for homeless or medical facilities)

HEALTHCARE AND MEDICAL
▶ Existing healthcare systems across the globe will be overwhelmed
▶ The ability to diagnose symptoms will be overwhelmed
▶ Healthcare providers will experience shortages of supplies, medications, tests
▶ Vaccines may not be available for two to six months or more after a pandemic outbreak
▶ State and local public health agencies may prioritize the distribution of supplies and vaccines to the local population
▶ Hospitals’ inability to handle large numbers of sick may limit elective or other less critical healthcare needs
▶ Personal protective equipment such as surgical masks will be in short supply early on and possibly throughout the pandemic state
TELECOMMUNICATIONS
- The public telephone network may be quickly overwhelmed
- Cellular telephone service may be congested, particularly with large numbers of people working at home
- Absenteeism among telecom workers may delay outage repairs, new services, and customer services

TRANSPORTATION
- Public transportation will be used very little or may be halted by government edict
- Commercial transportation providers (rail, land, air, maritime) may experience delays, cutback of services, or shutdowns

POWER
- Absenteeism among power utility workers may delay outage repairs, new services, and customer services

FINANCE
- Markets will decline significantly due to economic concerns

INFORMATION TECHNOLOGY
- Many organizations will implement a work-from-home (WFH) policy; social distancing strategy and/or directives may require this action
- The internet may be congested due to high volumes of users; a prioritization scheme may be required to ensure that vital government and social functions can continue
- Company VPNs, web applications, and other remote access methods may be congested due to high user volumes
- Delays may be experienced in new product installation, product upgrades, system support, and network repair
- Employees may experience difficulties contacting IT support or accessing IT help-desks
- On-site support may be limited due to social distancing strategy/policies

POSTAL AND SHIPPING
- Shipping and freight disruptions may occur
- Postal delays can be expected due to transportation disruption, postal employee shortages, and special mail handling procedures
- Local courier services may be disrupted
- Building courier services may be disrupted

EDUCATION
- Public and private schools can be expected to be closed in the early indications of a pandemic
- Colleges are expected to close; in some cases, the campus will be closed to students and staff

SANITATION SERVICES
- Solid and hazardous waste hauling may be disrupted due to employee absenteeism, special waste-handling protective measures, and increased volumes of waste

RETAIL
- The early phases of a pandemic may result in runs on stores and supermarkets for items such as water, paper products, non-perishable food and goods, batteries, generators, flashlights, and over-the-counter medications
- Retail services may operate at less-than-normal levels due to employee absenteeism, supply problems and the infrastructure disruptions described above
Social Impacts

- The public may place an early and continuing demand on retail “family preparedness supplies,” such as:
  - Water
  - Paper products
  - Personal hygiene items
  - Non-perishable food and goods
  - Batteries
  - Flashlights
  - Generators
  - Non-prescription drugs

- In areas where severe illness and deaths occur, extreme fear may lead to civil unrest, particularly at medical facilities

- Public gathering places such as churches, libraries, museums, cinemas, restaurants, and retail centers may close

- Imposed quarantines might be ignored

- People may be very reluctant to return to work for a long period of time. On the other hand, some people may want to return to work before federal/state/local authority guidelines permit

- It is unknown how the public may react to martial law, if imposed
The following pages present several facilities-centric pandemic risk factors and possible control options for consideration.

**FACILITY RISK FACTORS:**

21 Urban Facilities
22 Employee/Tenant Concentrations
22 Workspace Arrangements and Employee Proximity
23 Multi-Tenant Offices
23 Ventilation
23 Shared Equipment
24 Common Areas
24 Access to Washrooms/Cleaning Facilities
25 Deliveries and Visitors
25 Food Service
## Urban Facilities

### RISK FACTORS:
- Buildings located in an urban area will be more prone to experience the impacts of mass transportation disruptions or stoppages.
- Due to population density, urban areas may be subject to higher rates of civil disturbance during a pandemic.
- Employees that work in urban areas may be more reluctant to expose themselves to the large numbers of people encountered in larger cities.
- Mass media will likely focus attention on larger urban areas, further raising the level of employees’ concern.
- It is likely that larger cities will experience a pandemic before smaller towns, as they serve as transportation hubs through which the virus may be carried.
- Urban facilities are likely to be high-rises, meaning employee use of elevators is high. Close contact in elevators increases the rate of transmission.

### CONTROL OPTIONS:
- Emphasize employee awareness of pandemic symptoms, and methods of protecting against the virus. Promote knowledge to fight fear.
- Advise employees to adhere to “cough etiquette” on elevators, or to take the stairs if feasible.
- Advise employees to work remotely (if they are equipped to do so) to reduce on-site employee populations.
Employee/Tenant Concentrations

**RISK FACTORS:**
- Higher concentrations of workers in a building will result in a higher degree of exposure following the onset of a pandemic.

**CONTROL OPTIONS:**
- To the extent possible, disperse employees to reduce their concentration. Consider adding shifts to the workday to limit the number of people working together.
- Advise employees to work remotely (if they are equipped to do so) to reduce on-site employee populations.

Workspace Arrangements and Employee Proximity

**RISK FACTORS:**
- Employees working in open spaces are more likely to transmit the pandemic virus among the employee population than employees who work in an area confined to one individual, such as a single office or work-room. Factory floors, cubicles, call centers, training centers, retail centers, medical facilities, and customer service desks are some examples of areas where social distancing, or separation between people, should be emphasized.
- Work areas in which employees are in close proximity will increase the rate of virus transmission.
- The length of time that employees are in proximity to each other will impact the level of exposure.
- Several employees working together in a confined workspace will also increase exposure if one employee becomes infected.

**CONTROL OPTIONS:**
- Emphasize social distancing and cough etiquette among employees. Increase the number of shifts to decrease the proximity between employees.
- Consider re-occupying non-used building space to provide more physical distance between employees.
- Temporarily cease on-site customer services; use phone or email customer service options instead.
- Advise employees to work remotely (if they are equipped to do so) to reduce on-site employee populations.
Multi-Tenant Offices

**RISK FACTORS:**
- FM personnel are likely to experience more difficulties in communicating in a multi-tenant facility than if the building is occupied by a single organization, particularly as multi-tenant office buildings may not be staffed with on-site FM personnel. The result may be higher levels of employee concerns and inquiries.

**CONTROL OPTIONS:**
- Pre-identify means of communicating rapidly with key tenant stakeholders. Advise them to establish means of communicating with their employees.
- Reduce the probability of conflicting information by establishing a common point of contact for facilities-related questions and concerns.

Ventilation

**RISK FACTORS:**
- Poor ventilation in a work area will increase employee exposure to the pandemic virus.

**CONTROL OPTIONS:**
- Increase ventilation by opening windows, increasing air flow, and ventilating work areas thoroughly between shifts.
- Increase HVAC preventive maintenance cycles to ensure filters are cleaned and the system is functioning properly.

Shared Equipment

**RISK FACTORS:**
- Facilities at which employees frequently touch and share common items such as telephones, writing instruments, test equipment, hand-tools, files, books, and computers are subject to an increased rate of virus transmission.

**CONTROL OPTIONS:**
- Educate employees about the means by which the pandemic virus is transmitted.
- Make hand-sanitizers, sanitizing wipes, and other hygienic supplies readily available to employees.
- Instill hygienic practices of wiping down common surfaces prior to touching them. Limit the contact with shared items by assigning equipment to specified individuals.
Common Areas

**RISK FACTORS:**
- Buildings with common gathering areas such as cafeterias, break rooms, training and conference rooms may incur a higher virus transmission rate resulting from close employee proximity.

**CONTROL OPTIONS:**
- Limit the number of people in a common area at any given time. Consider closing non-essential common areas.
- Make hand-sanitizers and other hygienic supplies readily available to employees.
- Emphasize social distancing and cough etiquette among employees.
- Suspend discretionary events such as training sessions and large meetings.
- Implement increased cleaning and sanitation measures. Include the sanitizing of commonly touched surfaces such as arms on chairs, tabletops, doorknobs, countertops, and coffee pots.

Access to Washrooms/ Cleaning Facilities

**RISK FACTORS:**
- Controlling the transmission of the pandemic virus is significantly improved with sanitary practices among employees. Easy access to washrooms and sanitary supplies such as hand cleaner, tissues, and sanitary wipes will contribute to controlling the spread of viruses.

**CONTROL OPTIONS:**
- Make sanitary supplies widely available to the employee/tenant population. Encourage employees to frequently wash hands with soap or hand-cleaner. If possible, add hand-wash stations or restrooms for employee/tenant use.
Deliveries and Visitors

**RISK FACTORS:**
- The frequency of deliveries and visitors to a facility will impact the ability to control the introduction or spread of a virus. Even if an employee body is well-disciplined in social distancing, sanitation practices, and cough etiquette, the presence of non-employees who are not as disciplined will present opportunities for exposure to the pandemic virus.

**CONTROL OPTIONS:**
- Limit or prohibit visitor admittance to facilities. Advise employees to meet visitors at an off-site location.
- Increase access control at open facilities to prevent entry by non-employees/tenants.
- Restrict delivery personnel access to essential areas.
- Provide visitors with hand-sanitizer and tissue travel-packs upon entry to the building. Advise visitors that they are being given this item because the facility takes hygiene seriously and cares about the visitors’ health as well.

Food Service

**RISK FACTORS:**
- Food service areas such as cafeterias and kitchens present a higher exposure of viral ingestion by the very nature of food consumption. Viruses can be transmitted between or among kitchen staff and patrons, either directly or indirectly through contact with infected surfaces. With respect to cafeterias or other dining facilities, the number of patrons will directly correlate with the potential for infected people that can spread the virus. Higher numbers of patrons also increase the difficulty in building infection prevention awareness.

**CONTROL OPTIONS:**
- Increase kitchen staff protective gear requirements, such as requiring all staff to wear filtering face pieces, smocks, and rubber gloves.
- Limit options for patron self-service; restrict food service to kitchen staff wearing proper protective equipment.
- Eliminate buffet-style or similar service options.
- Limit food offerings to pre-wrapped food items that are safe from being touched by patrons or exposed to patron sneezes and coughing.
- Require kitchen staff to issue flatware and kitchen utensils to prohibit patrons from touching items that will be used by others. Otherwise use plastic-wrapped kitchen utensils and flatware.
- Assign kitchen staff to circulate among patrons to explain the preventive measures being employed or post readily visible posters with this information.
- Consider closure of food service facilities.
In the Planning/Preparation Phase, organizations and Facility Managers should consider the topics detailed in the sections following.

**TOPICS:**
- 26 Pandemic Policies and Procedures
- 28 Contact Lists
- 29 Critical FM Services
- 29 Supplies
- 30 Vital Records
- 31 Employee Training and Awareness
- 31 Employee and Customer Protection
- 32 Critical Organization Infrastructure
- 32 Crisis Management and Business Continuity

The Planning Phase for a pandemic should occur prior to pandemic effects being observed. The pandemic plan, policies, and procedures should be developed well in advance so that the company is ready, to the extent possible, to deal with a pandemic. The Preparation Phase occurs when government officials determine that a pandemic will hit the organization/area. The organization should begin to launch or establish the procedures and policies determined during the Planning Phase. For this manual, we combine the two areas.

**IMPORTANT NOTE:**

Facility Managers and senior Facilities staff should maintain a log of events by date/time. In this log they should also record all processes that worked well and any that need correction. Also critical are any comments and suggestions for improvement.

**Pandemic Policies and Procedures**

- Identify and train back up personnel for key positions – this identification/training process should be implemented down to the supervisor level
- Determine a skeleton crew by position (minimum staffing)
- Verify the cross-training of personnel; establish a goal of cross training to assure 100 percent redundancy, i.e., more than one person can assume any given position in the department
- Review if it is possible and beneficial for your department to implement temporary alternative work schedules. Alternatives could include:
  - More hours worked in fewer days (e.g., 10-hour days, four days per week)
  - Split shifts
  - Evening hours
  - Weekend hours
  - Staggered shifts
  - Reduced hours for special needs
  - Remote working/Teleworking/Work-from-home
- Develop a list of who has signature authority for whom and for what within your department; review this list and verify that there is at least one person who can sign for any (or more than one) person who might become ill for an extended period, then file a copy with the Finance and Purchasing Departments; discuss the list and its importance with your staff
- Establish methods of quickly communicating with building occupants/tenants, suppliers, service providers, and other key personnel
- Determine any contractors who might be able to provide personnel or functional support; develop a list of these companies, their needed resources, and an estimate of the number of contract personnel you might need; the contracting companies should be identified to the Human Resources/Purchasing/Legal (whichever is appropriate) representative on the Pandemic Team for initial discussions concerning availability of resources
- Develop a list of retired employees or ex-employees (in good standing) who would be willing to work temporarily on a contract basis. Contact them to determine if they would be available
- Update the list of companies (and contacts) that share buildings, floors, and facilities with organization employees, in all occupied buildings; these contacts would be used to confer with each other on pandemic issues of common concern
- Establish policies for authorizing office and building closure and re-opening
- Conduct a Facilities Department tabletop drill based upon running your department with 30 to 40 percent staff absenteeism; vary the persons who are absent, including persons not in your department but that might affect Facilities personnel and response. Address many of the issues described herein
- Establish and maintain periodic contact with landlords of the organization’s offices; ascertain if they have a Pandemic Plan (at a minimum, hygiene and transmission-prevention practices)
- Investigate if there are any landlord/tenant issues in implementing any part of this Pandemic Plan – Issues may include:
  - Verifying tenants that share buildings, floors, and facilities (bathrooms, lunchrooms) have pandemic plans (at a minimum, hygiene and transmission-prevention)
  - Posting informational signs in landlord-controlled or shared areas
  - Instructions to landlord-provided janitorial staff to clean bathrooms, lunchrooms, and common areas more frequently and with anti-bacterial products
  - Implementing your personal and office hygiene and transmission-prevention practices on someone else’s property
- Obtain/Post pandemic informational/instructional signs for:
  - Bathrooms
  - Staff lounges
  - Work areas
  - Display cases
  - Shared workspaces
  - Lunchrooms/Cafeterias
  - Entry doors: “No Visitors Allowed. Contact X for further information”
Validate that FM Department personnel know how to re-route critical phone, fax, and electronic communications in the event of a telecommunications failure.

Place any major projects, upgrades, changes, or maintenance needs:
- On a fast-track to complete them before the pandemic strikes
- On a to-do status while the building is unoccupied
- On hold until the pandemic is over

Review your suppliers and supply chain:
- If a sole source supplier, determine alternative suppliers
- Review contracts and vendor relationships. What happens if vendors cannot supply products and services? What are the consequences? Do alternatives exist?
- Do your suppliers have pandemic (or at least business continuity) plans? Are they prepared for a pandemic?
- Is there a sufficient supply of masks, gloves, gels, etc. to support a 60-day usage? If not, an order for these supplies should be assessed

Contact Lists

Facility Managers should develop contact lists for the following entities. Note that much of this information should be in your Facilities Department Business Continuity Plan.

- Key Facilities Functions/Staff by Location, Department, and Name
- Company Hotlines and Other Contacts
- Crisis Management Team
- External Contacts
  - Fire, Police, EMS
  - Local Hospitals
- Tenants and landlords
- Vendors/Suppliers/Contractors
  - By Service/Product
  - By Name/Location
  - Consider including:
    - Access Control
    - Custodial services
    - Electrical/Utilities
    - Food Services
    - Generator/Transfer Switch/UPS
    - HazMat Cleanup
    - HVAC Servicing
    - Mail/Courier Services
    - IT Services and Hardware
    - Office Equipment and Supplies
    - Plumbing
    - Records Archiving
    - Recovery Services
    - Security System and Services
    - Structural Engineering
    - Travel Security
    - Waste Disposal
Critical FM Services
Evaluate FM priorities to be invoked in the event of a loss of several FM staff and many service suppliers. Numbers/percentages will depend upon the specific pandemic event; check with the latest government directives and projections. Consider options for temporarily discontinuing FM functions, and augmenting highly critical functions. Evaluate all business-as-usual FM responsibilities and develop a prioritization list. Consider the following:

- Building access system
- Building leasing and sales
- Building sanitation and custodial services
- Building system maintenance
- Building systems applications
- Damage assessment and repair
- Emergency response operations (e.g., building evacuations)
- Environment, Health and Safety reporting
- Environmental monitoring and reporting
- Food services
- Grounds maintenance
- Information Security
- Mail collection and distribution
- Monitoring and management of controlled environments (data centers, clean rooms, server rooms, PBX rooms)
- Monitoring and management of security and life safety alarms/systems
- Office space relocation
- Physical security and access control
- Pollution control and waste management
- Tenant communications
- Transportation services
- Waste management

Supplies
Verify the FM organization has adequate supplies (or access to adequate quantities) of the following provisions. Determine who (facility maintenance crews, employees, visitors) will need what when. Identify storage needs (including lockdown of supplies) and distribution processes.

- Antiseptic hand cleaners or alcohol-based soaps
- Antiseptic wipes and tissues
- Antiseptic or chlorinated cleaners
- Personal protective equipment (face masks, gloves, eye protection, head covers, smocks)
- Cleaning equipment consumables
- Waste baskets/liners
- HEPA Filters for HVAC systems
- Bathroom supplies
- Breakroom supplies
- Common area supplies
- Pandemic informational signs
**Vital Records**

Specific documents may be required to perform critical FM functions. These documents may include:

- Building and utility schematics
- Building lease agreements
- Building systems and equipment manuals
- Capital assets inventory
- Contracts with recovery service providers
- Hazardous materials communication books
- Instructions for operating special equipment
- Insurance records
- Lock combinations for storage facilities
- Original site blueprints
- OSHA archives (USA only)
- Real estate titles and other transactional documents
- Records verifying regulatory compliance, such as environmental monitoring and safety records
- Security information/resources such as lock combinations, system login/passwords, and keys
- Security inspection logs
- Security surveillance tapes
- Utility schematics
- Vehicle pool keys

Options for storing and later recovering vital records may include any of the following:

**OFF-SITE DOCUMENT STORAGE**

Critical documents may be stored in secure off-site facilities. These storage facilities should not be subject to the same local hazards as the facilities from which the documents originate (e.g., avoid storing documents in a location that is subject to the same earthquake activity as the facility of concern). Third parties may be contracted for this service.

**IMAGING**

Critical documents may be scanned into an electronic imaging system for storage in the IT infrastructure. This approach will not be effective if IT disaster recovery capabilities are limited to data storage at the facility of concern.

**RETRIEVAL FROM DOCUMENT SOURCE OR RECIPIENT**

Documents that were generated by a third party or that were sent to a third party may be recovered by requesting a copy. In some cases, the third party may charge a fee for this service. Once vital records have been identified, Facility Managers should contact third parties to verify that records can be provided. Facility Managers should also ensure that all necessary document notarizations and certifications are undertaken.

**DOCUMENT RECOVERY**

Usually as a last resort, the Facility Managers may desire to retrieve vital records from an impacted facility. This is not a preferred method, as there is no guarantee that access to the building will be granted by responders. However, if retrieval is possible, the following planning measures are recommended:

- Store the documents in a fireproof environment.
- Store the documents in an area that is not subject to water damage. Consider water damage from regional flooding, internal flooding from causes such as water main breaks, and water damage from deluge sprinkler systems.
- Identify the specific location of vital records in the BC Plan.
- Visibly mark the document storage locations with luminescent stickers or other devices that will enable recovery personnel to quickly locate the files. Note that visibility may be limited after a disaster, so visible indicators should be clear and obvious.
- Identify a document recovery contractor that can assist with document retrieval and recovery. Depending upon the Facility Manager’s reliance on these documents, it may be advisable to pre-contract for these services to guarantee service following a disaster.
Employee Training and Awareness
Verify that employees:

1. Are knowledgeable of the use, sanitizing, and disposal of personal protective equipment (particularly maintenance and custodial employees)
2. Understand social distancing policies and practices
3. Know how to maintain a safe workplace
4. Are educated to recognize flu/pandemic symptoms
5. Understand organization procedures for reporting pandemic-related symptoms
6. Understand Human Resources policies regarding pandemic response
7. Know how to obtain information related to the pandemic
8. Have verified that they are able to remotely access systems, data, and other electronic records as needed

Employee and Customer Protection
Verify/Implement:

1. Employees have been trained on pandemic prevention techniques to include cough etiquette, social distancing, and personal hygiene practices
2. Employees are aware of interim policies specific to the pandemic and have knowledge of criteria for allowing previously affected employees back in the workplace
3. Sufficient quantities and types of hygienic products are available to employees and, as applicable, customers and visitors:
   ▶ Soap or hand-cleaner
   ▶ Disinfectant wipes
   ▶ Protective masks and gloves
4. Restrictions applicable to non-employees such as visitors, deliveries, and vendors are in place to limit the introduction of infected individuals
5. Additional FM system and custodial measures are in place to reduce the risk of infection, such as more frequent cleaning and sanitizing of common surfaces and increased ventilation
6. At-risk employees (those with chronic health conditions) are working off-site or have adequate separation from the general employee population
7. Employees have been trained to identify influenza/pandemic symptoms, and actions to take upon seeing/experiencing these symptoms
Critical Organization Infrastructure

Verify/implement:

1. FM has established alternate routing and or redundancy for critical telecommunications. Key personnel have been trained on executing these contingencies.
2. FM personnel have verified that adequate network capacity is available to support large volumes of employees working remotely, and that necessary systems can be accessed remotely.
3. FM and IT have collaborated on plans to ensure that vital IT services will remain functional during periods of minimal staffing. Non-vital systems and/or hardware that may not be maintained have been identified.
4. Standby generators have been tested periodically under the appropriate load. Generators are refueled after each test.
5. Contracts are in place to ensure priority fuel delivery in the case of fuel delivery disruptions or long-term, regional power outages.
6. Transportation service options have been identified to assist FM employees in getting to work and/or performing critical functions.
7. If on-site medical services are normally provided, alternate service providers and locations have been identified. Instructions for use have been prepared for communication to the employee population.
8. If 24/7 on-site FM presence is anticipated during a pandemic, pre-stock non-perishable food and water, or identify food service providers. Pre-contract as appropriate. Also consider making arrangements for employees to sleep onsite or near the site if they are unable to go home.

Crisis Management and Business Continuity

Verify/implement:

1. The FM Incident Coordinator has been designated to lead the Facility Department pandemic mitigation, response, and recovery activities as part of the organization's Crisis Management Team
2. Facility Management Business Continuity Plans have been reviewed and updated
3. Current copies of Crisis Management/Business Continuity Plans have been distributed to key personnel
4. Designated and key FM employees identified in Business Continuity Plans have been trained/refreshed on their roles and responsibilities
5. A communications plan has been developed to ensure that all key individuals are involved in and are aware of pandemic-related decision-making
These specific topics are addressed in the following sections.

**TOPICS:**
- 34 General Strategies for Resuming FM Work Functions
- 35 Communications
- 36 Facility Cleaning and Disinfecting
- 39 Building Systems
- 40 Site Access Restrictions and Closure
- 41 Supply Chain Management
- 41 Critical Vendor and Supplier Strategies
- 41 Vital Records Recovery

During the Response Phase, the pandemic procedures, policies, and measures are in effect. FM leaders must monitor the impact of the pandemic on your organization, its operations, and its services. Response will be flexible as required. In general:

▶ Continue Facilities Pandemic Team meetings/monitoring/decisions/priorities that FM leadership has established, adjusting as necessary.

▶ Continue Crisis Management Team attendance/coordination. Senior leadership in the organization’s Crisis Management Team and FM structure is being kept appraised of control strategies, impacts, response activities, and other appropriate information.

▶ Implement/continue staffing options and policies
  ✓ Remote working/Teleworking/Work-from-home
  ✓ Cross-shared responsibilities
  ✓ Contractors and retirees

▶ Monitor suppliers/providers and customers for trends

▶ Continue prevention policies/actions/practices – monitor and adjust as necessary

▶ Provide employees with department updates weekly, if not daily

▶ Offer/provide counseling to employees as needed

▶ Inventory supplies weekly to verify adequate stocks

▶ Verify that security and safety measures continue for employees that are working at alternate worksites

**IMPORTANT NOTE:**
Facility Managers and senior Facilities staff should maintain a log of events by date/time. In this log they should also record all processes that worked well and any that need correction. Also critical are any comments and suggestions for improvement.
General Strategies for Resuming FM Work Functions

If FM employees performing critical functions cannot access their normal work location, consider the following strategies:

**ESTABLISH FACILITY MANAGEMENT MUTUAL AID CAPABILITIES**

Facility Management groups or departments that perform like or similar functions at multiple locations may provide mutual support by re-directing work to one another. Rerouting voice and data communications may be required. Internal and external organizations that interface with the impacted department should be notified if work is re-directed to another location.

**ESTABLISH REMOTE OR WORK-FROM-HOME CAPABILITIES**

FM employees having access to critical systems using remote access such as VPN or internet access to web applications may be able to perform work functions from home or other locations. This option may rely upon employee discipline in taking laptops and remote security tokens home from work on a routine basis, VPN capacity, the ability to remotely access the internet, and other technology constraints.

**ESTABLISH WORK CAPABILITIES AT AN ALTERNATE FACILITY**

In some cases, work-groups can be re-established at another location within the organization. This option is constrained by available workspace in other buildings, the geographic proximity of other buildings, and employees’ ability to travel to other buildings. This option is usually considered if an extended building disruption is expected.

**CONTRACT ALTERNATE WORK CAPABILITIES AT A THIRD PARTY FACILITY**

In the absence of workspace at another building within the organization, the use of a third party workspace may be purchased. Types of third parties include mobile workspace providers, hotels, conference centers, community colleges/universities, businesses with excess capacity, and others. This option may be attractive if the use of another building within the organization is not viable, and the third party workspace will avoid the need for employee travel.

**TEMPORARILY OUTSOURCE CRITICAL FM WORK FUNCTIONS TO THIRD PARTIES**

A temporary option for continuing critical FM work functions may be to contract with external providers to perform those functions for a period of time. The viability of this approach will depend on cost and on the ability to identify resources with appropriate expertise.
Communications

- Continue necessary communications with building tenants on items such as:
  - Control measures (e.g., social distancing, cough etiquette, hand-washing, use of sanitary wipes, and similar items)
  - Instructions on obtaining hygiene and sanitation supplies
  - Building closures and/or access restrictions
  - Temporary protocols applicable to managing visitors, deliveries, and others as appropriate
  - Changes in Facility Management policies and practices (i.e., certain routine functions may be suspended, while others may occur specifically to control virus transmission – employees should be aware of the changes)
  - Other relevant procedures to be followed by building occupants
  - Sources of more information
- Continue to communicate frequently with employees in all phases of the pandemic. Provide routine updates. Use multiple communications methods (third party mass communication system, web conference applications, voicemail, internal website, email, flyers, posters, and briefings).
- Evaluate the need to issue messages in languages other than English.
- Inform senior leadership (specific to FM, the overall organization, and the site) of FM plans and strategies.
- Remain cognizant of HIPAA (United States Health Insurance Portability and Accountability Act of 1996) limitations on communicating specific medical conditions.
- Provide employees with a mechanism of giving feedback or expressing concerns that can be used by FM to improve processes during a pandemic.
- Instruct employees to refer media inquiries to a central contact in the appropriate Media Relations, Public Relations, or Corporate Communications department.
- Contact organizations in the FM supply chain to assess impacts and forecast potential delays or disruptions.
- If supply chain disruptions are anticipated, contact alternate providers and evaluate support capabilities. Establish support contracts as appropriate.
- If Business Continuity Plans are invoked, notify vendors, suppliers, contractors, business partners, and other critical third parties of any changes in business functions, locations, support needs, and communications protocols.
Facility Cleaning and Disinfecting

GENERAL FACILITIES INFORMATION

- Viruses may live on hard surfaces for possibly days. Evaluate and implement measures to minimize the transmission of the virus through environmental sources, specifically hard surfaces. Check with Health Department and medical officials for the optimal materials/methods/practices. These may change over time.

- Train custodial personnel on flu/pandemic transmission methods.

- Establish standards for use of personal protective equipment. Train all custodial employees on the proper use and disposal of personal protective equipment.

- As frequently as practical, clean hard surfaces that are commonly touched by employees with a neutral detergent followed by a disinfectant solution. NOTE: These are general guidelines. Follow federal and local Health Department instructions.

- Hard surfaces may include:
  - Handrails
  - Doorknobs/handles
  - Elevator buttons
  - Sinks and faucets
  - Countertops
  - Windowsills
  - Light switches
  - Equipment controls
  - Cabinet and file drawer knobs/handles
  - Vending machines
  - Chair arms
  - Copier/printer/fax control buttons

- Provide disinfectant soap in all bathrooms and break areas. Encourage employees to wash hands frequently (several times per day).

- Provide sanitizing/disinfecting wipes to all departments and encourage employees to frequently (several times per day) sanitize surfaces that they are in contact with. Emphasize sanitation of items that are used close to the face, such as telephones, smartphones, hands-free microphones, radios, hard-hats, and similar items.

- Place sanitizing/disinfecting wipes in company vehicles with reminders to wipe down steering wheels, knobs, and gearshifts before and after use.

- Use hand-held black lights and phosphorescent powder to detect viral and bacterial residues. Check with local health authorities.
DINING ROOMS AND CAFETERIAS

Follow the sanitation measures described above. Consider the following temporary measures to reduce the potential for virus transmission:

▶ Place a sanitation station at the entrance to the dining facility. Require patrons to use alcohol-based cleaner or sanitary wipes prior to entering the facility.

▶ Reduce patron concern by posting information summarizing the steps that the food service facility is taking, why, and what individuals can do to reduce pandemic transmission (clean hands routinely, cough etiquette, social distancing). Assign a management employee to circulate among patrons at the dining facility to answer questions or concerns.

▶ Replace silverware with plastic wrapped, disposable eating utensils.

▶ Offer only food items that are individually packaged.

▶ Suspend offering buffet line items that are open to employees and typically protected only by a sneeze guard. Alternatively, place buffet items behind a serving counter and assign cafeteria staff to serve the items rather than allowing self-serve.

▶ Suspend offering items that are prepared off-site under conditions that are not monitored by the company.

▶ Suspend offering items that are not cooked and are not pre-packaged (e.g., salads, fruits, raw vegetables, uncooked sandwiches, bakery items, and so forth).

▶ Place trays, cups, coffee mugs, plates, and other items normally openly accessible to patrons in a secure area. Do not allow patrons access to these items until issued on an individual basis. Ensure the cafeteria workers issuing these items are wearing rubber gloves and masks.

▶ Assign cafeteria personnel to continuously sanitize hard surfaces that are commonly touched by patrons.

▶ Identify triggers indicating temporary closure of the cafeteria is appropriate:

  ✓ News of pandemic transmission at other food service facilities.
  ✓ High levels of employee concern about pandemic transmission at the food service facility.
  ✓ Limited use of the facility by patrons.
  ✓ Very low availability of cafeteria staff.

COMMERCIAL KITCHENS/FOOD PREPARATION AREAS

Evaluate and implement appropriate options contained in Dining Rooms and Cafeterias. In addition, consider the following options:

▶ Train all kitchen employees on pandemic transmission and prevention measures.

▶ Require the use of rubber gloves, paper food service masks, smocks, and headgear by ALL food preparers at ALL times in the kitchen.

▶ Arrange for clothing worn by kitchen staff to be washed nightly.

▶ Frequently sanitize food preparation items (pots, pans, knives, cutting boards, and similar items). Soak implements in a bleach solution for 30 minutes (1 cup [250 ml] or 5.25 percent unscented household bleach to 5 gallons (20 liters) of water) or as recommended by local health authorities.

▶ Ensure delivery of food items is monitored closely to ensure kitchen contamination does not occur. Alternatively, do not allow delivery personnel in the kitchen.

▶ Cutting boards that are pitted, cracked or otherwise in poor condition should be discarded.
**BATHROOMS**

Evaluate and implement appropriate options contained above. In addition, consider the following options:

- Consider installation of motion-sensor activated soap dispensers, toilet flushers, paper towel dispensers, and sink faucets.
- On all bathroom doors, place reminders of the importance of hand washing and attention to hygiene.
- Ensure all bathrooms are adequately stocked with sanitizing soap and hand towels. These will be depleted rapidly by employees and will require replenishing more often than normal.
- Frequently wipe down bathroom faucet knobs and fixtures.
- Increase the frequency at which wastepaper is collected and disposed of.

**GENERAL SUPPLIES**

Obtain adequate stock of hygiene and sanitation supplies, such as:

- Neutral detergents (i.e., bleach)
- Disinfectants
- Hand sanitizer
- Disinfecting/sanitizing wipes
- Tissues
- Rubber gloves
- N95 face masks

**SUPPLY DISTRIBUTION**

Provide antibacterial hand washing solutions such as hand sanitizers and sanitary wipes in all common areas, such as:

- Central locations within work areas
- Break rooms
- Bathrooms
- Lobbies
- Copy rooms
- Cafeterias
- Waiting rooms
- Training rooms
- Outside elevators
- Loading docks
Building Systems

Because the virus is transmitted through droplets carrying the virus, the building system of concern is primarily Heating, Ventilation and Air Conditioning (HVAC).

NOTE:
Persons working on building systems can carry and transmit the virus. Therefore, FMs should require that all building system employees and contractors receive pandemic prevention training. Appropriate personal protective equipment should be made available.

HVAC

- HVAC systems should continue running, increasing the amount of outside air and reducing the amount of recirculated air. Alternatively, increase ventilation in the workplace by opening windows, if applicable.
- Increase the frequency at which air-handling device filters are replaced and implement a coil cleaning protocol to improve indoor air quality.
- Consider using HEPA air filters to improve air quality.

CLEANING AND DISINFECTING HVAC COILS

Because a building’s HVAC system continuously recirculates the air through coils, a significant risk exists for pathogens to take root deep within these coils. Coil cleaning needs to be performed periodically and routinely utilizing a process that makes it possible to penetrate entirely through the heat transfer coils resulting in delivering near perfect surface area coverage. This makes it possible to both remove these biofilms and kill any pathogens that may be present within the coils or underneath them.

Cleaning and disinfecting HVAC heat transfer coils is a proven approach to improving a facility’s indoor air quality and energy efficiency. This process and protocols must be designed to remove the biofilm growths that often form deep inside the coils of the HVAC system, thereby eliminating potential breeding areas for viruses, bacteria, and fungi.

The objective is to mitigate the potential risks of a building’s HVAC system being exposed to Coronavirus (COVID-19) and other pathogens. The process should be designed as follows:

- First, execute a deep clean to prepare the building and remove the existing biofilm and blockages within the coils using enzymes and disinfectants.
- Next, execute shorter follow up treatments every four to six weeks, depending on a building’s requirements.

It is recommended to use a hospital-type disinfectant, like the powerful disinfectant Chlorine Dioxide (CIO2), that is effective against human coronavirus (ATCC VR-740). CIO2 is a well-known and highly effective disinfectant used to kill viruses, bacteria, and fungi such as Coronavirus, Rhinovirus, Staphylococcus Aureus, and MRSA. The use of these disinfectants combined with enzymes creates a unique and effective formulation for removing biofilms ensuring the elimination of microbial growths while also improving the HVAC energy performance.

ALARMS

Assess your alarm notification process. Understand who receives alarms: which employees have access to HVAC system alarms? What if they get sick or are otherwise unavailable? What is the backup process – are backup personnel identified and notified? What if backup is not receiving the alarm? Where are passwords stored; who has access to them?

Power

While a pandemic is not expected to lead to power outages, a pandemic will impact power company staffing levels, and if an outage does occur, the response timeframe may be delayed.

Proactive testing of the stand-by generator will help ensure power availability to the site. Fuel levels in stand-by generators should be periodically checked, and tanks should be filled after each test.
Site Access Restrictions and Closure

- It may be appropriate to restrict visitors and other non-employees from entering facilities. Notify Site Security of all third-party service providers/vendors that are authorized access to the facility during a site closure or when access is restricted.

- If a site closure is deemed appropriate, coordinate the closure with Site Security, executive leadership, and corporate communications. Reduce misinformation and speculation by communicating with other company locations about the circumstances of the closure.

- Establish communications protocols for notifying employees when a building will be closed as well as re-opened.

- Identify any prerequisites to be met by employees and third-party service providers/vendors prior to entering closed or restricted access sites:
  - Medical evaluations
  - Vaccinations (if available)
  - Self-health assessment questionnaire
  - Personal protective equipment use

- Notify personnel and third-party service providers/vendors of any prerequisites prior to entering a closed or restricted site.

- Identify access control support that can be provided from remote locations.

- Ensure all entrances to the affected facility can be effectively secured. Access to the facility should come through the main entrance only.

- Direct all incoming and outgoing personnel through the main entrance of the facility to assist in access monitoring.

- Ensure documentation of all visitors and personnel into and out of the facility, including:
  - Name
  - Company
  - Time entered
  - Time exited
  - Completion of facility entrance prerequisites
Supply Chain Management
Verify or continue implementing:

1. Evaluate ongoing or potential supply shortages resulting from the pandemic
2. Evaluate the effects of transportation disruptions on the supply chain
3. Verify, as appropriate, excess stock of necessary supplies has been ordered, received, and stored in a secure location
4. Assess pandemic impacts to suppliers and estimate ongoing supply chain shortages
5. Identify alternate sources of critical supplies and services
6. Execute contracts with alternate suppliers
7. Establish arrangements for 24/7 communications with critical suppliers

Critical Vendor and Supplier Strategies
If a vendor, supplier, or contractor cannot provide support to the performance of a critical function, consider the following strategies:

- Alternate suppliers. Identify other third parties that can provide like products or services. Establish contracting mechanisms prior to a disruption to expedite the procurement process.

- Service-level agreements (SLAs). Negotiate or purchase acceptable service levels that may be invoked in the event of a disaster. SLAs may include 24/7 emergency communications, service priority, and minimum response times.

Vital Records Recovery
Options for recovering vital records depend upon the vital record storage strategy as implemented in the Planning/Preparedness Phase. These included:

- Off-site document storage
- Imaging
- Retrieval from document source or recipient
- Document recovery
Eventually the pandemic will pass, and life should return to normal or – more likely – it will be life as modified: The New Normal. During the pandemic response, FM senior staff should keep an eye on eventual recovery.

During the Recovery Phase, the organization will begin to relax the procedures and policies determined during the Planning/Preparation and Response Phases. Business practices will eventually return to normal. The Pandemic Team will develop and implement a Recovery Plan to return the company to normal working operations. Note that in some cases, a new or revised policy or process may become incorporated into normal company practices.

General Principles for Returning to Normal Operations

**Recommended Recovery Phase Actions**

- Monitor absences and concerns
- Prepare facilities/offices for return/reopening
- Return to normal staffing and workload
- Relax pandemic policies; return to normal company policies or modified policies
- Implement new employee pandemic prevention recommendations
- Implement Pandemic Response Action Plan recommendations
Six Readiness Essentials

1. Prepare the Building: cleaning plans, pre-return inspections, HVAC and Mechanicals checks

2. Prepare the Workforce: mitigating anxiety, policies for deciding who returns, employee communications

3. Control Access: protocols for safety and health checks, building reception, shipping and receiving, elevators, visitor policies

4. Create a Social Distancing Plan: decreasing density, schedule management, office traffic patterns

5. Reduce Touch Points and Increase Cleaning: open doors, clean desk policy, food plan, cleaning common areas

6. Communicate for Confidence: recognize the fear in returning, communicate transparently, listen and survey regularly

During the Planning/Preparation and Response phases, it was strongly recommended that Facility Managers and senior Facilities staff should maintain a log of events by date/time. In this log they should also record all processes that worked well and any that need correction. Also critical are any comments and suggestions for improvement.

During the Recovery phase, someone must be assigned to gather the pandemic paperwork generated and compile the improvement items and recommendations into a Post-Event Review Report and an Action Plan.

Issues to Consider/Monitor

- Monitor, assess, and follow federal and local government re-opening guidance. In several countries, re-opening of commerce, transportation, businesses, etc., will be implemented on a phase-in or transition-in basis. Your business may be on the initial re-entry list or perhaps the last-to-open list.

- Under government guidance, re-opening will most likely include phases (guidance that is applicable to a set of circumstances; guidelines become more relaxed as the phase increases) with gates (criteria that must be satisfied before moving on to the next phase). Again, monitor the government guidelines.

- A significant part of re-opening will most likely be facility disinfection. Not only will you need to do this, you may need local health department guidance, inspection, and certification. Determine and factor these into your recovery plans. Include strategies to accomplish this effort yourselves or via a third-party vendor.

- Another significant part of re-opening will most likely be employee testing for a period following re-opening. You may need local health department guidance, inspection, and certification. Determine and factor this into your recovery plans. Include plans to purchase test kits, analysis, and interpret results. Have policies in place for employees whose test results range from clean, to recovered, to infected.

- Social distancing will probably remain in place for an extended period after re-opening. Be able to provide masks, sanitizer, disinfecting wipes, etc. Post signs as appropriate.
MASK CONFUSION:
Consider this situation: Local government has lifted the facemask requirement. As staff and contractors report back to work, you notice the following in various areas and departments:

1. All staff still wear facemasks
2. Most staff wear facemasks, a few do not
3. A few staff wear facemasks, most do not
4. None of the staff wear facemasks

If all staff or no staff wear facemasks, consistency reigns and no difficulties should result. However, there may be a problem with the outliers in scenarios #2 and #3. In #2, the few might be considered reckless and viro-dangerous. They might be treated differently, criticized, and possibly shunned. In #3, those few who do wear facemasks may also be treated differently, criticized, and possibly shunned for fear they might have the virus. Consider if you are in a restaurant and all staff wear facemasks, you think it is a good sign of caution. If only one or two waiters wear a facemask, you may ask yourself “why only them?” This may also apply if some departments wear facemasks, but others do not.

Although this issue belongs in the Human Resources domain, it will impact your staff and contractors. FMs could require all contract cleaning staff or all cafeteria workers (for example) to wear facemasks for some duration. If that is your policy, you must so inform the organization – and later when you relax it.

Work with HR and your vendors; address this issue before staff return to work.

Actions

- Develop and follow a defined schedule to manage the return to normal operations. An example Facilities Recovery Plan Template is shown on the next page.
- All staff members and impacted tenants, contractors, etc., should be aware of the schedule. Still, be flexible and announce changes as necessary.
- Inform all branch offices of the return to normal schedule.
- Be very deliberate about returning to normal operations to enable supervisors to verify that functions can be performed effectively. Avoid the temptation to rush the process in order to restore normalcy; missteps will cause confusion.
- Maintain elevated staffing levels while returning to normal operations, during the transition period the FM staff may be performing functions using both normal and alternate processes.
- Validate that systems are fully functional before ceasing manual contingencies.
- Communicate appropriately, internally, and externally when return-to-normal operations are complete.
- Remind all FM employees to save hard copy records that are created during a system disruption. Records should be saved until data can be entered into appropriate systems.
### Example Facilities Recovery Plan Template

Modify/prioritize as needed. There may be more granular items under a given policy/action.

<table>
<thead>
<tr>
<th>POLICY/ACTION</th>
<th>TARGET DATE</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Building(s)</td>
<td></td>
<td></td>
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<tr>
<td>Security (site) established/operational</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Security (building) established/operational</td>
<td></td>
<td></td>
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<tr>
<td>Utilities inspected/operational</td>
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<tr>
<td>Fire/Life/Safety systems inspected/operational</td>
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<td></td>
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<tr>
<td>Buildings and areas disinfected/inspected</td>
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<tr>
<td>Work/common areas disinfected/inspected</td>
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<tr>
<td>HVAC system inspected/operational</td>
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<tr>
<td>Environmental systems inspected/operational</td>
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<tr>
<td>Janitorial services established/in place</td>
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<tr>
<td>Mail service returned to normal</td>
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<tr>
<td>Food service areas cleaned/inspected</td>
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<tr>
<td>Food service areas restocked and ready</td>
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<tr>
<td>Employee space allocated/restricted</td>
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<tr>
<td>Signs posted (Safety, social distancing, etc.)</td>
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<tr>
<td>Supplies restocked/available</td>
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<tr>
<td>Contractors available/in place</td>
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<tr>
<td>EMPLOYEES</td>
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<tr>
<td>Employee counseling available</td>
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<td>Employee testing available</td>
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<td>Social distancing policies developed</td>
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<td>Personal protection supplies/practices in place</td>
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<td>At-work policies verified/revised</td>
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<td>Work at home policies verified/revised</td>
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<td>Social distancing practices implemented</td>
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<td>Travel policy implemented</td>
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<td>Visitors policy implemented</td>
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<td>FACILITIES DEPARTMENT</td>
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<tr>
<td>Contact lists updated</td>
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<tr>
<td>Out-sourced functions available/in place</td>
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<tr>
<td>Facilities hotline in place</td>
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<tr>
<td>Web pages update schedule established</td>
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<tr>
<td>Vendors/supply chain re-established</td>
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<tr>
<td>Vital records secured/available</td>
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<tr>
<td>Supplies restocked/available</td>
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<tr>
<td>OTHERS TO BE DETERMINED</td>
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</table>
Building/Office Reopening Considerations

- Common areas and equipment have been thoroughly sanitized.
- Sanitation and hygiene supplies have been re-stocked.
- Normal FM functions that had been suspended are reinstated.
- Building occupants are informed of any new FM procedures that may impact them.
- Third-party vendors and suppliers have been notified regarding when normal operations will be resumed.
- Employees have been notified of the return to normal policies if special policies have been instituted.
- Support services are available for FM employees that are reluctant to travel after restrictions have been lifted; or other remote work options are available.
- FM managers should consider that employees may face long-term personal and family care issues that impact or limit work capacity.
- Counseling or other types of support should be made available to help FM employees overcome reluctance to return to the workplace.

Facility Department Recovery Actions

- Develop a building re-entry and recovery plan for each building/facility. You may have to set up a Facility Recovery Team to gather information, assess the situation, assign priorities, implement the plan, track completion status, and report successes, and problem areas.
- Consider setting up a facilities hotline, website, and social media account for employees to access the latest information on Facilities status and expectations.
- Assess the extent of damage to site operations.
- Evaluate staffing levels required to accomplish functions listed above. Adjust staffing schedules, as appropriate.
- Shift staffing levels from unaffected buildings, as necessary. Cease non-vital functions to free up staff, if required.
- Engage external support, as required.
- Contact essential service providers to determine availability or to request additional support. Contact alternate service providers, if necessary.
- Notify the Corporate FM staff - if applicable - of the situation (what happened, impacts, anticipated duration of the impacts). Request support, as appropriate.
- If necessary, establish an off-site location from which FM operations will be managed if the campus cannot be accessed. Use office space in an unaffected building on the campus, if available. Displace non-vital business functions, if necessary. Re-route telephone numbers to the alternate site.
- Inform all off-duty staff members of the situation and provide appropriate work instructions. Establish communications protocols to stay in contact with all staff members and to provide situation updates.
- If appropriate, communicate with campus tenants to provide basic situational information and instructions for receiving further updates. Assign tenant communications to an FM staff member, if appropriate.
- Update the Facilities hotline, website, and social media account messages on a periodic basis.
Site Safety and Security

- Notify office campus occupants if safety and/or security systems have been disrupted (coordinate communications with FM Director). Provide interim safety/security instructions. Institute necessary work restrictions. Post access control personnel to prevent entry into hazardous or unauthorized areas.
- Validate that critical safety and security technologies are working (systems, video surveillance, badge readers); request technical support, as necessary.
- Confirm that fire, security, and life safety monitoring capabilities are functioning properly and are manned by qualified personnel.
- Ensure personnel resources are available to provide necessary access control.
- Ensure safety programs are being adhered to throughout recovery activities.
- If requested, re-establish medical services at an off-site location, or engage contracted medical support.
- Initiate an incident log to track and record injuries and illnesses related to the event.
- Evaluate opportunities to adjust air handling and/or ventilation systems to improve air quality or to control the spread of contaminants.

Operations and Maintenance of Essential Building Systems

- Evaluate the status of commercial power; work with electrical contractor and public utilities to fix problems.
- Monitor the emergency standby generator(s) for proper functionality, fuel levels, load capacity, etc.
- Monitor HVAC systems for proper functionality. Coordinate with the Safety and Security Manager on HVAC adjustments necessary to improve health conditions.
- Validate that water, wastewater, and natural gas lines have not been damaged and are functioning properly.
- Confirm that building systems are working properly in controlled environments (data centers, server rooms, PBXs, clean rooms, etc.).

Pollution Control and Environmental Monitoring

Work with the Environment, Health and Safety staff to:

- Validate that air, water and solid/hazardous waste pollution control equipment and computer systems are functioning properly.
- If pollution control equipment is not functioning, coordinate with Operations to shut down or alter manufacturing processes.
- Inspect chemical and hazardous materials storage locations to ensure that spills, discharges, or emissions have not occurred.
- Notify proper agencies if monitoring lapses, permit violations, or reporting delays are anticipated.
- Issue communications if reporting process changes are necessary.
- Notify proper regulatory agencies if delays are anticipated.
- Continue reporting as soon as possible.
- Save records or evidence that relates to unusual emissions or discharges.

Alternate Work Location Support

- If appropriate, coordinate with building tenants to assist with identifying and leasing/purchasing alternate workspace. To the extent possible, utilize unoccupied campus workspace. (This support is usually limited to internal employees, not third-party tenants.) Identify a primary and an alternate contact for each tenant group or department. Communicate information about alternate workspace needs and relocation schedules with these contacts only.
- Assist in coordinating transportation and access to the alternate work location.
- Following workspace relocation, assign an FM staff member to monitor the group’s needs, and to provide updates regarding the move back to the normal work location.
Building Sanitation
▶ Coordinate with the Safety and Security Manager to evaluate special sanitation/custodial needs on the campus. Re-assign staff or contractors as needed.
▶ Evaluate the need for PPE or special supplies.
▶ Emphasize the sanitation of restrooms, cafeterias, training rooms, and other common areas.

Mail Services
▶ Identify an alternate site for mail collection and distribution. Notify USPS or other couriers of alternate location.
▶ Notify company management and building tenants of alternate mail processing procedures/instructions.
▶ As required by the nature of the event, initiate special mail handling procedures, such as:
  ✓ Use of PPE (protective gowns, rubber gloves, N95 masks, eye protection).
  ✓ Suspicious package identification, handling, and reporting.
  ✓ X-ray scanning of packages.

Branch Office Support Considerations
Work with the Environment, Health and Safety staff to:
▶ Notify FM departments at all branch offices of limitations or changes in corporate FM support capabilities, or changes in other Corporate FM procedures that impact branch offices.
▶ Provide Corporate FM support to branch offices including the functions listed below:
  ✓ Central security/fire/life safety monitoring and alarm response.
  ✓ Central monitoring of power and environmental conditions at data centers, server rooms, clean rooms, and other locations with sensitive equipment.
  ✓ Facility trouble reports and maintenance or repair dispatching.
  ✓ Liaison with commercial property agencies and/or landlords.
  ✓ Real estate sales and leasing services.
  ✓ Corporate EHS operations, expertise, data collection, and reporting.
  ✓ Site security and investigations staffing and operations.
  ✓ Employee communications (e.g., security alerts, facilities alerts, and travel advisories).
  ✓ Office furnishing, equipment, and hardware purchasing or leasing.
  ✓ Centralized FM contractor management and oversight.
Delayed/Stopped Capital or Construction Projects

Working with the appropriate departments, determine the status of capital or construction projects that were halted because of the pandemic. Departments may include engineering, construction, facilities, environment and health, finance, legal, operations, human resources, and communications. It is possible that local and state governments might need to be consulted. Each project will need a review as to its current status, what it will take to get the project started and moving, possible completion schedule, expected problems, and financial ramifications. For each project, develop a statement of justification for continuing, delaying, or even cancelling the project.

Post-Event Review and Action Plan

The pandemic will eventually pass. During the event you should start to prepare for the post-pandemic evaluation and future upgrades. Then after the event you need to conduct critiques, compile the Lessons Learned, develop the Action Plan, and upgrade the plans, facilities, and supplies, as determined. The chart below provides an outline of these tasks:

- Conduct In-Incident Reviews
- Conduct a Post-Incident Critique
- Gather All Relevant Documents and Files
- Conduct Individual Interviews
- Develop and Issue the Facilities Post-Pandemic Action Plan
- Update Plans, Procedures, Facilities, Supplies, etc.
- Prepare for The Next One

Pandemic Post Review Plan

<table>
<thead>
<tr>
<th>TASK</th>
<th>STATUS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CONDUCT IN-INCIDENT REVIEWS</strong></td>
<td>During the response, if the time and opportunity present themselves, talk with available individuals to discuss what is going well, what is not, and what improvements could/should be made. Document all comments.</td>
</tr>
<tr>
<td><strong>CONDUCT A POST-INCIDENT CRITIQUE</strong></td>
<td>Assemble participants to discuss what went well, what didn’t, and what improvements the organization can make. This can be one comprehensive meeting or several in-facility meetings, real or virtual. Document all comments.</td>
</tr>
<tr>
<td><strong>GATHER ALL RELEVANT DOCUMENTS AND FILES</strong></td>
<td>Assemble all relevant documents and files; include logs, ad-hoc procedures, communications, web pages, media statements, Twitter, and Facebook messages, etc.</td>
</tr>
<tr>
<td><strong>CONDUCT INDIVIDUAL INTERVIEWS</strong></td>
<td>Meet with selected participants/executives to obtain their perspectives on the pandemic response. Provide any relevant observations from the critique.</td>
</tr>
<tr>
<td><strong>DEVELOP AND ISSUE THE FACILITIES POST-PANDEMIC ACTION PLAN</strong></td>
<td>See the next page for a proposed format. Verify that each item has a responsible owner. First send it out for review, then issue it as a final document. Track each item’s status and completion.</td>
</tr>
<tr>
<td><strong>UPDATE PLANS, PROCEDURES, FACILITIES, SUPPLIES, ETC.</strong></td>
<td>Based upon the Action Plan, update all relevant/affected pandemic plans and procedures. Work with Business Continuity Team to update plans and incorporate lessons learned. Upgrade facilities and supplies as determined. Document and share your progress.</td>
</tr>
<tr>
<td><strong>PREPARE FOR THE NEXT ONE!</strong></td>
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## Pandemic Response Action Plan Template

**Report Date:** October 31, 2020

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APPENDICES

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## APPENDIX 1 – PANDEMIC RESOURCES

### Government Agencies

| RESOURCE                                                      | LINK                                                                 |
|                                                               |                                                                      |
| European Centre for Disease Prevention and Control            | https://www.ecdc.europa.eu/en                                        |
| Ministry of Health New Zealand                                | https://www.health.govt.nz/                                          |
| National Health Service UK                                   | https://www.nhs.uk/                                                 |
| WHO Influenza Information                                     | https://www.who.int/influenza/en/                                   |
| WHO Emergencies Information                                  | http://www.who.int/csr/disease/en/                                  |
### Government Agencies (continued)

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<td>US FEMA Response</td>
<td><a href="https://www.fema.gov/coronavirus">https://www.fema.gov/coronavirus</a></td>
</tr>
<tr>
<td>US State Department Travel Advisories</td>
<td><a href="https://travel.state.gov/content/travel/en/traveladvisories/traveladvisories.html/">https://travel.state.gov/content/travel/en/traveladvisories/traveladvisories.html/</a></td>
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## Related Associations

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<td>Association of Contingency Planners</td>
<td><a href="https://www.acp-international.com">https://www.acp-international.com</a></td>
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<tr>
<td>Association of Insurance and Risk Managers</td>
<td><a href="http://www.airmic.com">www.airmic.com</a></td>
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<tr>
<td>Continuity Insights</td>
<td><a href="http://www.ContinuityInsights.com">www.ContinuityInsights.com</a></td>
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<tr>
<td>The International Association for Disaster Preparedness and Response</td>
<td><a href="http://www.disasters.org">www.disasters.org</a></td>
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<tr>
<td>Disaster Recovery Institute International</td>
<td><a href="http://www.drii.org">www.drii.org</a></td>
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<td>Disaster Recovery Journal</td>
<td><a href="http://www.drj.com">www.drj.com</a></td>
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<td>National Emergency Management Association</td>
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<tr>
<td>National Fire Protection Association</td>
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<td>Risk Insurance Management Society</td>
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The following glossary is from https://www.tmc.edu/news/2020/03/covid-19-crisis-catalog-a-glossary-of-terms/. The information source, the Texas Medical Center, encourages users to check back regularly for updates.

**APPENDIX 2 – GLOSSARY OF TERMS**

Asymptomatic: presenting no symptoms of disease. In the case of COVID-19, this means absence of fever, dry cough, sore throat, shortness of breath and body aches, among other less common symptoms. Notably, it is recommended that individuals do not get tested unless they exhibit symptoms, because of the risk of false negatives. In other words, most tests will not be accurate unless symptoms are present.

Case fatality rate: the ratio of deaths from COVID-19 to the total number of individuals diagnosed with the disease.

Clinical trial: research experiments on human participants designed to answer questions about new treatments; in the case of COVID-19 and coronaviruses, the safety and efficacy of a potential vaccine.

Community spread: the spread of a contagious disease in a geographic area in which there is no knowledge of how someone contracted the disease. In other words, no known contact can be traced to other infected individuals.

Confirmed positive case: in contrast to a presumptive positive case, this is confirmation from the Centers for Disease Control and Prevention (CDC) of a positive COVID-19 test in an individual.

Contact tracing: identifying and monitoring people who may have come into contact with an infectious person. In the case of COVID-19, monitoring usually involves self-quarantine as an effort to control the spread of disease.

Coronavirus: a family of viruses that include SARS (severe acute respiratory syndrome) and MERS (Middle East respiratory syndrome) as well as other respiratory illnesses. A coronavirus, also known as a CoV, is typically spread between animals and humans – an event known as zoonotic transfer – and they are named for the term “corona” – Latin for crown – which refers to the shape of the virus when observed microscopically.

COVID-19: COVID-19 stands for novel coronavirus disease 2019, which refers to the year of its initial detection. COVID-19 is the illness related to the current pandemic; the illness is caused by the virus SARS-CoV-2 (severe acute respiratory syndrome coronavirus 2).

Epidemic: a widespread occurrence of an infectious disease in a community or geographic area.

Epidemiology: a branch of medicine which deals largely with public health, including the incidence, distribution, analysis and control of diseases.

Flattening the curve: an attempt to create a more gradual uptick of cases, rather than a steep rise, in an effort to avoid overburdening the health care system all at once. Notably, “flattening the curve” does not necessarily decrease the projected number of cases, but spreads them out over a period of time.
**Immunosuppressed**: an individual who experiences reduced efficacy of the immune system as a result of health conditions not related to COVID-19 disease. People who are immunosuppressed are at greater risk for hospitalization and severe sickness from the SARS-CoV-2 virus.

**Incubation period**: the time between when an individual is first exposed to the virus and the appearance of symptoms. A person’s level of contagion before symptoms arise is not known, although most experts believe people are most contagious after they begin exhibiting symptoms.

**Index case**: the first documented case of an infectious disease.

**Index patient**: the first person infected with a disease in an epidemic. Interchangeable with the term “patient zero.”

**Lockdown**: an emergency measure in which individuals are restricted from certain areas in an attempt to control exposure or transmission of disease. In a lockdown during an epidemic, individuals are encouraged to stay home.

**National emergency**: a state of emergency resulting from the global threat of the pandemic. On March 13, 2020, President Trump issued a national emergency concerning the COVID-19 outbreak, which allowed for loosened restrictions on tele-health, as well as certain requirements for hospitals and health care providers to allow them to respond to the crisis.

**Novel coronavirus**: a new strain of coronavirus, or nCoV, that has never been detected in humans.

**Pandemic**: a worldwide spread of an infectious disease, with larger reach than an epidemic. Until COVID-19, the last pandemic was the H1N1 influenza outbreak in 2009.

**Patient zero**: the first individual infected with a disease during an epidemic.

**Person to person transmission**: when a virus is spread between people, including physical contact or coughing and sneezing. This is in contrast to when a virus is spread via animals or through contaminated objects or surfaces.

**PPE**: personal protective equipment, or PPE, is specialized clothing and equipment used as a safeguard against health hazards including exposure to infectious diseases through physical contact or airborne particles. PPE is designed to protect parts of the body typically exposed in normal attire, including the nose, mouth, eyes, hands and feet. Notably, N95 respirators are considered ideal for health care workers who may be exposed to SARS-CoV-2.

**Presumptive positive case**: an individual who has tested positive for COVID-19 by a local public health lab, but whose results are awaiting confirmation from the CDC.

**PUI**: person under investigation, or a PUI, is an individual who is suspected of potentially having COVID-19.

**Respirator**: a device designed to protect individuals from inhaling something hazardous in the air, in this case, particulate that may be contaminated with the SARS-CoV-2 virus.

**SARS-CoV2**: the virus fully defined as “severe acute respiratory syndrome coronavirus 2” causes the disease COVID-19.
**Screening**: the act of verifying symptoms and potential exposure before testing for the virus.

**Self-isolation**: the act of separating oneself from others.

**Self-quarantine**: the act of refraining from any contact with other individuals for a period of time – in the case of COVID-19, two weeks – to observe whether any symptoms of the disease will arise after potential exposure.

**Shelter-in-place**: typically issued by local government, a shelter-in-place asks residents to remain at home and only leave to perform duties deemed essential in an effort to slow transmission of and exposure to the virus.

**Social distancing**: the act of remaining physically apart in an effort to stem transmission of COVID-19. Social distancing can include a move to remote work, the cancellation of events and remaining at least six feet away from other individuals.

**Super-spreader**: a highly contagious individual who can spread an infectious disease to a large number of uninfected people through a network of contacts.

**Symptomatic**: showing symptoms of COVID-19, which can include a fever, dry cough, shortness of breath and body aches. Health officials believe the risk of transmitting the virus is highest when an individual is symptomatic.

**Vaccine**: a biological preparation of organisms that provides immunity to a particular infectious disease. Currently, there is no vaccine for COVID-19.

**Ventilator**: a machine designed to move air in and out of the lungs for a patient who is physically unable to breathe or who is not breathing well. Because COVID-19 can cause severe lower respiratory infection, ventilators are a critical machine for patients with severe disease.
By Kate Lister, President, Global Workplace Analytics

Introduction

According to the Society for Human Resource Management (SHRM), nearly 70 percent of companies say they offer remote work.¹ Bureau of Labor Statistics (BLS) data however show only 7 percent offer it to all or most of their people.² In many organizations, remote work has just sort of happened, rather than been made to happen.

Remote work – often called Work from Home (WFH) – is frequently adopted as a tactical solution to an immediate problem. Human Resources launches it as a tactic to address labor or talent shortages. Real estate/FM launches it to reduce office space. Sustainability launches it as a way to reduce the organization’s carbon footprint. The problem with these bottom-up initiatives is that they rarely get the support of the C-suite. The COVID-19 pandemic has exposed the flaws in this approach.

A month into the sudden work-from-home experiment, over half of global CFOs said their organization didn’t have the remote work capabilities they needed to maintain productivity.³ Their people didn’t have the tools, technology, or training they needed to be effective. Managers weren’t comfortable managing people they couldn’t see. Policies and practices were not in place to answer the many questions that arose.

The global pandemic has made remote work a C-suite imperative. This will galvanize HR, IT, CRE, FM, Sustainability, Risk Management, and other functional areas in a common resolve to be better prepared for the next crisis. The following insights into the role each functional area plays in remote work are intended to open minds, foster collaboration, and build alliances that will vastly improve people and profit results. An added benefit is that it is good for our planet.

---

¹ Leave and Flexible Working – SHRM Employee Benefits 2019, June 2019
² Bureau of Labor Statistics 2019
Human Resources

Human Resources (HR) should provide workforce insights, guide the creation of remote work policies and practices, ensure employees and managers have the tools and training they need to do their best work, address organizational culture issues, coordinate change management, protect employee privacy, and monitor compliance.

Workforce Insights

HR can provide insights to inform other functional areas about:

- How and where people are working
- Workforce growth/retraction plans
- What people need to be successful
- How people are evaluated
- Workspace assignments
- Manager and employee readiness
- Pre- and post-change trends in:
  - Employee engagement
  - Attraction and retention
  - Absenteeism/presenteeism
  - Health and wellness
  - Productivity

Remote Work Policies and Practices

Remote work rules and standards are important because they specify, on the record, what is and is not acceptable. HR should formalize remote work policies and remote worker agreements to address:

- Working hours
- Remote work frequency
- Expectations for employee availability, response time, check-ins
- Employer rights to require, deny, or terminate remote work arrangements
- A manager’s right to deny or terminate remote work
- Criteria for decision making about who can and cannot work remotely
- Employee rights to request, refuse, or discontinue remote work
- Remote work locations allowed (i.e. home, co-working, public spaces, while traveling)
- Minimum internet speed
- Dependent care requirements
- Ergonomic and safety standards
- Meeting protocols:
  - Noise (i.e. pets, children)
  - Use of video
  - Recorded meetings
  - Video/audio hygiene (i.e. chewing, attire)
- Whether employees are required to have a dedicated home office
- Who pays for home office equipment, services, and supplies
- If a lockable storage area is needed
- The extent to which home office incidents are covered by Workers Compensation
- Whether home office insurance is required (and who pays for it)
- Accommodations for disabilities
- Security and safety requirements

HR SHOULD CONSIDER:

- How to help remote (and onsite) workers with the mental health impact of the crisis
- What metrics you will use for success of your remote work program and for individual performance? Where will the data come from? Who will have access to it?
- How you will ensure salary, compensation, and promotability are not affected by remote work
- What employees are expected to do to remain productive in the event of a home emergency (i.e. fire, loss of power)
- Whether you will feature remote work options in your talent attraction strategy
- How remote work can impact diversity and inclusion
- Special on-boarding needs for remote employees
Training

HR is central to the development, delivery, and tracking of employee training. In the context of remote work, this should include training in:

▶ Managing remote workers
▶ Setting goals and measuring results
▶ Remote communications protocols, practices, and etiquette
▶ Remote collaboration
▶ Technology and security
▶ Remote work effectiveness and productivity
▶ Managing work-life and life-work conflict
▶ Remote work policies and practices
▶ Remote work safety
▶ Building trust in remote teams
▶ Dealing with loneliness
▶ Working with in-office colleagues

Home/Mobile Office Provisioning

HR and IT must work together to ensure remote employees have the tools they need to be successful. They must also work collaboratively to standardize home or mobile office provisioning. Only about a quarter of employers pay for home office equipment or services though this trend has vacillated over the years. It is more common for the employer to pay when employees are required to work remotely rather than opting to do so or when the employer requires the use a particular kind of equipment. Home office expenses can include:

▶ Computer/tablet
▶ Docking station
▶ Monitor(s)
▶ Keyboard/mouse
▶ Desk
▶ Chair
▶ Webcam/headphones
▶ Routers

▶ Mobile technology
▶ Software
▶ Internet access
▶ Office supplies
▶ Home energy
▶ International phone calls

Methods of cost-sharing include:

▶ Stipend (typically $500-$1,500)
▶ Full or partial reimbursement
▶ Access to employer-buying discount
▶ Provisioning with on-site inventory
▶ Purchase by employer

HR SHOULD CONSIDER:

▶ The trade-off between cost-savings and productivity. Often the potential for increased productivity from a faster laptop or dual monitors far outweighs their cost. Likewise, the cost of a good office chair is far less than a worker's compensation claim.
▶ What evidence will you require for reimbursement or use of your stipend?
▶ How will you track employer-owned items?
▶ What standards of care will you impose for them?
▶ Whether you will want employer-owned items brought back in the office? If so, what cleaning protocols will you use to ensure they are safe?
▶ Whether employees will be allowed to use employee-owned items for personal use?
▶ Whether you have the right to retrieve items from employee's home if you need to?
Change Management

Effective change management is critical to the successful transition to remote work and related workspace changes. HR should be central to change management. Often, they will work in tandem with an external change management team during the initial transition but take a primary role as programs are expanded throughout the organization.

Organizational Culture

One of the difficulties organizations have with remote work is maintaining a sense of culture as the program grows. Pre-emptively, HR can identify best practices for keeping the cultural connection with a remote workforce and work with IT, Communications, and others to deploy solutions and continually measure results.

Employee Rights

HR is also responsible for protecting workers’ rights including the right to privacy. This can sometimes lead to friction between themselves and CRE/FM who want people metrics to plan space changes and measure the effectiveness of workplace initiatives. IT and HR may find similar conflicts. It is important that functional areas work to understand one another’s needs and responsibilities and cooperate in developing solutions. In particular, HR should be involved in any plans that could expose personally identifiable information including the growing trend in the use of:

- Sensor data
- Keystroke, video, or computer/online activity monitoring
- Social network analysis
- VPN tracking

Legal and Taxation Issues

Many of the labor laws, workers compensation rules, tax laws, and a number of other regulatory requirements vary by country, state/province, or city/town. If employees are allowed to work-from-home or anywhere, HR needs to ensure compliance with local jurisdictions. A single employee spending even as little as one day in another area can:

- Require the employer to be registered in that region
- Subject the employer and employee to additional income taxes
- Require compliance with local labor laws and worker’s compensation standards
- Constitute a nexus and expose the employer to sales tax from which they were formerly exempted
- Require employers to track the amount of time employees spend in other regions
- Subject employers to different rules for classifying employees as exempt, non-exempt, contractors, or employees

HR SHOULD CONSIDER:

- If an employee is required to work from home by their employer or their home is designated as their primary place of work, it can render commuting and travel time compensable.
- Whether employees who are based at home or scheduled to be home during an emergency closure (i.e. snowstorm, hurricane) will be expected to work
- Whether you will monitor/enforce working hours: If for example a non-exempt employee works outside of normal hours, perhaps they just answer an email, it could trigger overtime compensation
- How to ensure working from home does not violate any local laws or housing regulations
Information Technology

Information Technology (IT) provides the technology infrastructure needed to support remote work, develops and implements data security protocols, and works with the business units to ensure they are equipped with tools and technologies they need to be effective wherever they work.

Remote work effectiveness requires a combination of onsite and offsite software and hardware. Requirements will vary between and within organizations but in general, remote employees will need a combination of hardware and software including:

**Hardware**

- Laptop, desktop or tablet
- Keyboard
- Docking station
- Monitor(s)
- Mobile phone/softphone

**IT SHOULD CONSIDER:**

- Whether to allow employees to use their own equipment or mandate a particular kind
- Where employees will go for technical support
- How will equipment repairs be handled
Software/Access/Communications

- Application software
- Security software
- Remote access to files
- File sharing tools/platforms
- Cloud storage
- Video conference tools
- Teleconference tools
- Data/file back-up
- Removable media

**IT SHOULD CONSIDER:**

- How software updates will be performed
- How potentially harmful downloads will be prevented
- How remote workers will deal with technology problems
- Whether your VPN has the capacity to support a large number of people working remotely or is able to quickly scale up or down
- If your file permissions will need to change
- Whether your employees know their passwords and how to reset them
- If you need and have the authority/ability to remotely wipe hardware
- Whether you want/need and have the right to track employee activity, location, listen to conversations, monitor social media, record video

Onsite Tools

The majority of organizations use a mix of remote and on-site work. In some cases, all-remote workers will regularly interact with on-site workers. To guarantee the effectiveness of these interactions, IT should ensure:

- Video-conference hardware and software is easy to use
- Conference and meeting rooms offer simple plug-and-play compatibility with a wide range of hardware and sharing platforms
- Video displays offer good fidelity and are positioned for maximum visibility
- Sound and video quality is excellent for both those in the room and remote
- Cables and power cords/outlets are accessible, but as out of sight and do not represent a trip-hazard
- High-speed broadband is available
- Technical support is available during meetings
Corporate Real Estate/Facility Management

Corporate real estate (CRE) and facility managers (FM) are responsible for the integration and optimization of remote and onsite workplace strategies. This includes:

▶ Evaluating current and future space needs in light of remote work
▶ Evaluating opportunities for changes to existing leases
▶ Optimizing space usage
▶ Determining what space changes are needed to support a hybrid workforce
▶ Managing workplace change
▶ Informing the change management process
▶ Providing places and spaces for remote workers when they are onsite
▶ Providing effective spaces for onsite collaboration with remote workers
▶ Developing space standards, protocols, and practices
▶ Collecting and analyzing workplace data
▶ Tracking employer-owned assets assigned to remote workers
▶ Ensuring workplace safety and security

CRE/FM SHOULD CONSIDER:

▶ Social distancing implications if a large number of remote workers are required onsite
▶ Ways to make remote workers feel welcome when they are onsite
▶ Making wayfinding easy
▶ Standards for assigned versus unassigned seating for hybrid remote workers
▶ Protocols for keyboard and space sharing
▶ The need to track where remote workers may have traveled from
▶ App, kiosk, or desktop space reservations
▶ Making remote workers aware of onsite space and social distancing etiquette
Risk Management

COVID-19 showed just how much being unprepared for remote work can cost an organization in lost productivity and profits. Risk Management (RM) will be a strong ally in strategies that improve resilience in the future. In addition to their role in emergency preparedness, Risk Management plays a vital role in evaluating the implications of remote work on health and safety, information security, insurance needs, brand reputation, and more.

RM SHOULD CONSIDER:

- How to ensure ergonomic and home-office safety:
  - The most common method is self-certification following training
  - Remote inspection via video is another option but doing so may shift the burden of responsibility from the employee to the employer
  - Physical inspection of a home office is not common as it can open employers up to a wide range of legal exposures
- Insurance implications due to reduced employee driving, travel, and fleet usage
- The cost/benefit of home ergonomic solutions versus medical claims
- Legal implications of another outbreak after employees return to the office
- How to deal with location-based licensing requirements in legal, medical, and other roles that require professional certification
Sustainability

Sustainability and Governance can help leadership understand the importance of the impact that reducing greenhouse gas emissions, preserving non-renewable resources, and adopting positive people practices can have on an organization’s reputation, brand, and ability to attract capital.

SUSTAINABILITY SHOULD CONSIDER:

▶ How to measure the impact of remote work on energy consumption, emissions, and resource utilization
▶ Using remote work to reduce Scope 3 emissions (which include commuter travel)
▶ Ways to improve onsite sustainability because of reduced space needs
▶ The extent to which video-conferencing will reduce business travel
▶ How to measure the increased use of home office energy and new driving for errands that used to be done during the commute
▶ A possible reduction in car/vanpool and public transportation usage due to fear of transmission
Marketing and Communications

Proper communications can play a big role in the success of change management and in reducing fears about returning to work. Marketing and Communications are the pros at this. Bring them in early to help craft onsite and digital messaging.

**MARKETING AND COMMUNICATIONS SHOULD CONSIDER:**

- When and how to begin back-to-work messaging
- Communications to address employee fears around social distancing, public transportation, cluster point around entrances, elevators, dining areas, etc.
- How to make the digital experience rich with culture and brand messaging

Finance

Finance is responsible for the planning, management, and distribution of funds. As with any investment, they will expect a good business case for remote work, numbers to show the potential impact, and metrics by which investment in it will be evaluated. A wealth of research on remote work points to a return on investment from:

- A reduction in real estate and related costs
- Increased employee productivity
- Reduced employee turnover
- Reduced absenteeism and presenteeism
- Greater emergency preparedness

In total as a result of the factors above, a typical U.S. employer can expect to save about $11,000 per half-time remote worker per year. Additional financial impacts can be realized from:

- Increased employee engagement
- Reduced need for parking facilities or reimbursements
- Improved employee health due to lower stress, better diet, and increased exercise

Work together across business units to make a compelling case for the ROI of remote work and you will find a partner in Finance.

External Advisors

You don’t have to do this alone. Best practices honed from years of trial and error can make your journey to remote work easier. External advisors can be a valuable part of your team. These might include workplace strategists from architectural and design firms, real estate brokerage firms, management consulting firms, furniture manufacturers, and specialty remote work advisories.

The right team of professionals, working in tandem with internal stakeholders, will help create an integrated workplace strategy that will optimize results based on your unique culture, readiness, economic realities, goals, and more.

Conclusion

For many, the COVID-19 crisis has forced them to work from home without the tools, technologies, training, and resources needed to be successful. Entire companies have had to do, practically overnight, what many organizations spend months and even years transitioning toward.

Just weeks into the pandemic, the Chief Human Resource Officer of Twitter said, “I don’t think we’ll go back to the same way we used to operate.” The CEO of Goldman Sachs said, “When you go through something like this, it forces you to ask questions and think about things differently.” He went on to say he felt the experience would make his company more comfortable with workplace flexibility in the future.

This is a wake-up call for HR, CRE/FM, IT and many other organizational areas. Now is the time work together toward a better future for employers, employees, and the planet.

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4 Global Workplace Analytics, Remote Work Savings Calculator
5 CNBC.com, April 3, 2020
Introduction

In 1976, Ebola was identified as a lethal disease; in 2014 its latest outbreak occurred. In 2002 the first SARS outbreak occurred. The H1N1, or “swine flu” pandemic swept the United States in two waves in spring and fall 2009, and was the first global pandemic declared in more than 40 years by the World Health Organization. The WHO lists a large set of pandemic diseases. In other words, the threat of a next global health crisis will not recede after COVID-19.

Among the lessons to be learned from this year’s COVID-19 pandemic is the need to prepare well for a future outbreak. Preparedness will be a key concern for organizations as well as governments, since it will contribute to our resilience to cope with such an outbreak. Based on observations around the COVID-19 response, we believe there are credible and tangible ways in which facility managers can better prepare for a future event. In preparing as well as execution of those measures, IWMS systems play a pivotal role.

Preparing and responding to these types of situations requires coordination among many functions in the field of real estate and facility management. Planning of responses as well as the coordinated execution of them is at the core of this approach. This is why we named this concept COMs; a systematic approach to Coordinated Outbreak Management.
Analyzing the Contamination Challenge

COVID-19 started in a single location – Wuhan, China – and over the next few months spread to other areas of the world, probably provoked by international travel.

Governments and organizations of all types are working towards one objective: eliminating the COVID-19 contamination and its threat to public health.

Analyzing the events around the outbreak, Dr. Marie Puybaraud, expects that societal resilience measures will have to structurally remain. In that context, she speaks of ‘fast data’: data to be gathered around actual developments happening and using it at almost-real-time to respond to the situation as emerging to effectively control it.

Around COVID-19, contamination information as provided by news media was already fairly detailed and one can expect this to be improved even as time moves on.

The RE and FM Aspect of Outbreak Management

Buildings and facility management services exist to enable organizations to function and operate, allow people to work and collaborate, provide places for trading, shopping and leisure. In short, RE and FM itself operates places where people come together, interact and hence are vulnerable to contamination. These places largely were designed to support high occupancy levels, meaning close physical proximity of occupants, and a common metric of efficiency has had to do with how many people inhabit a unit area.

This puts forward the requirement for FM to contribute to managing outbreak incidents as effectively as possible. When done in appropriate ways, FM also contributes to the level of resilience of their organizations, enabling those organizations to function to the best degree possible amidst various contamination situations.

There are good playbooks being published; many organizations provide advice on how to deal with this COVID-19 situation. It has become apparent that there does not exist one ‘silver bullet’ approach to handle these types of emergencies. Handling these type of situations calls for effective collaboration between societal and business functions.

Real estate and facility management by its definition already encompasses a wide range of activities. This implies that orchestration of the RE and FM activities in view of handling outbreak situations will provide for better and more effective responses.

This article puts forward a framework to organize orchestrated responses, enabling each organization to embrace those measures it perceives as effective.

The idea is to implement the full COMs setup in an Integrated Workplace Management Systems (IWMS)/Computer-Aided Facility Management (CAFM) type of environment, allowing not only for appropriate planning but also providing the systems support when it must be executed.

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1 Global Head of Research at JLL Corporate Solutions
2 See for instance: https://playbook.lear.com/Safe%20Work%20Playbook%202nd%20Edition.pdf as provided via IFMA, but there are many more
3 We called this framework COMs: a systematic approach to Coordinated Outbreak Management.
The COMs Principles

The core of this concept lies in the general pattern of contamination related incidents. The problem of contamination is in principle a regional issue and it is of a temporary nature.

We see two simple starting points:

1. We do not need to always operate in ‘emergency mode’: when there is no eminent risk of outbreak, organizations will focus on efficiency in their operations.

2. On a global level, regions experience fundamentally different levels of risk of involvement as the situation evolves.

The core principle behind COMs is to enable organizations to ‘switch between operational modes’ quickly and effectively as a response to contamination risk profiles changing over time.\(^9\)

1. The properties of the ‘operational modes’ necessary to effectively address contamination risk profiles.

2. The activities that need to be executed in order to switch between those operating modes (what), as well as the end organizational units involved with it (who).

These two elements effectively construct a full script of responses, describing how to manage various stages of emergency.

Note that the model depicted serves as an example only.

Based on the type of organization, type of facility or location of the facility, alternative operating modes can be required and hence defined.

Note that this concept in principle includes activities for all RE and FM related functions. It allows for orchestration of the responses of those various functions by linking them in sequencing and timing so that their combined effect is maximized.

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\(^9\) It is based on proven governmental practices: see GRIP, a (Dutch) government practice for regional incident management.
Operating Modes

COMs Operating Modes are only to be defined related to contamination risk management. It is certainly not necessary to describe practical daily operations in general here. However, each Operating Mode will include instructions on how to be prepared for a transition to a next possible Operating Mode. That transition is implemented by a set of activities as described in the protocol setup for it.

This principle posits that all elements are in place in one Operating Mode to allow the organization to swiftly move to another Operating Mode: it must be possible to be done quickly.

As an example of implementation, the Operating Modes as pictured are briefly discussed.

COMS-1: NORMAL OPERATIONS

This is the ‘normal’. In this mode, there is no threat in the region identified and no extraordinary risk for business continuity in view of spreading of a disease.

COMS-2: RESPONSE PREPARATION

In this mode, a potential threat of contamination is identified, although not yet imminent. The risk of contamination occurring is however at such levels that preparations are in order to enable response practices to be invoked to reduce contamination risk. Decisions to go into this mode will factor in the estimated risk and the estimated damage if contamination were to take place (risk * effect). In this Operating Mode, investments will be made or prepared for to allow the organization to respond fast if necessary – prepare to move away from normal operations.

This implies that review and validation of the protocols in place in view of a specific incident should be undertaken at this stage. In other words: “is the plan at hand appropriate in view of what we know today, or should we make adjustments to our existing protocols?” Additionally, one would typically inform those who need to be involved that activities are imminent.

COMS-3: OPERATIONS UNDER POTENTIAL CONTAMINATION THREAT

In this mode, actual contamination still is some distance from the facility. Operations are adjusted to not only limit contamination risk but also are set to respond to actual contamination taking place close by, potentially harming organizational units. In this Operating Mode, the organization and its workforce will typically experience different regulations for them to attune to, experience modified workplace settings and so forth. Tighter access controls and limits on seating density are examples of measures that may be implemented in this stage.

COMS-4: OPERATIONS UNDER IMMEDIATE CONTAMINATION THREAT

In this mode, actual contamination has been identified in the direct environment of the facility. In addition to prevention, we are now addressing responses to actual cases of contamination.

COMS PROTOCOLS

The transitional protocols are defined sets of activities that will need to be deployed in order for the organization to arrive at a different Operating Mode. Activities are listed, procedures are explained and assigned to named people in various functions.

In most cases, sequencing of activities, as well as dependencies, should be described. For example, decontamination supplies may need to be transferred from a storage facility to occupied facilities before cleaning staff can begin an enhanced decontamination protocol.

The execution of a protocol can be managed as a project, including reporting to the organization.

ESCALATION PROTOCOLS

A fundamental complexity in times of contamination threat is that one needs to determine what to do, provide guidance on effective execution, act rapidly and in appropriate sequences, and involve the relevant players. This is the kernel of the Escalation Protocols. The escalation protocols describe a series of response activities that need to be executed for the organization to arrive at a higher level Operating Mode.

RESPONSE PRACTICES

Response practices represent the granular activities to be executed (tasks). On execution, they are assigned to individuals and time slots for their activities are defined.

DE-ESCALATION PROTOCOLS

As one has escalation protocols, one has de-escalation protocols as well. These are not necessarily the reverse of escalation but also describe activities (tasks) to be executed, messaging to the organization and so forth.
**Invoking COMs Escalations and De-Escalations at Regional Scale**

COMs escalations would generally be launched locally, at only those sites where tangible risk is emerging or imminent.

De-escalations also can be executed at individual sites where risks have subsided.

This represents an important portfolio-level approach that will enable a degree of resilience for organizations that are spread around the world: escalating only in pockets where and when the need emerges, and then de-escalating in those locations as soon as it is safe to do so.

**Key Role of IWMS**

As every organization experiences churn in the workforce over time, the knowledge and approach in responding to imminent contamination risk should be maintained in a system that can assist in execution when needed. Integrated Workplace Management Systems or Computer-Aided Facility Management systems are well-suited to serve that purpose.

These systems are developed to capture data about all properties, assets, staff, processes, instructions and procedures required. Using the systems’ capabilities in providing oversight of activities and procedures at any time, the response team would be able to track progress and understand dependencies between individual responses. Because these systems are both data repositories and process management tools, they provide a single environment in which all of the information needed to execute an escalation or de-escalation can be maintained and updated as circumstances change. Generally, these systems also provide the ability to store documents related to properties, assets and processes. Further, they typically feature automated linkages to other business systems, such as human resources and procurement, to ensure that external data that will need to be utilized – such as employee lists, contact information and vendor details – is up to date at whatever moment the need to invoke an escalation occurs, without the need for last minute manual data updates.

The approach outlined here builds on hypothetical scenarios, which in many cases can be mapped as workflows in IWMS or CAFM systems and may be invoked through a “switch” – manual or automatic – based on events and circumstances. Thus, the technology becomes a key safeguard for organizations seeking to prepare against the eventuality of a crisis.

Note that the procedures as defined may well be ‘localized’ per site (building) because of differences in the type of activity taking place in those facilities (production, offices, research, patient care, etc.) as well as the properties of their surroundings. Again, a technology system should be able to capture these building-by-building variations and provide clarity for the escalation procedures to the operations, maintenance and workplace strategy teams.
Simple Use Cases

To illustrate the approach, some simple protocol-based use cases are described here – using the structure depicted in figure 1 – for a typical office-type of facility. The examples are not meant to be a complete picture of the escalation/de-escalation cycle, but to highlight key principles.

Although protocols for individual escalations are described separately here, one can of course decide to combine escalations based on the situation: for instance, one could decide to move from COMs 2 immediately into COMs 4. The actual situation as it evolves will drive decisions of this kind.

**COMS 1-2: NORMAL-TO-RESPONSE PREPARATION**

*Response 1-2.0: Review the COMs Program*

Review the full COMs program as in place, adding responses that are not there but deemed necessary in view of the current circumstances, the threat, and the properties of the specific contamination.

*Response 1-2.1: Identify Team Involved*

Checking the activities to take place in this stage as well as in the COMs 2-3 protocol, identify all individuals involved and send them a message to alert them that their services will be called upon. Identify the responses they will individually be assigned to.

*Response 1-2.2: Inform Business Management Team*

Send message to HRM and business management for the staff operating in the facility to inform them of activities to be deployed over the coming period, and to inform them of contacts to reach out to in case of issues and questions.

*Response 1-2.3: Inform Workforce*

Send message to the occupants of the facility to inform them of activities to be deployed over the coming period, provide contacts in case of issues and questions, and provide websites where information can be found.

*Response 1-2.4: Arrange Necessary Budgets*

Make sure the response budgets are set and individuals are allowed to incur expenses for goods and activities as stated in the plan.

*Response 1-2.5: Assess Needs for Supplies*

Prepare to elevate the strategic stock level of (sanitizing) supplies and other protective materials likely to be needed in case of further escalation.

*Response 1-2.6: Involve Suppliers*

Notify the various suppliers of the activities taking place or perhaps imminent, discussing the expected contributions from them.

*Response 1-2.7: Identify Workplace Shutdowns*

Review the workplace facilities currently in use and denote the ones that could be closed in case of escalation.

*Response 1-2.8: Prepare to Expand Working From Home*

Contact HRM for services to be provided around homes and other distant workplaces. Contract services with DHL to transport stuff when necessary.

*Response 1-2.9: Identify High-Touch Points*

Identify assets and other building elements that are high-touch and may need to be cleaned differently upon escalation.

*Response 1-2.10: Additional Steps*

As needed.
COMS 3-4: POTENTIAL CONTAMINATION THREAT TO IMMEDIATE CONTAMINATION THREAT

Response 3-4.1: Inform the Organization
Send message to the full workforce on the escalation, outlining the most visible and important changes in workplace and facility operations.

Response 3-4.2: Evacuate Facility
Inform the workforce that the facility is closed and only those with specific permits will be allowed in.
All workplace and meeting space reservations are cancelled, and organizers informed.

Response 3-4.3: Reset Climate Controlling
Shift climate systems to ‘weekend-mode’.

Response 3-4.4: Cancel Workforce Services
Cancel all personnel services (like catering) and shift cleaning to the appropriate protocols.

Response 3-4.5: Asset Maintenance Adjustments
Review planned activities and cancel where necessary, but also shift forward activities that can leverage the vacancy and can be executed safely.

COMS 4-3: DE-ESCALATE FROM IMMEDIATE CONTAMINATION THREAT TO POTENTIAL CONTAMINATION THREAT

Response 4-3.1: Inform the Organization
Prepare and stage the teams of the workforce to return to the facility. Identify which teams will be prioritized to return and in what pace and order.

Response 4-3.2: Inform the Organization
Send message to the full workforce on the de-escalation, outlining the most visible and important changes to expect and communications around it.

Response 4-3.3: Reset Climate Controlling
Arrange for climate systems to be shifted to ‘normal’.

Response 4-3.4: Reinstate Workforce Services
Start up personnel services (like catering) and shift cleaning to the appropriate protocols.

Other Protocols
As needed.
In Closing

The COVID-19 crisis is global, and its long-term impact still is largely unknown. But there are things we already can learn from it. The world was not prepared to cope with it effectively in the short term and the economic ramifications are immense.

Although we can not foresee details of a future event, we can learn from our errors today and prepare for improved responses next time.

Many organizations are and will come forward with advice on how to deal with the vast array of topics associated to running buildings and FM services. Many of those will have merit and will become part of plans to address a future event. This COMs initiative is certainly just part of that puzzle, focused on enabling orchestration of approaches you choose to adopt. Above all, we wish you and your organizations all good fortune in addressing the COVID-19 pandemic.
The IFMA Foundation undertook interviews with several IFMA members to learn how they are responding to the COVID-19 pandemic. We sent out a questionnaire illustrated below. Some responders followed the template; others did not. In many cases, only minor editing was applied.

**IFMA Foundation Questionnaire**

**BACKGROUND DATA:**

Name:

Title:

Do we have permission to use your name and title? Yes/No*

Company:

Do we have permission to use your name and title? Yes/No*

Industry/Core Company Mission:

Geographic Location:

*If permission was denied, we entered “Not available”

**INTERVIEW QUESTIONS:**

1. What happened?
2. How did you respond to the coronavirus?
3. Is there anything you could have done differently?
4. What lessons did you learn?
5. What do you want to share with your colleagues?
1. When did your organization become aware of coronavirus?

Leadership became aware of the crisis in January. Because this situation evolved quickly and changed daily, it was difficult at first to comprehend the full depth of the crisis. In February, teams were mobilized, and clients were notified of WFH arrangements. In March, facility locations began drastically scaling back the number of associates onsite and began working to implement facility closures where necessary. In April, teams continued to track status of offices and legal mandates across the portfolio. Discussions surrounding the re-occupancy of locations also began in April.

2. Have you had a coronavirus event?

What happened?

We have not had a suspected or confirmed case of COVID-19 in my facility in Charlotte. There have been confirmed cases in other office locations, both inside and outside of company-leased space. Where there have been positive test results, partnership with Property Management groups and 3rd party providers have been able to provide the necessary remediation response.

3. Describe your coronavirus response.

Response to positive test results have been swift. We evacuated all our associates, if they were not already, and contracted with 3rd party janitorial and cleaning companies to completely disinfect the affected locations. Prior to any positive test result, legal and HR teams were working with client partners to understand the essentiality of work being performed in that location. If work was able to be performed remotely (e.g., at home) associates were moved to temporarily WFH arrangements. In certain situations, client and general corporate functions required associates to be onsite. In those situations, response plan has been as follows: mandatory social distancing protocols, enhanced cleaning, and sanitization (frequency and scope), limitations to the number of associates onsite, and lean-thinking in determining critical associates.

4. What lessons have been learned?

Proactive business continuity approaches should be conducted, and drills performed routinely to exercise the ability for businesses to react to situations like this. Other necessary steps include consistent communication between corporate stakeholders, continued identification and confirmation of site-level stakeholders, and further defined roles and responsibilities in crisis situations.

5. What do you want to share with your colleagues?

Pandemic situations like this push several key competencies to the forefront, including: emergency preparedness and business continuity, communication, human factors, finance and business, operations and maintenance, and finally leadership and strategy. Relationships with 3rd party vendors have been thrust to the top of everyone’s minds, as with standard employee safety and health aspects. As mentioned in several IFMA produced webinars regarding this situation, the view of the ‘modern office’ and general business decisions will forever be changed by this global event.
Serving Clients Who Serve Our Communities

From enabling work 24/7 at a COVID-19 test part manufacturer to helping a college campus evacuate 9,600 students from dorms, ABM team members are on the frontlines going above and beyond. Our janitorial teams help our clients and their communities by disinfecting buildings to keep working people safe. We’re also protecting our clients’ assets and budgets with HVAC and power systems maintenance for closed facilities.

In this time of massive furloughs, we’re striving to keep as many of our team members employed as possible. In many cases, we’re actually hiring. We are monitoring our staffing changes across the industries we serve and watching for significant impacts in critical market areas. Whenever possible, we redeploy ABM team members and we’re communicating to part-time staff if any additional work hours are available. Of course, ABM follows up-to-date CDC guidelines to keep our teams safe while they’re keeping our clients safe.

The best way to show what we’re doing is to share some frontline “unsung hero” stories shared by our clients and managers.

Facility Services

NAME: Tony Piucci
TITLE: Senior Vice President, Enterprise Solutions

COMPANY: ABM
INDUSTRY/COMPANY CORE MISSION: Facility Services

Maker of COVID-19 test parts

The manufacturer needed more help when they received government production approval and suddenly started operating at warp speed. Their ABM team’s dedication and support continued to help keep their facility and employees healthy and safe with all the necessary precautions. “Each one of you play a crucial role in this by allowing our staff to focus on the science, manufacturing, and detection of the COVID-19 virus. This site is working around the clock to produce the viral extraction and other components used. We are so grateful and honored to work with each one of them.”

Hospital Emergency Entrance

From an ABM hospital client: “Tonight I reported to my post in the Emergency Department to be an entrance screener. There I had the pleasure of meeting ABM team member Albert. He actually works as a valet part-time every Friday and Saturday evening. As patients and families came to the ED, he greeted them with a warm smile. Albert was very kind in his approach to let patients know that only one visitor was allowed per patient. He took his role seriously with the utmost kindness. The ED front door is in good hands with him there.”
School Food Program

When a Texas charter school needed last-minute support to fill in for people who were unable to get food to students in need, ABM team members stepped in to pack and distribute meals. The school wrote a thank you note applauding our “above and beyond efforts.” ABM’s “stepping up to the plate was a fantastic help.”

Financial Services Company

Offices in NYC’s World Financial Center relied on our help, saying, “These are trying times... Despite multiple last minute and unplanned requests for various deep cleanings, ABM people performed every single task without hesitation and with the utmost care. In addition to the business-as-usual services, they’ve been asked to perform a lot of additional work, in some cases late at night with very little notice. This COVID-19 situation has put extra stress on everyone, and you would never know it with your team’s response and exemplary service. We feel honored that ABM as our janitorial service partner. In true fashion, your on-site team continues to knock it out of the park.”

Major U.S. Aviation Clients

At an ABM operations meeting in late March, the airline client’s General Manager joined in to thank us profusely for outstanding performance for completing an EnhancedClean (a clean that takes several hours) on an aircraft. The aircraft was designated as a special flight serving congressional and faith leaders; ABM helped prepare the plane for the airline’s important clients amid all the scrutiny on the virus.

Another airline client recognized us for responding professionally and expeditiously to an EnhancedClean service request on an aircraft with a suspected COVID-19 case.

An ABM manager’s daughter had been anxious about flying. From a large international airport, she texted, “Mom, ABM people are everywhere and helping everyone. If someone is smiling, they have on an ABM logo!”

Living Up to our Mission

Times like the present test our company’s mission statement: “To Make a Difference, Every Person, Every Day.” We feel honored that ABM clients trust us during a crisis. We are happy knowing we can truly make a difference - being kind and conscientious while helping to keep businesses operating and people safe.
1. **When did you become aware about coronavirus?**

We came to know about this in late December. We started preparing plans by mid-January to survive this crisis.

2. **Have you had a coronavirus event? What happened?**

We have had to deal with several suspected and confirmed cases of COVID-19 in the workplaces that we manage. We self-perform or sub-contract “Deep Cleans” of the spaces based on the need at the time.

3. **Describe your response to coronavirus.**

As we started to hear about the coronavirus, the crisis management team put our baseline pandemic business continuity plan into action, continually updating the plans for the crisis to support the business, and to ensure the safety of our employees. The first thing that we needed to do as facility managers was to understand from the preparedness perspective. We needed to understand how to support our clients since our clients do essential business in manufacturing of medical products or other pharmaceutical equipment. In order to keep them up and running in line with standard operating procedures, we needed to begin securing hand sanitizers and other personal protective equipment (PPE). We set up a communication system that could be accessed remotely.

In the Level II, our PPE and critical supply heat maps notified us when we were running critically low on the stock. Procuring sanitizing agents, personal protective equipment and other janitorial requirements became challenging as everything was sold out. For the facilities business support we provide, it is essential that our employees use the personal protective equipment while onsite. Therefore, at times we have had scenarios where we overpaid for the equipment to keep the business up and running during the crisis. Even with limited supplies, we continually updated our standard operating procedures based on the information we had from the CDC at the time. It has been so dynamic that we are in revision 9.0 of our SOP. Every time the SOP changed, we trained our employees to use them when cleaning the actual or potentially infected areas. We used our normal personnel for standard and normal cleaning such as sanitizing high-touch points, handrails in the staircase, desk and chairs, etc. We had an additional extensive training for the employees to achieve level III and level IV cleaning. The employees were taught different types of cleaning like spray clean and a method of using electrostatic sprayers to neutralize contaminants in larger areas.

In the level III and level IV, we have multiple teams prepared for the deep sanitization in the areas that were suspected or confirmed cases, allowing the business to continue running smoothly and efficiently without interruptions.

To ensure that the products we received are free from any virus and other bacteria, we followed the instruction given by CDC and stored all the goods in a place for more than a day, wiped off all the surfaces with sanitizing agents and then started using them.
4. **What lessons have been learned?**

I believe that there has been something new that we are learning every day during this crisis. These are just early lessons that have been learned on this crisis. Having a structured framework gives us a sense of direction towards where we are and where we are heading. The initial stabilization of how to handle the existing challenges is pretty well worked out, and we have developed a “return to the office” protocol to prepare for that eventuality.

5. **What do you want to share with your colleagues?**

Certain elements of FM are company-agnostic and should be shared openly. This includes areas of Environment, Health, and Safety. It is essential to share the knowledge extensively when you get in environment and health care field. Due to this, we are working on some industry sharing platforms to facilitate the open transfer of knowledge and lessons learned. At the end of the day, Facility Managers need to strive to be continually updated and share their knowledge constantly. IFMA is a great forum to do this.
1. **When did your organization become aware of coronavirus?**

We came across this virus in late January when the government officially announced that the COVID-19 is a pandemic and started acting immediately to implement safety precautions.

2. **Have you had a coronavirus event? What happened?**

We were fortunate enough that the students were on their winter break when the virus broke out, and this made it relatively easy for us to handle the situation.

3. **Describe your response to coronavirus.**

We pulled out our crisis management documents that were prepared from our past experiences and started to take all the necessary precautions that would ensure the safety of all the members of the institute. The facility management team was required to work on-site for a few operations, like cleaning, sanitizing, and maintaining HVAC systems. However, we had a few personal protective equipment for the few staff. We accommodated staff members who traveled by their transport and who stayed at a walkable distance from the campus as we were short of personal protective equipment and the safety of employees were the utmost priority. Visitors were restricted, and staff who traveled by public transport were requested to work from home. The cleaning and sanitizing frequencies in the campus were increased, and social distancing lessons and use of masks was imparted to all the staff.

In parallel to this, the Information Technology team started setting up technology to work from home and online classes for our students. On the other hand, we also had several vendors, engineering departments, and security personnel who were falling short of personal protective equipment. We decided to collaborate with a few intuitions and other connections to order additional personal protective equipment and other supplies that were required for sterilization and sanitization of the campus as there was a massive demand for the supplies. All the members had to pass through a thermal screening once the university reopened. As things were uncertain and we didn’t know when something would open, most of our staff and other members went through a training program about working online, which would help us in the future, as well.

4. **What lessons have been learned?**

From this experience, I think we have learned to demonstrate leadership and be proactive, anticipate what is coming our way, and act fast to ensure the safety of the organization and business. We have also learned the importance of social distancing and using online platforms for communication. Lastly, we have learned the importance of networking for a facility manager.

5. **What do you want to share with your colleagues?**

As facility managers, we need to be on our toes, flexible, and always open to learning new lessons. Indeed, it is a facility manager’s job to handle the situation and give solutions to problems that arise to keep a business up and running. It is important to update ourselves every day with different kinds of issues and their possible solutions that appear in the FM field by engaging ourselves in various organizations and other social media platforms. I would like to share all the knowledge that I have gained through different situations and request all the facility managers around the world to do the same.
1. When did your organization become aware of the coronavirus?

We are much closer to Asia, and since Hawaii is a luxury vacation spot, we have tons of travelers from Japan, Korea, and China. The information on the virus naturally spread by word of mouth much faster than the media. It was the second week of January that we came across this virus, and we started with the pandemic planning and updated our contingency plans specific to a viral pandemic.

2. Have you had a coronavirus event? What happened?

Fortunately, we didn’t have any cases that were affected by the Coronavirus. To make sure our associates were safe, we had taken the safety measures of proactively modifying our business services, identifying essential vs. non-essential employees and offering telework options where applicable.

3. Describe your coronavirus response.

We are hitting some situations that are unprecedented. As the situation is getting denser every day, our plans are continually evolving. However, our Pandemic planning is doing a great job of setting standards through this crisis. We have set up a framework which in military terms, is known as force protection condition (FPCON). In this framework, we build six levels that escalate mission response based on the changing environment. This FPCON framework has helped guide us to where we are now and where we are heading.

The pandemic plan broke out, and in the first level, it outlined the details like communication with staff and headquarters, managing the critical inventory, and personal protective equipment. Cleaning frequencies were increased along with cleaning technology such as using an ionizing gun, which disinfects surfaces with positively charged atoms that stick to the surfaces. We also sanitized the space.

In Level II, we started cutting down business services such as comedy shows, live music nights, buffets, and other events for our customers to promote social distancing and avoid gatherings. Hawaii imports 96 percent of the products that are required for day-to-day sustainment, making logistics during a time like this that much more complicated.

In Level III, we decided to stop taking any reservations, cancel incoming reservations, and have existing guests find other accommodations. Before the property was vacated, we communicated with all the guests and associates the facts about COVID-19 transmission and preventive measures to stay safe. We call this strategic communication. At this level, we also taped 6 foot long lines around high traffic areas of the facility to promote social distancing.

In Level IV, the main idea was business continuity during the crisis, so we decided to update all the technologies that were required for working remotely. Most of the administrative staff in various departments went under telework training: a structured format and a mutual agreement for the supervisors and the teleworking employees. A checklist was prepared to make sure the employees have all the resources at their home to perform their duties. Work standards and expectations were created for each teleworking employee. Service contractor lists were developed for essential versus nonessential to limit transmission. Minor construction was in full execution as occupancy was low. The facilities team was busy accomplishing essential deferred and preventative maintenance.
In Level V, some departments that required meeting face-to-face for day-to-day operations was stopped and started using alternative technology that is available as a complete lockdown of the island was issued to self-quarantine for 30 days. These technologies included video conferencing, SMS, and conference calls.

In Level VI, they were setting up an effective communication system with all the members to make sure that the business continues. The specific website was created for accessing documents and FAQs for the associates. High-risk classified associates were placed on administrative leave, and only essential staff were running the facility. All on-site associates, guests, and contractors were required to wear a cloth mask if they could not maintain a 6-foot distance in human interaction.

Since Hawaii is an island and 96 percent of the products are imported, stockpiling any cleaning agents or other things has been a tedious job. As a facility manager, I acted quickly and ordered critical supplies and personal protective equipment for my employees. Since there was a global shortage of personal protective equipment and resources, we very carefully allotted them to employees who would work on-site and were prone to be in contact with humans during their work. Ninety personal protective equipment were reserved for an emergency, and anyone using the reserve of PPE had to obtain the consent of the director.

4. What lessons have been learned?
Every day has been a new course of learning for this situation in a rapidly evolving environment. We haven’t come out of this situation, and hence it would be too early to give out the lessons learned. Some evident things are changing the way we communicate and interact socially.

5. What do you want to share with your colleagues?
I am a firm believer in “knowledge is power.” Facility management is a field where you have to update yourself daily to keep up with the industry as the technology and other trends keep changing rapidly. It is essential to share what you learned so that others have an idea to deal with a similar situation. As a facility manager, I strongly believe in “One team one dream,” and to achieve this, strong communication skills are essential. Communicating efficiently is the key to success for a facility manager.
When did your organization become aware of coronavirus?
The organization became aware of Coronavirus in Pune (India) when there were cases reported due to International traveling.

Have you had a coronavirus event?
Fortunately, we did not have any coronavirus events in our organization. However, to stop the spread of COVID-19 and ensure social distancing, the State Government of Maharashtra in India introduced complete lockdown of major cities like Pune, Mumbai and Nagpur during the week of March 15 for two weeks, followed by India Prime Minister declaring a complete India lockdown from April 14-24 for three weeks.

Describe your coronavirus response.
Business units and Human Resources planned for the initial two weeks for employees coming to office at 50 percent headcount in split shifts to ensure social distancing on work floor. Facilities/WPS team enhanced the frequency of cleaning with disinfectants of the cubicles, high touch points, conference and meeting rooms, pantries, washrooms. We increased the quantity of floor-mounted sanitizers, placed sanitizer bottles at conference/meeting rooms, reception, entrance doors, PPE procured and stocked adequately, planned disinfectant fumigation of the facility, started thermal screening of employees, stopped the entry of visitors into the office (only entry of essential facility vendors was allowed past thermal screening), one meeting room reserved as a quarantine room if needed, enhanced cleaning of cabs and bus shuttles placing sanitizer bottles in each. They were carefully coordinated with the LL (being a multi-tenanted large IT campus) for sanitization of common areas like floor elevators, cafeterias, gym, snack bars, sports arenas, auditoriums, and amphitheater.

What lessons have been learned?
The lessons learned from this crisis are the importance of social distancing, planning during a pandemic situation, the pace at which a facility manager should respond to an emergency. Important also are coordination with business unit leadership and Human Resources for planning quick actions.

What do you want to share with your colleagues?
I am sure all my FM colleagues world over must have had a robust experience to handle this unique, highly challenging situation being at the forefront acting as the Captain of the ship to make sure all our employees and immediate facility staff is well taken care of. This experience has made us battle-ready and strengthened our resolve to face the toughest challenges head-on - and survive. I wish good luck to my FM fraternity in these challenging times.
1. **When and how did you or your organization become aware of the coronavirus?**

It all started around end of January during the Chinese New Year. The government issued a mandate that all employees must work from home during the holiday because of the outbreak of COVID-19 due to the foreign cases travelling to Hong Kong.

2. **How did you respond to the coronavirus?**

The response level was initially serious and as it spread rapidly the response level turned to emergency. After an initial discussion with crisis management team, facility managers were required to quickly respond to the cleaning frequency and sanitation of all the premises. The employees were supplemented with sanitizers and wipes to maintain a high level of hygiene in the organization. facility management had to secure additional cleaning resources and upkeep the cleaning frequency as they anticipated this would be an emergency response.

The company follows a protocol of reviewing the contingency plans and updating them when the response level to the situation changes to make sure everybody is aligned in place and the business continues to work.

**PHASE I**

In the first phase the facilities department collaborated with the regional office, emergency crisis team, pandemic taskforce, corporate real estate team and different management teams from various fields of the business to make sure there is proper communication and everybody is aware with the plan of action going forward to reduce the panic situation within the organizations.

In parallel to this the operations and management teams provided a voluntary temperature check for the employees entering the building. Masks were made compulsory for all the employees. The number of visitors was limited.

**PHASE II**

In phase II, the operations and maintenance team had to formulate procedures for mandatory temperature checks for all the employees of the organization and seek legal advice to make sure that they could collect the data. The plans for the budget had to be reallocated. The use of masks was made mandatory for visitors also. Visitors were made to sign a declaration that they haven’t traveled to places that were affected. The facilities team made an employee assistance program to make sure that all the employees are aware of the local quarantine guide and to seek medical help immediately if found with any symptoms. The frequency of the deep cleaning and sanitizing the space was doubled. The facilities also had an emergency disinfecting plan for the space that would come up if someone in the organization was affected or came in contact with an affected person. The facilities had to increase the stockpile level of the disinfectants, sanitizers, masks and gloves as the situation turned worse. To make things much simpler for all the employees the facility team developed an FAQ that the employees could look upon for any queries. The company encouraged all the people to work from home as they had set up the HR mailbox in which any queries or feedback of the employees was addressed immediately. The internal chat group was created for other staff members who were comfortable using phones. The company created two teams in which the Team A was in charge of the office operations and maintenance and Team B was in charge of business continuity.
PHASE III

Facility management developed a main step: Social Distancing. The mandatory measures in the social distancing were the tables were placed 1.5 meters away in the café and restaurants. They used QR code and online payments for ordering food in the café, which eliminated spreading the virus. The occupancy of the shuttle busses for the staff and employees was reduced to half and would be deeply cleaned after every trip. The retail branches were installed with a space shield in addition to providing masks and goggles to make sure employees are protected from close contact with any person. The organization decided to add some temporary additional space for the split operations for the operators to work and maintain social distancing.

3. Is there anything that you could have done differently?

Facility management in this organization has handled such situations during H1N1 crisis. The management holds a strong contingency plan for such crisis and updates them whenever required.

4. What do you want share with your colleagues?

Risk management in facilities in not only in technical terms like power outage but is also being prepared for pandemic issues and making strong contingency plans/strategic plans for business continuity. While facing such situations, sharing is caring and hence I will share all the knowledge that I have learned from this crisis and request all my peers in the FM industry to do the same.
1. When and how did you or your organization become aware of coronavirus?
I would say in early January.

2. Have you had a coronavirus event? What happened?
No, we did not have any sick events. The facilities team created a new procedure for cleaning. They came in the early morning every day to disinfect the common areas and the high-touch points with a medical-grade disinfectant. We would leave the disinfectant on the surfaces for at least 10 minutes and then wipe it away. The overall cleaning frequency was increased. Staff was provided with personal protective equipment to make sure they were safe. The employees were enlightened about the virus and the safety precautions that had to be taken. Employees were asked to follow the CDC guidelines; the use of masks and gloves was made mandatory. When Stay-at-Home became a mandate in early March, only security and janitorial teams were allowed inside the museum to make sure the daily operations took place.

3. Describe your Coronavirus response?
Our response was slow at first. We started the process of being aware of the virus and how to protect our staff from it. Senior management started a COVID-19 task team to monitor and report back to them. It was not until March that everything hit the fan and we started to follow the Stay-at-Home mandate.

4. What lessons have been learned?
We learned that we did not have enough supplies like masks and liquid hand sanitizer on site. We will purchase more in advance for the next time.

5. What would you like to share with your colleagues?
During a crisis like this, which we have never been through before, I think it is better to share the knowledge and experience that we go through on more prominent platforms like the internet or social media. We can help people take preventive measures if they have not come across a similar situation or prepare them to fight a situation like this in the future.
1. **Describe your coronavirus response.**

As COVID-19 began to impact communities around the world, Delta Air Lines acted quickly to protect employees and ensure that the team had a safe space to continue to deliver exceptional customer service. JLL partnered closely with the Delta team to bring their COVID-19 response to life at their Atlanta headquarters campus. The story below showcases just one example (among many others) of how the JLL team responded to Delta’s changing needs in the face of COVID-19.

Delta needed space for its Reservation Sales Department to handle urgent customer needs that could not be completed remotely, while also maintaining enough distance from each other to be safe. They enlisted JLL to move hundreds of Atlanta-based reservation specialists from their offices to a new call center set up in a hangar of Delta’s on-campus museum, beneath the wings of “The Spirit of Delta,” a historic Boeing 767 aircraft. In 72 hours, JLL’s Moves Adds Changes (MAC) team worked tirelessly around the clock to create 305 workstations, spacing them out in accordance with the Center for Disease Control’s recommendations for social distancing. The JLL and Delta teams also collaborated to set up a break room with refrigerators, microwaves, coffee machines, hand wipes and other necessary supplies to help keep people safe. When Delta’s reservation specialists arrived for their first day in their new space, JLL’s Experience Ambassadors were on-hand to give tours, handout maps, and answer questions.

Our team brought together experts in facility management, change management, moves, space, human experience, and communications. The group helped lead orientations and tours for the specialists moving into the new space, recognizing the importance of helping them feel comfortable in their new environment, now more than ever, so they can continue to focus on serving their customers.

2. **What lessons have been learned?**

▶ Get creative with how you use and configure available spaces to reflect social distancing guidelines. In total, Delta has been able to set up five temporary call centers across the United States, in a variety of space types – with two located in Delta Sky Clubs, one in a decommissioned high school gym, and two in traditional office spaces.

▶ Replicate those strategies that are working well. After successfully setting up the first temporary call center, Delta was able to quickly and efficiently apply the same framework and approach across multiple sites.

▶ Prepare to apply your learnings to your broader re-entry strategy. Setting up Delta’s first temporary call center gave the team an early opportunity to test and learn when it came to placing social distancing guidelines into practice. These early experiences will help inform Delta’s broader re-entry strategy across their portfolio.

3. **What do you want to share with your colleagues?**

It is no secret that COVID-19 has presented unique challenges, in our lives and in our organizations – and solving these challenges requires us to get creative with our solutions. Now is the time to move away from a “we’ve always done it this way” mentality and to really focus on creative, outside-the-box thinking.
1. **Describe your coronavirus response.**

As COVID-19 began to impact cities around the world, The City of Chicago approached JLL through an existing contract for help with continuously operating McCormick Place (one of North America’s largest convention centers) as it transitioned from a convention center into an alternate care facility capable of accepting COVID-19 patients. In just under two weeks the convention center was prepared to accept patients from area hospitals with possible overflow. JLL’s Public Institutions and Healthcare teams took swift action to provide the city with integrated facility management services for McCormick Place. With JLL on-site, the first 500 of 3,000 beds were unveiled by Mayor Lightfoot and Illinois Governor JB Pritzker, on April 19, 2020. JLL contracted local minority/women-owned businesses to provide components of facility maintenance, security, cleaning, waste removal, and more. The collaborative team is working day and night, seven days a week to prepare the city to fight the pandemic. While we hope that very few of the roughly 3,000 available beds are ever used, we take solace in the fact that Chicago is in a better position to manage patient care today than it was just 14 days prior.

2. **What lessons have been learned?**

- **Collaboration is king.** There were so many different organizations and individuals involved in making this happen, and it could not have happened without collaboration by all. Everyone was working with one objective in mind: to help healthcare workers and their fellow citizens. What the team stood up and began to operate in just a few weeks was amazing; collaboration made it possible.

- **Timeframes can be compressed.** We compared our transition approach to that of fast-tracking the construction of a high-rise commercial building. There were many transitional activities that we were able to complete concurrent with coordinating the contract, which greatly streamlined a “typical” transition schedule. Coordination with subcontractors was also critical to the success of the compressed timeline. Finally, having the resources and bench strength internally was a key element in achieving the transition schedule.

3. **What do you want to share with your colleagues?**

**Collaboration is more important than ever.** To make this happen in the timeframe needed, we needed to collaborate internally and externally in ways we had never contemplated before. We also learned that such collaboration can be successful even with 100 percent virtual communications.
1. **When did your organization become aware of coronavirus?**

We came to know about this virus in late January when it was on social media and other platforms. Fortunately, one of the professors from our school was in charge and an active member of the previous H1N1 pandemic committee addressing the concerns. The professor took the initiative to alarm the school about COVID-19 and its implications.

2. **Have you had a coronavirus event? What happened?**

We had a suspect from the perspective of being ill and was self-isolated, and when the person went through a test, the results were negative. We have been fortunate that we have not had any cases.

3. **Describe your coronavirus response?**

The initial response was organized from the Dean’s office, putting together a COVID-19 response committee, which included Information Technology operations, Facility Management, and various other teams that represent the various functionality of the campus; also represented was the faculty and class schedule – the Registrar’s office and Student Affairs. This committee took charge and started acting from the start of February, gathered all the preliminary information required from the CDC and the Los Angeles County Department of Health to act immediately. We decided to shut down the campus and move to the online teaching format on February 11 as the situation got worse. The Information Technology team was lightning quick and brilliant to set up all the training programs for the teachers to use the online platforms. The law schools have a unique requirement of recording all the activity in the classroom and store them; hence most of the faculty went through a Zoom conference and recorded the training. Tuesday classes were canceled, and the online platform for everybody was set by the following Thursday.

It was quite a task for the Facilities team to work from home as it was necessary for the Facilities team to be on-site and work. It took us a week to sort out how to manage the on-campus operations like moving the mail and other important tasks. Since this is a law school and mail cannot be left unattended for long, we had collected them with our Personal Protective Equipment on and stored it in a storeroom for a couple of days to ensure that it was free from any virus. Once the mail was bought back from the storeroom, an image of the postal cover was sent to the recipient of the letter. The recipient would come and collect it if it were confidential, or a trusted person would scan the letters and send it to them via email.

While the library services for the law students are very important, the Facilities team enabled the students by moving the library resources from physical books to the online sources.

We were aware of the basic issues by following the daily news. However, as mentioned earlier, the professor who
worked in the H1N1 committee had a sense of urgency and requested the facility management team to make arrangements for the personal protective equipment and other sanitizing and cleaning materials required for the next two months.

The campus was prepared from the point of knowing that everyone would work from home and was prepared from the security perspective. All the perishable goods were moved to the main campus as we had the same vendors. There are minimal activities on campus that are taking place after the shutdown, which is essential for the campus to function smoothly when open again.

4. **What lessons have been learned?**

The entire global community has learned a lot from this crisis. I would like to mention that students and faculty have adopted the new learning environment of teaching online, which might be the future of education, as well. The online environment is going to take over most of the things in the future.

5. **What do you want to share with your colleagues?**

I think that it is remarkable the work the facility managers do around the world and they are unsung heroes, especially those who work at places of critical needs like hospitals, police stations, and other emergency places where they work around the clock.
As a Singaporean living in China since the end phase of SARS to the current COVID-19 pandemic, I want to share my insights and experience. I take this opportunity to communicate as objectively as I can. As Facility Managers we are responsible to the company and the facility users to provide a safe environment that meets legal requirements, as well as that supports the company’s mission. We must remain objective in making our decisions and recommendations.

I will address the following areas:

▶ The Challenge for Facility Managers
▶ Basic Response Suggestions to the COVID-19 Pandemic
▶ The Importance of Communications
▶ Some Practices from Asia
▶ Importance of Debrief and Learning Opportunities
▶ Summary

The Challenge for Facility Managers
During this crisis, the experience and skills of the facilities team will be challenged to meet the demands of the company’s mission and its response.

Remember the first principle of why we are hired as Facilities Managers. Successful Facility Managers are continuously challenging the “norm” and pushing the envelope with new ways, equipment, and technology. I strongly believe we are more than “rules enforcers” but to work at how the rules and the company’s plan can coexist together no matter how difficult it is. As a Facility Manager I have taken a lesson from one of my bosses “to copy shamelessly.” This is where practices from outside the company are copied to implement within. I have refined the guidance to “Think Globally, Adapt Internationally, and Implement Locally.”

Basic Response Suggestions to the COVID-19 Pandemic
In preparing your response you need to be aware of the local laws and be aligned with or exceed their recommendations. The starting point is the extra cleaning and other simple measures (note that this could cause a run on your current stocks). Remember that your colleagues in neighboring sites will be taking similar actions. This will impact domestic supplies; hence your company should continuously identify alternate supply sources.

In short, it is about learning from inside the company to around the world best practices and lessons learned. Adapt these to suit your own company culture, resources, environment, education, and expertise level. The last stage, which is the most important, is to challenge status quo and localize the learnings to implement at your sites successfully. And when you reach best in class, the cycle continues with you continually sharing so that the group you are in would push each other to greater heights of excellence.

It is important to remember that just because one process is implemented with good results in one country or company, it may not be the same as another country or company. There are so many factors to consider. However, as we are now in crisis mode, time is of the essence and you may have only time for a quick tweak to localize the process. When there is a crisis of this magnitude, the facilities department must rise to meet these challenges in a timely manner.

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DATE OF REPORT: March 20, 2020
The response could be in various stages depending on the criticality of the COVID-19 crisis. Ensure clear definition to when the escalation of the response takes place and its de-escalation. Many countries in Asia have defined their stages of response. For example in Singapore see https://www.gov.sg/article/what-do-the-different-dorscon-levels-mean.

- Acquire needed equipment and provide training required both for staff and outsourced service providers to respond to the crisis.
- Determine where to get the consumables and resources needed (beyond single source); purchase and safely store them.
- Check your storage and supplies in case such equipment or consumables are already available and still within the expiry dates. (There had been embarrassing stories of supplies gathered after SARs but totally useless today as they exceeded their expiry dates.)
- Identify what your neighbors are doing and work together (sharing processes and sources and even resources) if there are possibilities.
- Know the local regulations, hospitals, and medical resources. (Some countries assign possible COVID-19 cases to designated hospitals.)
- Keep updating as the information would remain fluid especially if the COVID-19 cases surge. We need to respond correctly and accurately to the threat bearing in mind the domestic rules and regulations.

The Importance of Communications

As Facility Managers we need to communicate our actions and diligence. The extra cleaning and the extra resources available to the employees, for example, all help to tell a story. Whether there are any cases on your site, you would need to communicate the promptness and the detail in meeting the new challenge to provide reassurances to the actions taken.

Use all available platforms for the appropriate type of message. Pictures, signs, listings, and activities descriptions are strong yet subtle actions that Facilities Departments are taking to meet the threat of the COVID-19.

All staff at all levels responsible for communication should be aware that the World Health Organization (WHO) has made recommendations on how to report on COVID-19. (This can also be used as a guide for any future virus communication.) Some of the recommendations are as follows:

- **DO** Talk About COVID-19 but **DON’T** relate it with a source, race or even a person name like “Wuhan Virus” or “Chinese Virus” or “Asian Virus”
- **DO** talk about people who have, are being treated or recovering from COVID-19, but **DON’T** refer to them as COVID-19 cases or victims
- **DO** talk about people who may have COVID-19 but **DON’T** label them as COVID-19 suspects or suspected cases
- **DO** speak accurately about the risk from COVID-19 based on scientific facts and official health advice but **DON’T** repeat or share unconfirmed rumors or use language to generate fear

The intention of communication is to inform, to build trust between management and employees, and to provide directions, assurances, and assistance. It should not divide or create focus on an individual or a location especially in situations like this. We also want those having the symptoms not to feel alienated and not go for treatment or own up. In the initial stage it may be easy to take medicine to mask the symptoms while they are the most infectious to their colleagues.

This is also the time to communicate about how to upgrade personal hygiene habits; we should provide instructional posters/emails, etc., and the resources available. One would be surprised how often we wash our hands, let alone how we wash our hands. We need to communicate our actions:

- There is enough soap in the dispenser – we all have been there – no soap or nonworking dispensers
- There are enough hand dryers (although some experts have disagreed on their use) or we have related consumables
- The toilet/hand washing facilities are clean, and the waste bins cleared regularly
- All basic equipment is working correctly

There must be communication before, during, and after the phases of the crisis. Ensure that management can not only “talk the talk” but “walk the walk.” It is important to let actions emphasize that your management is in control of the situation and they can be trusted. Also rules and directions must be specific so as to be applied consistently throughout the company.

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Some Practices from Asia

The following are some practices I have learned about in China and other locations. I wish to share these with my colleagues; please adapt to your situation.

EMPLOYEE PROTECTION BY “AREA”

There was a need to do manufacturing during the heights of the COVID-19 crisis and there was obviously a strong requirement to protect the employees from passing the virus. Facilities staff implemented the following:

▶ The creation of a “GREEN AREA” where the staff is definitely clear of COVID-19 and would remain there indefinitely or until relief.

▶ The creation of a second area called the “TRANSITION” which is the neighbor of the “GREEN AREA.” This is where staff would remain for 14 days to ensure that they are clear of COVID-19 prior to entering the “GREEN AREA.” At no time the staff mixes or go across area borders until they are cleared.

▶ In the “GREEN AREA” and “TRANSITION AREA” they must have all the necessary means for human comfort and rest. These facilities are separated in each area and defined accordingly. I would assume the HVAC and other potential cross contamination are considered in the final plan. Any supplies including food coming in have to be “contactless” (without external human contact) and sterilized. They converted some meeting rooms as resting areas for use by staff in the “Green Area” or “Transition.”

▶ The rest of the area is the “RED AREA” which is the general area where staff can go in and out using the normal current restrictions.

The process was carried out and there were no reported infections. It forced the Facility Manager to think out of the box but within the engineering capability of the Facilities, the science of the virus and infection, and the understanding of human behavior. Neglecting any of the above factors and the plan would have failed.

DEVELOPMENT OF SPECIALIZED APPS

Specialized apps that reside in mobile phones were developed to provide the status of the individual and that their general physical condition meets expectations (based on a questionnaire) and that they meet the minimum quarantine from an affected area.

This is a dynamic app which is updated continuously. From my understanding the mobile phone carriers are one of the bodies providing information to assist in determining the status. (There was a story of a person from Beijing who took the opportunity to hike in the “empty” countryside but unknowingly he strayed into Hebei Province. Upon his return, his status changed requiring him to do a 14-day quarantine as he had theoretically left the county.)
TEMPERATURE MEASUREMENTS

There are questions on the effectiveness of temperature measurements, partially due to accuracy and proper use. Other questions are the potential asymptomatic carriers and users who mask their symptoms with medicines. It is still a first level of defense. The use of contactless thermometers ranges from handheld to the Infra-Red camera type. For those using handheld devices to measure temperature, ensure that the operator knows how to use the device correctly. I have seen and heard of a couple of cases where it read “LO” or “—” and entry was still permitted.

TEMPERATURE MONITORING

Temperature reading and contact tracing becomes compulsory to enter any location including shops. Most of these locations use mini-programs which run on social media platforms to help in the contact tracing. The whole process is labor intensive as it includes physical temperature measurements. The service providers were called to assist. (In one of the shops, the helpfulness of the service provider was observed helping shoppers to navigate the apps on their phones to enter the shop. A perfect partnership in action!)

A negative example was where the landlord required the staff of their tenant to enter their temperature twice a day through their app. The company was also required by authorities to record the temperatures of all their staff once before coming in. After a few days, some of the staff provided only one temperature reading to the landlord. Currently most of the staff has ignored this requirement and only submit their company’s requirement of temperature reading at the start of the day.

One of the barriers was that there was only one (of two) temperature readers at the entrance on the ground floor in the multi-story (more than 20 floors) building, making it inconvenient for temperature checks especially for the second one. It was highly likely an estimate would be documented. We need to make it convenient if there is a requirement for action by the staff. There was no “follow up” on the lack or noncompletion of submission. Also, recording for the sake of recording serves no value to the process. These requirements would just fade away and any further requirements would probably be met with increased resistance.

CLEANING

Cleaning is a visible, powerful, and potentially good defense against the spread of the COVID-19. There are some medical sites that are reporting that the virus can survive for more than 3 days on stainless steel and plastic surfaces. Whatever it may be, increasing the frequency of cleaning and using the appropriate disinfectant must be considered. The smell of disinfectant is an added assurance some cleaning has been done recently. It could be subtle or marketed accordingly. Some practices include:

- The use of spray disinfectants on the incoming packages before being distributed.
- The implementation of an under-shoe wipe disinfectant but only useful for low traffic areas. (Good for flat soles but questionable for sneakers)
- After each meeting there should be a quick wipe down of the meeting room on all the major surfaces.
- All “handle surfaces” or “touch plates” should be cleaned and disinfected regularly.
- Pantry areas and breakout areas should be cleaned and disinfected regularly.
- Lifts and common areas should be cleaned and disinfected regularly.
LIFTS (ELEVATORS) AND STAIRS
Lifts are an area where it tends to be crowded and enclosed. If there are supporting methods to manage the lifts more efficiently like staggered working hours and mealtimes, those modifications would be useful. Consider using engineering or software to work out the optimum operations of the lift to the floors, timing, and load. Encourage occupants to use the stairs especially for the lower floors. If fire exits are used, bear in mind the local regulations.

At the crisis onset I noted that there was a single piece of plastic over all the lift buttons. Although not elegant, it does serves two functions. For the fear of the spread of the virus, occupants may start to use alternative means other than their fingers to activate those buttons (from tissue paper to pens/keys). Thus, the plastic protects the buttons from damage. The other function is to ease cleaning of the buttons. There is no need to deal with the crevices between the physical buttons and the housing which takes a bit more time.

In some lifts there was a provision of hand sanitizers and even tissue paper near the lift buttons (control panel) for users to use. It also included a small basket for the disposals.

ENTRY (ENTRANCE) AND EXIT
Most buildings have many entry and exit points. There may be a need to control entry and exit points for compulsory temperature readings and/or verification of fitness of entry.

- First separate the entry and exit points so that there is no confusion.
- Warn the occupants early in the event of any closures ahead. Put security staff at entries and exits, if needed. With the current stress levels, one would become angry if after walking 200m one is informed of a closure of an entrance that is normally open.
- Make sure the points are resourced appropriately for the expected number of people using the location.
- Be aware and communicate what to do in a fire emergency during such time.
- Similarly, you need to be aware of traffic flow outside the lobby and the car park (parking lot/garage) to be aligned to all the enhanced measures.
- Put a process in place to manage visitors, contractors, and authorities.

SOCIAL DISTANCING
As COVID-19’s possible spread is through the air from coughs, sneezes and touch, there is a strong advocacy to practice social distancing. Alternative greeting practices were implemented, and people were at least 1m (2m or 6 feet in the US) apart in queues, eating, and even in meetings. Some include:

- To help in the social distancing in the cafeteria/canteen, space the tables apart and halve the table occupancy by removing chairs or implementing sitting alternately.
- Setting up time slots for particular departments or floors for the use of the cafeteria but also ensuring that the earlier group leaves on time.
- Stagger cafeteria eating hours for particular floors at designated times to prevent overcrowding of the cafeteria. However, refinement is needed to know the potential numbers from each floor and to be organized accordingly. The lifts (elevators) will always be choke points. (Suggest that the pairing be with one low floor and one high floor and encourage the use of the stairs for those on the low floor.)
- There should be a limit on the number of occupants using meeting rooms and lifts, if possible.

CONTACT TRACING
The ability to contact trace is important when there is disease breakout, as quick segregation and quarantine actually helps break the transmission cycle of the virus. Some countries like Singapore and South Korea that implemented serious contact tracing have mapped the spread and confirmed the importance of breaking the transmission cycle. The high infectiousness of COVID-19 can be seen in their map of cases. It illustrates what happens when they were successful and what happens if the authorities were slow in quarantining.

Singapore had contact tracing “detectives” to help in the process that made it successful. They worked with the police who also used other technologies to assist them. An article by the BBC provided some insight.

I noted the rise of mini-programs on social media platforms that were used in China to help in the contact tracing process. Some countries have started using the COVID-19 patient’s mobile phone to trace their whereabouts to identify potential breakouts. This is on top of our use of e-cash and credit cards. (Of course, in some countries, privacy laws may be the barrier of such measures.)

China also practiced contact tracing especially of people coming back on flights. I have heard of stories of people who were either quarantined at home for 14 days or on self-quarantine, having promptly “upgraded” to central quarantine because one of their fellow passengers on board was diagnosed with fever and then COVID-19.

CAFETERIA

Facility Managers should:

▶ Focus on cooked food so that the chances of transmission are reduced.
▶ Verify the staff of the cafeteria is checked regularly and attired appropriately.
▶ Understand there was a tendency to replace washable utensils with alternative utensils (disposables) to break the transmission. However, if you have proper dishwashing equipment with very hot water, this may not be necessary. (More research is needed here.)
▶ Know that in China, for take-away food they have a label that has the cook’s and delivery person’s names and their corresponding body temperatures. Of course, it simply provides a psychological reassurance as the data are not verifiable.

IT LOADING/WORK-FROM-HOME

In China, school, work, cinema, and even variety shows moved to the internet when they shut down. Facility Managers in concert with IT should ensure that the IT system is resourced appropriately including bandwidth and security for the increase in traffic from work, home, and video conferencing. Instructions for how to set up and troubleshoot devices should be available to the employees using a mixture of videos and instructions.

QUARANTINE AND ENFORCEMENT

There are three types of quarantines here in China for dealing with COVID-19:

▶ Self-Quarantine: you feel it is the most responsible thing to do
▶ Home Quarantine: you stay at home as a requirement
▶ Central Quarantine: the strictest and most heavily controlled
There are cases where people on home quarantine take small escapades for entertainment or just feeling irresponsible. Some home quarantine illustrations are:

- In Singapore they use their mobile phone to share location with the inspectors. Intermittent calls on the phone would require that location sharing is switched on as well as sending current videos of their locations. This is on top of spot checks by enforcers. Actions are taken against those who break the law.
- In another country they were made to wear special bracelets that continuously report their location to the authorities.
- In China they install a magnetic catch on the entrance door that will alarm if it is opened. They also use the strong sense of community to work with the authorities. There is a sign outside the door stating that the person in this room is under quarantine and to help the person. One can read it both ways like providing food and essentials and/or actually reporting breach.
- In China when they take the temperature of people on quarantine, they also help take out their rubbish.
- Enforcements implemented range from the cancellation of passports to shaming on social media. At least one case I am aware of, the person was fired from the workplace when she showed no remorse for breaking the quarantine order.

**PUBLIC TRANSPORTATION**

Subways and public transport tend to be crowded normally. The authorities in China have started to control the number of passengers at the subway station. They get the passengers to wait outside. In my opinion, the subway is still crowded but less crowded when compared to previous times. They are hoping that more people will take taxis and private cars for transportation during this time of crisis.

Temperature checks are still done on all passengers for the subways and the ferries prior to entry into the stations. Additionally, the ferries and trains are disinfected regularly and more often.

**EMPTY AREAS FOR ALTERNATIVE USE**

Facility Managers have identified unused areas that can be repurposed for alternative functions ranging from temporary quarantine areas to working areas. These spaces ranged from meeting rooms to huge empty areas.

- In Beijing, flights from high risk areas enter a designated terminal. Passengers are bused to the nearby huge exhibition center where the passengers are interviewed, processed, and either centrally quarantined or released.
- Due to the huge number of incoming passengers, Beijing started to divert flights to alternative cities for passengers to be checked and verified before allowing them entry into Beijing.
- In some cities, empty gymnasiums, stadiums and buildings are used to house certain medical functions to support the same effort in dealing with incoming passengers.
- In Wuhan, China, officials built two “Field” hospitals “Huoshenshan11” and “Leishenshan12” within 10 days and 12 days respectively with a total of 2,600 bed capacity. They provided the needed capacity for medical treatment at that time. As I am writing this, officials have started closing the two hospitals and sending the extra medical staff home outside of Wuhan.

**LOOK AFTER YOUR OUTSOURCED SERVICE STAFF**

If you as a company are paying your service provider in full, please ensure that their (your outsourced) staff are also paid in full. This ensures that when the situation improves, the same staff are available to start quickly and without impact to service levels. It is sad that at times like this, the impact to daily waged personnel are higher. They usually get paid less during this time, but they still need to meet the obligations of feeding and housing themselves and their family.
Importance of the Debrief and Learning Opportunities

After successfully surviving any event, there will always be the celebration and hopefully recognition. But the most important event afterwards is the debrief. Take this opportunity to learn when the memories of the events are fresh. I believe when COVID-19 is over, more steps and observations can be added to this document as fresh learnings and fresh approaches are identified.

The importance of the debrief also includes the manner in which it is conducted. The mood and the approach are equally important to ensure learnings are identified. If it is about fault finding or only celebration, the opportunities for learning would not be identified. Real expression must not be subjugated. All points need to be looked at objectively and without bias. If it is done correctly by all, especially by the leader of the team, it will bring in good opportunities of learning.

Ask deep questions about the event. Provide the necessary support (emotional and physical) if there is ownership of a problem. In any crisis there will always be better decisions to be made but at that time, with the lack of time and information available, the pressures and the environment, it was probably better than making no decision. Documenting this just helps us better prepare for the next time.

With this new information then comes the difficult task of updating processes of crisis management. It is noted that no crisis management process is foolproof because of the nature of crises. However, this update allows you to better meet the fresh challenges of a new crisis when it occurs.

The importance of the debrief is to find lessons learned from any crisis event that impacts you directly or indirectly. Implement these new learnings by updating your crisis management plan accordingly. However, a balanced approach is needed: do not overprescribe the crisis management processes. No two crises are ever the same – even another Coronavirus outbreak.

Summary

A very interesting and informative video can be seen at https://www.shine.cn/news/nation/2003224825/. In it, a Japanese filmmaker documents life under quarantine in Nanjing, China. The video is in Japanese but with English and Chinese subtitles. After the pandemic passes, the video will become a reminder of how life was.

COVID-19 is highly infectious and as of the report date, there is no direct cure other than treating the symptoms. Globally, if the world works together instead of placing blame, playing political games, or serving hidden agendas, there is a strong chance that we will beat it by breaking its transmission cycle and eventually finding an appropriate cure.

However, for the Facility Managers who are prepared, able to think on their feet, and greatly resourced with their network and the internet, this is an opportunity for them to shine. In my experience, it is times like this that the Facility Management department will earn the respect of the organization, employees, and visitors. And if you already have earned that respect, it will be a great confirmation. Good Luck.
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