

DRAFT

APPENDIX E
PHYSICAL PLANT

Physical Plant COVID-19 Pivot to Fall Plan

Index

1. Healthy at Work plan for Physical Plant employees
2. Response to COVID-19 cases on campus
3. Hand Sanitizer
4. Physical modifications
5. Custodial services
6. Disinfection in Classrooms
7. Building HVAC
8. Water Systems
9. Building closures
10. Training and Communication
11. Human Resources
12. Flexibility, trigger for change, and exit plan

1. Healthy at Work plan for Physical Plant employees

- a. Reference enclosure 1, "Physical Plant Healthy at Work Plan" which was developed in accordance with Governor Beshear's 10 rules to reopening.
- b. 35,000 washable face coverings will be procured, and one will be provided to each student, faculty, and staff. The stock room will supply face coverings to each unit/department to distribute to individuals.
- c. Each of the 351 units/departments will receive 100 disposable face coverings for visitors and unexpected needs.
- d. Suppliers for the washable face coverings include String King and Reis Promotional, and disposable ones are being procured from Kerr Workplace Solutions and Orr Safety.
- e. 5000 washable face coverings are due to arrive 5/15/2020, which will be distributed to researchers and other essential employees who are on campus this summer. The remaining 30,000 will be ordered 5/15/2020 pending quality verification, with an estimated delivery date of 6/30/2020.

2. Response to COVID-19 cases on campus

- a. Reference Enclosure 2, "Building Operation Procedures for Closure"
- b. Contact investigations and further actions shall be performed in collaboration with Campus Health Services (CHS) and the Department of Environmental, Health, and Safety (DEHS)
- c. Guidelines for appropriate responses for various levels of exposure are needed from CHS and DEHS.

3. Hand Sanitizer

- a. There is no authoritative reference for where hand sanitizer dispensers shall be located. Physical Plant proposes that wall mounted hand sanitizer dispensers will be located at every entrance, elevator, dining facility, and bus stop. Wall mounted dispensers will also be provided in the hallways outside the classrooms, with a backup plan to provide bottles in each classroom if wall mounted supplies are insufficient. This would result in approximately 920 dispensers total on campus in these essential locations. Approximately 600 new wall mounted dispensers are needed.

- b. The location of dispensers and the quantity of sanitizer in a given space must comply with National Fire Protection Association (NFPA) Life Safety Code 101. Reference Enclosure 3, "Fire Safety and Alcohol-Based Hand Sanitizer" from the CDC. Furthermore, the placement of dispensers will be in accordance with Americans with Disabilities Act Accessibility Guidelines (ADAAG).
- c. Hand sanitizer will be installed by Physical Plant, checked daily and refilled or replaced as needed.
- d. Custodians will procure hand sanitizer through the stock room. Two sources, GOJO (existing) and Retailer's Surplus will be used.
- e. The projected demand is based on an estimated 143,000 student-class appearances per week, assuming 1 use per appearance. Department requests for hand sanitizer at other locations will be addressed on a case-by-case basis due to supply chain and physical plant manpower constraints, and responsibility for implementation will likely have to be borne by the department. If other locations are needed or refill demand exceeds projections, additional non-conventional sources will likely need to be considered.

4. Physical modifications

- a. Foot operated door openers are being piloted by SAC. Physical Plant will evaluate adding foot operated door openers to the rest of campus with proposed focus on entrances, classrooms, and other high traffic doors.
 - SAC selected a model that is \$15 each.
 - Quantity ~ 1000 (350 classrooms +2 doors *300 entrances)
 - In bulk quantities, estimated 20 minutes each installation by Physical Plant (\$27/hr)
- b. Plexiglass sneeze guards are available through the Physical Plant. Portable off-the-shelf units or customized installations are available. A 3x3 portable unit with ¼" plexiglass is approximately \$175.00. Add \$25 per foot for wider units.

5. Custodial services

- a. While buildings are closed, custodial services will be scaled back to meet the reduced demand. See Enclosure 4 for current custodial schedule and scope of services in closed buildings.
- b. Routine Disinfection
- c. Disinfection for special cases
- d. Deep cleaning projects summer 2020

6. Disinfection in Classrooms

- a. Disinfectant wipes will be provided in every classroom, with a backup plan to provide Spray bottle disinfectant and paper towels if wipe supplies are insufficient. Departments will coordinate for faculty or students to disinfect classrooms at appropriate times throughout the day.
- b. There are an estimated 350 rooms where classes are held.
- c. Custodians will distribute the disinfectant products to each classroom and refill them as needed as part of their daily duties.
- d. Oxivir 1 wipes and spray are the preferred products and are currently out of stock from the manufacturer, Diversey. The procurement office anticipates that by July the manufacturer will catch up with demand.
- e. Sanicare TBX spray is being used now by custodians.

7. Building HVAC

- a. Buildings that are closed are set to unoccupied mode such that HVAC systems will operate less to conserve resources.

8. Water Systems

- a. Potential threats to water quality during low demand periods include Legionella bacteria and other opportunistic pathogens. The principles to be followed to ensure good water quality is to keep hot water hot, cold water cold, and keep water moving.
- b. Physical Plant is planning to test water quality on campus to ensure that potable water is safe during and following the reduced demand.
- c. Custodians are operating sinks and toilets each time a building is serviced to keep water from stagnating.
- d. Eyewashes and emergency showers are being run monthly per normal frequency.

9. Building closures

- a. DPS and Physical Plant have a list of closed buildings, which are being kept locked, or are open on a modified schedule.
- b. Departments can make changes to the status of a building by coordinating with Mark Watkins.

10. Training and Communication

- a. DEHS and Campus health to lead efforts on training and communication?
- b. Signage to be led by DPS and Cannon? Signage, especially on floors, should be coordinated with Physical Plant to ensure cleaning considerations are taken into account.

11. Human Resources

- a. Physical Plant has furloughed many employees due to the reduced operational activity. As buildings re-open and activity increases, departments should coordinate in advance with Physical Plant so these employees can be called back from furlough. Two weeks' notice will be required to call employees back.

Physical Plant COVID-19 Guidelines

The Physical Plant will implement the precautions detailed below in accordance with Governor Beshear's guidance to reopening under the Healthy at Work plan.

1. Continue telework where possible
 - a. University employees who are eligible to telework will continue to do so.
2. Onsite health checks
 - a. Physical plant employees will complete an Employee Self-Assessment Requirements and Attestation form. Employees must sign this one-time form, and return to his/her supervisor.
 - b. By signing the attestation form, employees acknowledge that they are obligated to assess any symptoms they may have on a daily basis before reporting to work. Employees are to notify their supervisor, if they have been in close contact with anyone recently diagnosed with COVID-19.
 - c. Physical Plant will keep a copy of the form in the employee's personnel file.
 - d. If your healthcare provider suspects or has diagnosed that you have COVID-19, contact your supervisor immediately.
3. Universal Face Covers
 - a. Face covers shall be worn by all physical plant employees while with other people and unable to physical distance, and in all common areas.
 - b. Physical Plant will provide face covers or Employees may use their own.
4. Enforce physical distancing
 - a. All persons in the workplace shall maintain 6' physical distance from others whenever possible.
 - b. Supervisors shall assess shop areas, vehicles, and job sites and implement feasible measures to increase physical distancing.
 - c. Ensure proper physical distancing in common areas such as break rooms and clock alleys.
5. Sanitizer/hand wash stations throughout campus
 - a. Physical Plant shall supply soap, hand sanitizer, and disinfectant chemicals
 - b. Wash hands with soap and water frequently or use hand sanitizer if unable to wash hands.
 - c. Shared equipment and other items shall be disinfected between users.
 - d. Avoid touching one's face
 - e. Sneeze or cough into a tissue, or the inside of one's elbow.
6. Physical Plant will work with the Department of Environmental Health and Safety (DEHS) and Campus Health Services (CHS) to collect information on potential COVID-19 exposures in the workplace, assess the hazard, perform contact investigations, and determine other actions warranted. Immediate reporting of possible concerns to the Physical Plant leadership is critical.
7. If you have additional questions or concerns, please speak with your supervisor.

Physical Plant COVID-19 Guidelines

Face Covering Guidance

- ✓ Face covers are to protect others from you.
- ✓ Even while wearing face covers, you shall still keep 6 feet physical distance.
- ✓ Face covers shall not be shared.

Donning and Use

- ✓ Before putting on the face cover, wash your hands properly.
- ✓ Do not touch your face or face cover after putting on the face cover, even when wearing gloves.
- ✓ The face cover should cover your nose and mouth.

Removal and Extended Reuse

- ✓ Remove the face cover, careful not to touch inside or outside surfaces of the face cover.
- ✓ Hang or place the face cover in dry, non-dusty environment, where it cannot become crushed or distorted.
- ✓ Do not hang or store multiple employees' face covers in the same area. (i.e. Personnel can hang in their designated locker, place in designated drawer, etc.)
- ✓ The face covers distributed by Physical Plant should be discarded if they become wet, soiled, or torn.

Building operational procedures when there is a suspected symptomatic COVID 19 case:

1. Notify Campus Health immediately of suspected symptomatic COVID-19 employees or staff currently working on campus.
2. Notify UofL's Department of Environmental Health and Safety (DEHS) immediately of suspected symptomatic COVID-19 employees or staff currently working in campus buildings at 852-5231.
 - a. DEHS will notify Shawn Kenney, Director of Physical Plant Maintenance and Custodial Services.
 - b. If COVID-19 infection of individual (s) is not suspected, Physical Plant will handle any required disinfecting.
 - c. If COVID-19 infection of individual (s) is suspected, DEHS will take point on disinfecting the areas affected with the support of Physical Plant.
 - d. Campus Health Services will also be contacted and consulted with for follow-up.

NOTE: Per Campus Health Services the primary symptoms of COVID-19 are:

- Fever > 100.4
- Cough
- Shortness of breath

3. The area(s) in question will be shutdown pending a determination from DEHS.
 - a. Closure of locations
 - b. Closure of buildings
4. Before any limited or full closure of the building is granted, the Dean/VP is to get approval from the Provost or Chief of Staff and Chief Operating Officer.
5. If limited closure is granted, university campus police will be tasked with securing the designated locations.
6. Dean/VP should create a communication that is time sensitive and appropriate for the situation. Communications and Marketing should review prior to its release.

Physical Plant Sneeze Guards Service

Sneeze guards are the ideal solution for protecting yourself, staff, students and visitors from the rapid spread of airborne bacterial germs caused by sneezing and coughing. Sneeze Guards are designed to act as a physical barrier to stop the spread of germs. These protective acrylic shields are suggested as a defensive barrier that allows for face-to-face interactions in a safe manner.

These sneeze guards have been deployed in a variety of settings: from hospitals, personal desktops, and pharmacies to government agencies, banks, grocery stores, lobbies and reception areas. These protective shields can be used virtually anywhere.

Physical Plant is currently equipped with resources to provide and install the following three different sizes of sneeze guards at your request with lead time of one to two weeks.

SNEEZE GUARD SIZE AND PRICE INFORMATION		
Size	Cost	Lead Time
3' x 3'	\$200	1 – 2 Weeks
4' x 3'	\$225	1 – 4 Weeks
5' X 3'	\$250	1 – 4 Weeks

Note: The lead-time is subject to availability of Material & Labor. As demand goes up for sneeze-guards the price and availability can be affected, also.

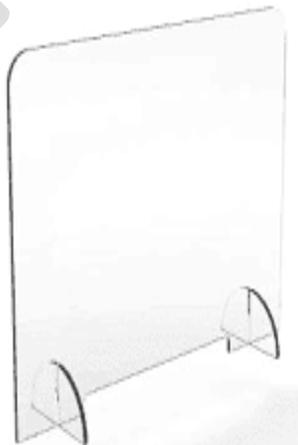
How to place your order:

Please click or paste the link below in your browser to place your request for the installation for a sneeze guard.

<https://louisville.edu/physicalplant/forms/chargeable-service-request>

You may call Work Control Center at 502-852-6241 for any questions or assistance.

Sample pictures of sneeze guards for reference only:



Hand Hygiene in Healthcare Settings

Fire Safety and Alcohol-Based Hand Sanitizer (ABHS)

Hand Hygiene and Fire Safety in Healthcare Facilities Go Hand in Hand

Hand hygiene is a critically important prevention measure in all healthcare settings. Each year between 1 and 3 million residents of nursing homes or skilled nursing facilities develop healthcare acquired infections and as many as 380,000 people die of these infections.¹ Among hospitalized patients, on any given day, about 1 in 31 has an healthcare-associated infection.² Alcohol-based hand sanitizer (ABHS) effectively kills most germs carried on the hands of healthcare workers and is recommended for use by the CDC.

Ensure fire safety when ABHS is used

ABHS contains ethyl alcohol, which readily evaporates at room temperature into an ignitable vapor, and is considered a flammable liquid. Although the incidence of fires related to ABHS is very low, it is vital that ABHS is stored safely and that bulk dispensers are installed and maintained correctly.

Follow local and state fire safety laws and standards

Building officers, local, and state fire marshals work together to protect patients and residents by enforcing fire safety rules.

Fire safety includes activities that

- reduce sources of ignition,
- ensures storage of flammable liquids in a safe manner, and
- establishes methods for quick exits in case of fire.

Building officers and local fire marshal may work together to make sure ABHS dispensers are accessible and in locations that do not increase the chances of igniting or spreading a fire.

Adhere to the the Life Safety Code

Adherence to the National Fire Protection Association (NFPA) Life Safety Code 101 was adopted by CMS as a minimum fire safety requirement for facilities that receive Medicaid or Medicare reimbursement. The Life Safety Code contains national standards for the storage of ABHS, as well as placement and function of dispensers. When facilities use ABHS all of the criteria listed in Table 1 must be met.

Work with your local fire official

Healthcare facilities may contact their local fire officials to ensure that requirements related to the installation of ABHS have been met. Local fire officials often inspect commercial buildings, and may be required to do so. In healthcare facilities, they may be very receptive to planning these tours to meet their requirement, refresh their familiarity with the structure, and identify vulnerabilities. There are several advantages to the healthcare facilities initiating the request of such a tour including building relationships and demonstrating a commitment to safety.



CLEAN HANDS COUNT

HAND HYGIENE AND FIRE SAFETY IN HEALTHCARE FACILITIES GO HAND IN HAND: Alcohol-based Hand Sanitizer Storage and Dispensers

Patients and residents of healthcare facilities stand in awe to keep them safe. Hand hygiene is a critically important prevention measure in all healthcare settings. Each year between 1 and 3 million residents of nursing homes or skilled nursing facilities develop healthcare acquired infections and as many as 380,000 people die of these infections.¹ Among hospitalized patients, on any given day, about 1 in 31 has an healthcare-associated infection.² Alcohol-based hand sanitizer (ABHS) effectively kills most germs carried on the hands of healthcare workers and is recommended for use by the CDC.

Healthcare facilities must ensure fire safety when alcohol-based hand sanitizer is used. ABHS contains ethyl alcohol, which readily evaporates at room temperature into an ignitable vapor, and is considered a flammable liquid. Although the incidence of fires related to ABHS is very low, it is vital that ABHS is stored safely and that dispensers are installed and maintained correctly.

Local and State Officials have authority to enforce fire safety laws and standards in healthcare facilities. Building officers, local, and state fire marshals work together to protect patients and residents by enforcing fire safety rules. Fire safety includes activities that reduce sources of ignition, ensure storage of flammable liquids in a safe manner, and establish methods for quick exits in case of fire. Building officers and local fire marshals may work together to make sure ABHS dispensers are accessible and in locations that do not increase the chances of igniting or spreading a fire.

The Centers for Medicaid and Medicare Services (CMS) requires healthcare facilities to follow the Life Safety Code.

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 We have you covered by CDC. The Clean Hands Count campaign is made possible by a partnership between the CDC and National Fire Protection Association.

www.cdc.gov/handhygiene

Hand Hygiene and Fire Safety in Healthcare Facilities 
[PDF – 2 pages]

The Centers for Medicaid and Medicare Services (CMS) requires healthcare facilities to follow the Life Safety Code.

Criteria	Requirement
Hand rub solution	Must not exceed 95% alcohol content by volume. (The Centers for Disease Control and Prevention recommends that ABHS contain at least 60% alcohol.)
Maximum dispenser fluid capacity	1.2 liters (41 ounces, 0.32 gal) for dispensers in rooms, corridors, and areas open to corridors. 2.0 liters (67 ounces, 0.53 gal) for dispensers in suites of rooms separated from corridors.
Maximum quantity in aerosol containers	18 oz., limited to Level 1 aerosols as defined by NPFA 30 B.
Maximum quantity of ABHS allowed in-use (i.e., in dispensers)	Ten gallons (37.8 L) in-use outside of a storage cabinet within a single smoke compartment. (Smoke compartment: A space within a building enclosed by smoke barriers on all sides, including the top and bottom. ⁵) One dispenser per room off corridors is NOT included in the calculation.
Minimum corridor width	Six feet (1830 mm) wide
ABHS dispenser distance from ignition sources	One-inch (25 mm) distance (horizontal or vertical) above, to the side, or beneath an ignition source. (Sources of ignition: Appliances or equipment that, because of their intended modes of use or operation, are capable of providing sufficient thermal energy to ignite flammable gas-air mixtures. ⁵ Examples include wall outlets, thermostats, and appliances.) Note: While one-inch is acceptable, a more conservative approach is to ensure a distance of no less than 6 inches (12.7 mm; horizontal or vertical, measured from the center of the dispenser) between ABHR dispensers and source of ignition.
ABHS dispenser separation	Horizontal spacing not less than 48 inches (1220 mm).
Carpeted areas	The smoke compartment must be equipped throughout with an approved automatic sprinkler system.
Operation of the dispenser	The dispenser shall: <ul style="list-style-type: none"> • Not release its contents except when the dispenser is activated, either manually or automatically by touch-free activation. • Not dispense more solution than the amount required for hand hygiene consistent with label instructions. • Be designed, constructed and operated in a manner that ensures accidental or malicious activation is minimized. • Be tested in accordance with the manufacturer's care and use instructions each time a new refill is installed. Any activation of the dispenser shall only occur when an object is placed within 4 inches (100mm) of the sensor. An object placed within the activation zone and left in place shall not cause more than one activation.
Storage outside of dispensers	In each smoke compartment, do not store outside of dispensers more than 5 gal (18.9 L) or an amount of ABHR that exceeds that which is necessary for normal maintenance of the area, whichever is less.
Maximum quantity for storage in a warehouse	Up to 120 gal (460 L). If need to exceed storage of 120 gal (460 L), consult with fire official. ⁴

*Smoke compartment: A space within a building enclosed by smoke barriers on all sides, including the top and bottom.⁵

**Sources of ignition: Appliances or equipment that, because of their intended modes of use or operation, are capable of providing sufficient thermal energy to ignite flammable gas-air mixtures.⁵ Examples include wall outlets, thermostats, and appliances.

References

1. Nursing Homes and Assisted Living (Long-term Care Facilities [LTCFs])
2. [HAI Data](#)
3. National Fire Protection Association (NFPA). *NFPA 101 Life Safety Code* [\[\]](#) . 2018 edition. Quincy, MA: National Fire Protection Association; 2018.
4. *NFPA 30 Flammable and Combustible Liquids Code* [\[\]](#) . 2018 edition. Quincy, MA: National Fire Protection Association, 2018. Available at
5. NFPA Glossary of Terms [PDF – 2052 pages] [\[\]](#) . Updated February 2019. Accessed February 14, 2019.

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Custodial Frequencies and Guidelines for Closed/Locked Buildings

Building service for closed and/or locked buildings due to the COVID-19 related health concern is limited to the services described below on the schedule provided in the following pages. Staff are to follow the guidelines below unless specifically approved by management on a case by case basis. The number of custodial staff on campus is limited and resources must be carefully allocated to provide basic service as directed.

- All exterior and interior doors are to remain closed and locked (unless exception noted)
- All doors are to be secured after unlocking to access to lightly service building if needed
- Lights are to be turned out when leaving any area we have entered to service

CLOSED BUILDING SERVICE

- Restrooms
 - o Floors cleaned and mopped
 - o Trash emptied, replace liners
 - o Product dispensers checked and refilled as necessary
 - o Toilets/sinks/mirrors, urinals, stalls cleaned and wiped down
 - o Sanitary napkin receptacles emptied (replace wax bag)
 - o Flush all toilets, urinals, run water in sinks for 30 seconds
- Common Spaces
 - o Quick tour of areas with vacuum or debris pick up as needed
 - o Dust mop/ sweep floors
 - o Check trash/recycling and remove contents, replace liners
 - o Check and remove trash from kitchenettes/ break areas
 - o Clean water fountains
- Offices
 - o Empty recycling if half full or more
 - o Vacuum/ damp mop if needed only (1x/week)
- Classrooms
 - o Empty trash/recycling (1x/week)
 - o Dust mop/ spot mop if needed (1x/week)
- Locker Rooms
 - o Quick tour of areas with vacuum or debris pick up as needed
 - o Check trash/recycling and remove contents, replace liners
 - o Flush all toilets, urinals, run water in sinks for 30 seconds
- Exterior
 - o General clean up of debris and trash
 - o Empty trash cans at exterior if needed, replace liners
 - o Dock and dumpster areas cleaned and swept

Scheduled custodial service days for closed buildings

Campus	Bldg. #	Building Name	Service Days
Belknap		Administrative Annex	T/R
Belknap	106d	AMCC	T/R
Belknap		Bass Rudd Tennis Center	W
Belknap		Belknap Academic Building	M/T/W/R/F
Belknap		Bingham Humanities	M/W/F
Belknap		Brigman Hall	T/R
Belknap		Center for Urban and Economic Research	T/R
Belknap		Chemistry	M/W/F
Belknap		College of Business	M/W/F
Belknap		Davidson Hall	M/W/F
Belknap		Dougherty Hall	T/R
Belknap		Duthie Center	T/R
Belknap		Early Learning Center	T/R
Belknap	107	EHS Main	T/R
Belknap		Ekstrom Library	M/W/F
Belknap	106c	Engineering Garage	T/R
Belknap		FirstBuild	T/R
Belknap		Ford Hall	T/R
Belknap		Gardiner Hall	M/W/F
Belknap		Gottschalk Hall	T/R
Belknap	1	Grawemeyer	M/W/F
Belknap		Grawemeyer Hall	M/W/F
Belknap	100	Grounds	T/R
Belknap		Honors Building	T/R
Belknap		Houchens	M/W/F
Belknap		HR and Get Healthy Now	W
Belknap	102	Hughes NE Service Center	M/T/W/R/F
Belknap	104	Hughes Shops	T/R
Belknap	101	Hughes warehouse	T/R
Belknap	106	Human Resources	W
Belknap		J.B. Speed School	M/W/F
Belknap		Kueber Center/Yum Practice Facility	F
Belknap		Law School	M/W/F
Belknap	155	Lee Street Building	M/W/F
Belknap		Life Sciences	M/W/F
Belknap		Lutz Hall	T/R
Belknap		McCandless Hall	T/R
Belknap		MITC	T/R
Belknap		Natatorium	TH

Belknap		Natural Sciences	M/W/F
Belknap		Oppenheimer	T/R
Belknap	103	Paint Shop	T/R
Belknap		Parking Office	T/R
Belknap		Patterson Hall	T/R
Belknap		Playhouse	T/R
Belknap		Porter Building (College of Education)	M/W/F
Belknap	39i	Red Barn	M
Belknap		SAC	M/T/W/R/F
Belknap	16	SAC	M/W/F
Belknap		Schneider Hall	T/R
Belknap		School of Music	M/W/F
Belknap		Shumaker Research Building	M/W/F
Belknap		Snyder Hall	???
Belknap		Stevenson Hall	T/R
Belknap		Strickler Hall	M/W/F
Belknap		Studio Arts/HPER Bldg/Thrust	M/W/F
Belknap	22	University Club	F
Belknap	89	UPDC	M/W/F
Belknap	43	Urban Affairs	T/R
Belknap		W.S. Speed School	M/W/F
HSC		Chestnut St Parking Garage	M/W/F
HSC		Kornhauser Library	M/W/F
HSC		K-Wing	T/R