Duke FACILITIES MANAGEMENT

Re-Opening Toolkit Table of Contents

We have created the Duke Facilities Management **Building Re-Opening Toolkit** to assist our customers, Duke's Return to the Workplace (RTW) coordinators and to be used in conjunction with <u>Duke's Guide for Returning to the Workplace</u>.

Re-Opening Plan for University Buildings

Building Re-Opening FAQs

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General Guidelines for the Installation of Tents on Duke University's Campus

Please note:

- Facilities Management has worked closely with <u>Duke Occupational & Environmental</u> <u>Safety Office (OESO)</u> to review the important factors in maintaining safe facilities, and to plan accordingly in developing the necessary protocols to re-open buildings once they have been approved for re-opening by Duke University administration.
- Also, Duke's Facilities Management Department is operating with reduced staffing on campus. We will increase staffing as needed to support the re-opening of Duke's facilities.
- These FAQs will be updated on an ongoing basis as needed.

RE-OPENING PLAN FOR UNIVERSITY BUILDINGS

Like all individuals and organizations, Duke University has experienced a significant shift in operations over the past weeks and months related to the COVID-19 pandemic. As we work together to reopen University Buildings Facilities Management remains dedicated to its mission of creating and maintaining Duke's tomorrow, today. In re-opening buildings and facilities, safety will continue to be paramount.

Outlined below is an overview of our university building re-opening plan. The operations outlined here will be carried out by Duke Facilities Management in partnership with key stakeholders. We appreciate your patience and collaboration.



CLEANING & DISINFECTING

Cleaning, disinfecting of spaces and ongoing enhanced cleaning

- □ Maintain cleaning and disinfecting practices in accordance with CDC & OESO approvals
- Perform cleaning of indoor spaces that have been unoccupied
- Perform routine clean and disinfecting of spaces that have been occupied
- □ Perform enhanced cleaning and disinfecting of frequently touched indoor surfaces
- **D**isinfect areas if possible cases arise, per direction from OESO and Employee Health
- □ Maintain routine cleaning practices of outdoor areas
- Perform routine cleaning of university labs* and provide cleaning supplies as available
- Provide breakrooms with cleaning products, as supplies allow
- Maintain hand-sanitizer stations at major building entrances, elevator stops and high-traffic areas

*Does not include SOM wet labs.



PREPARE THE BUILDINGS **Operational pre-return**

inspections, HVAC & mechanicals checks

- Ready building mechanical, electrical, plumbing and monitoring systems
 - Flush domestic water lines
 - Reset building temperatures and control systems
- Install hand sanitizer stations in designated locations Perform necessary building
- inspections and repairs Ready central utility plants for
- increased building demand



PREPARE THE GROUNDS

Maintain safe, clean and healthy landscape and grounds

- Inspect areas around buildings for trash and debris and remove accordingly
- Ensure all building entrances and loading docks are clear of litter and debris
- Continue to mow lawns and fields
- □ Inspect parking lots and clear of litter and debris
- Maintain shrubs and flowers (in reduced number of locations)
- Continue tree management and care
- Maintain off-campus properties



SUPPORT DISTANCING SPACE LAYOUTS

Assist customer / occupant social distancing practices for decreasing density, adjusting traffic patterns

- Support facility space usage changes for social distancing in accordance with Duke's *Guide for Returning to the Workplace*
- □ Assist customers in evaluating reduction in capacity of spaces e.g., decreasing chairs in a conference room
- Provide necessary signage regarding the importance of social distancing, as needed



OVERSIGHT OF CONTRACTORS AND VENDORS

Campus building and maintenance contractors

- Engage contractors and vendors in back-to-work plan
- **I** Ensure continued compliance by contractors of the on-campus work protocols for construction
- **Ensure indoor and outdoor** construction projects are being inspected by Facilities staff for compliance
- Facilities Management staff will abide by the protocols for healthy working conditions and behaviors in accordance with Duke's Guide for Returning to the Workplace and as developed and directed by OESO.
- Facilities management staff is currently working in a reduced staffing plan mode including rotating shifts, working remotely and will modify as building open.
- This plan will be monitored and updated as needed. Please check our website for plan updates and answers to FAQs.







CUSTOMER / OCCUPANT RESPONSIBILITIES

Recommended customer / occupant actions

- Review, share, and monitor compliance with Duke's Guide for Returning to the Workplace
- Reconfigure indoor and outdoor spaces to allow for social distancing
- Assist in identifying high-use entrances and traffic areas
- □ Remove and/or clean high-touch shared tools such as computer keyboards, whiteboard markers, remote controls, etc.
- □ Assist in controlling the building entry points, including deliveries
- Comply with signage guidelines

Duke Facilities Management

Cleaning Supplies: (919) 613 - 0720

Distancing Support: (919) 660 - 1483

Other: Request a Service online or call (919) 684 - 2122



GENERAL

When will my building be re-opened?

Buildings re-opening dates will be determined by Duke University administration. Facilities Management does not determine the order of building re-opening.

How long will it take to have my building re-opened, and what steps do I need to take?

There is a two-week timeline for Facilities Management to prepare the building for re-opening. Please refer to the **Two-Week Re-Opening Building Task List** for the detailed steps to be undertaken by both customers and Facilities Management prior to building re-opening.

1. CLEANING & DISINFECTING

1.01 What's the difference between cleaning and disinfecting as well as routine versus enhanced cleaning?

Cleaning is defined as using soap and water to remove dirt and impurities.

Disinfecting is defined as killing germs on a surface.

Routine cleaning is defined as our standard cleaning and disinfecting process.

Enhanced cleaning is defined as disinfecting high-touch indoor surfaces in high-traffic areas that have been *occupied*. It has been outlined by OESO based on the CDC guidelines. Details are included in the document, **Enhanced Cleaning for Touch Surfaces Protocol**.

1.02 What cleaning and disinfecting will be performed by Duke Facilities Management?

In addition to routine cleaning, we will perform enhanced cleaning. Some routine cleaning tasks will be modified to accommodate the need for enhanced cleaning, and be focused on key spaces, such as classrooms and restrooms. It is likely that office cleaning tasks will be modified to accommodate the enhanced cleaning. Please refer to the details listed under *Cleaning & Disinfecting* in the **Re-Opening Plan for University Buildings**.

1.03 What about university classrooms?

All classrooms used during the day will be cleaned and disinfected once each day. The time of the routine clean will be determined by the class and housekeeping staff schedules. If time allows, based on the size of the classroom and availability of staff, some classrooms may receive additional cleaning during the day. Enhanced touch point cleaning of surfaces will continue during regular shifts by housekeepers. These efforts are focused in high traffic areas. Pending supply chain and the ability to procure them, cleaning and disinfecting supplies will be



made available for students and faculty to use as needed. Hand sanitizer stations will be provided near classrooms.

1.04 What supplies will Facilities Management provide for customers to clean and sanitize their buildings?

Facilities Management will provide customers with building hand sanitizer dispensers, as well as spray cleaner to clean surfaces in break rooms/lounges after use. The spray bottles will be given to the Duke Return to the Workplace (RTW) coordinators for placement around buildings. For spray bottles and sanitizer refills, please contact uevs@duke.edu or (919) 613-0720. Please note, disinfectant wipes are in short supply and may be provided on a limited basis

1.05 Where are the hand-sanitizer dispensers that were installed in the restrooms?

Existing hand-sanitizer dispensers are being redeployed to building entrances and elevator areas as recommended by OESO, because they are not needed in areas where soap and water are available for proper hand-washing.

1.06 How will labs be cleaned?

Routine cleaning of university labs will be performed as requested by the department. Note that there are some labs where housekeeping staff is not allowed to enter. Please refer to the Cleaning & Disinfecting section on the Re-Opening Plan for University Buildings.

1.07 What happens when a possible case of COVID-19 has been identified in a building?

In accordance with Employee Occupational Health & Wellness (EOHW), all possible cases of COVID-19 are reported for contact-tracing.

1.08 Will we be provided with cleaner for sanitizing keyboards, mice, and other classroom items?

Facilities Management does not clean these items. Please either remove high-touch shared tools such as computer keyboards, whiteboard markers, remote controls, etc. or review the specs for a particular item to find a chemical that properly disinfects it or contact OIT for more information.

1.09 Should we disinfect furniture upholstery?

Facilities Management does not use any product specifically designed to treat upholstered furniture at this time. We, along with OESO, recommend that your group considers removing or replacing furniture with surfaces that can be easily disinfected, or closing off entire seating areas if possible.



2. PREPARING THE BUILDINGS



2.01 Does anything need to be done to building HVAC systems?

Building HVAC systems are a low risk method of transmission. The American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) and the CDC have identified a number of strategies that could improve indoor air quality (IAQ) and reduce the chance of viral spread in a building's HVAC system. These strategies fall into four broad categories: **Filtration, Ventilation, Irradiation** and **Humidification.** The university has several types of buildings, varying widely in size, age and complexity. Consequently, there are many different types of HVAC systems in the buildings. These systems include central air, fan-coil units, small split systems and unitary appliances. Our building HVAC systems are maintained on preventative maintenance schedules for optimum performance and reliability, but not all of the strategies listed above can be applied equally to our varied buildings and HVAC systems. **Best practices for preventing the spread of COVID-19 remain to practice social distancing, hand hygiene, universal masking and surface cleaning.**

Below is additional information as it relates to the four strategies and how FMD has integrated them into our HVAC systems.

Filtration

MERV13 filters are recommended. For many years MERV13 has been the Duke University standard for new construction and major renovation projects. Additionally, FMD continues to review existing equipment and install MERV13 filters in existing buildings wherever the equipment will accept them. That said, there a plenty of older buildings that have lower MERV filters that cannot accept more efficient filters without major modifications or replacing the equipment entirely.

Ventilation

The primary objective of this strategy is dilution. Increasing circulation or air changes does not necessarily increase dilution. Only increasing outside air (OA) and mixing it with air recirculating in the building increases dilution. Wherever building systems permit, FMD has increased OA by eliminating demand control ventilation and eliminating setback schedules – essentially driving OA to the maximum setting.

Irradiation

It has been shown that UV treatment within the HVAC system can render the virus inactive. In the past, FMD has deployed this technology in a few spaces on campus to mitigate biological grown, primarily mold, with good results. Unfortunately, deploying this technology within existing buildings and existing HVAC systems is complicated requiring lengthy system shutdowns to implement while yielding very small reduction in risk of viral spread.

Humidification

It has been shown that the virus may be more easily spread at lower humidity levels and maintaining 40-60% RH is recommended. Fortunately for most of the year in NC that is not a problem, as we a generally dehumidifying our buildings to get the down to 50% RH. Due to the climate in NC, most buildings on campus were not designed with the capability to add humidity. The addition of a humidification system within an existing building runs the risk of creating other problems – primarily biological growth. Generally we don't start seeing low-humidity until the colder winter months, and with our modified academic schedule, we anticipate much lower occupancy on campus during much of that period.

2.02 Is opening windows or introducing outdoor air into the indoor environment effective in reducing the risk of contracting COVID-19?

General research, the Centers for Disease Control (CDC), and industry guidance have recommended and demonstrated that increasing the contribution of conditioned and filtered outdoor air with a mechanical ventilation system into the indoor environment helps to decrease indoor environmental contaminants. As such, the current heating, ventilation, and cooling (HVAC) systems throughout Duke have been optimized to run as efficiently as possible. We have increased both the contribution of outdoor air into the indoor environment and the filtration efficiency, wherever applicable.

Conditioned HVAC air helps occupants by providing thermal comfort within the indoor environment, which – in turn – decreases the chance of thermal stress and the subsequent potential negative health outcomes/responses. The hot and humid environment in North Carolina requires conditioning of the outdoor air before entering the indoor environment as the relative health and safety risks (high relative humidity, ozone, particulate matter, etc.) from introducing unconditioned outdoor air far outweigh the benefits.

Over the years, Duke University has undertaken an extensive program of upgrading the HVAC systems within residence halls and other spaces with the intent to optimize the indoor air quality as much as possible. These efforts have included sealing the exterior windows and doors to discourage occupants from opening them so that the HVAC system can function as intended by providing filtered, conditioned air, thereby reducing the chance of exposure to the virus that causes COVID-19.

2.03 Does anything need to be done to clean or disinfect building plumbing systems?

Facilities Management has been flushing the water distribution lines, and flushing building water systems will be performed prior to occupancy. Please refer to our **Re-Opening Plan for University Buildings** and **Two-Week Re-Opening Building Task List**.

2.04 Who will provide and post building signage?

This is a shared responsibility. Duke Emergency Management has developed building signage for customers, available <u>here</u>. Facilities Management will post occupancy limit signs on elevators, water fountains and restrooms. Per department, building customers/occupants – in coordination with RTW coordinators – will be responsible for posting occupancy, social



distancing and related signage in their respective buildings, based on social the guidelines outlined in **Duke's Guide for Returning to the Workplace** and Facilities Management social distance layout support (see 4.1). Additionally, Duke RTW coordinators can order stickers for social distancing <u>here</u>.

2.05 Will Facilities Management replace bathroom fixtures to automatic models?

At the guidance of OESO, Facilities Management will not replace faucets or paper towel dispensers. Please refer to the **Duke's Guide for Returning to the Workplace** for proper handwashing techniques.

2.06 Will Facilities Management remove or disable electric hand dryers in restrooms?

In restrooms that have them, Facilities Management will place signage on electric hand dryers to indicate they are not to be used. Paper towels will be provided for drying hands after washing.

2.07 What is recommended for building water fountains and water bottle filling stations?

According to the CDC, there is no evidence suggesting you can be infected with COVID-19 through drinking water. Drinking fountains and water bottle refill stations on campus can remain open. However, we suggest they only be used for filling bottles and cups, rather than drinking directly from the fountain. Instructional signs will be installed at the water fountains and the bottle fill stations.

2.08 What if additional hand sanitizer dispensers are needed in my area or building?

As part of Duke's Return to Campus framework, Facilities Management has installed handsanitizer stations at major building entrances, elevator stops and high-traffic areas — especially in areas proximate to classrooms. If you feel that additional sanitizer dispensers are required, and the area meets the criteria noted above, please direct requests to your unit's Return to Work Coordinator.

3. PREPARE THE GROUNDS



3.01 Is there anything that needs to be done currently to prepare the campus grounds for building re-opening?

No. Grounds have been and are currently being maintained. Any grounds-related needs should be conveyed online through <u>Request a Service</u>, or by calling (919) 684-2122.



4. SUPPORT DISTANCING SPACE LAYOUTS



4.01 Should break rooms, kitchens, and/or common areas remain closed? Is that a department responsibility/decision?

Departments are responsible to determine the use of their space in compliance with Duke's social distancing guidelines outlined in **Duke's Guide for Returning to the Workplace**. Please refer to the *Customer Responsibilities* section on the **Re-Opening Plan for University Buildings**.

4.02 What if we need assistance reconfiguring spaces for social distancing?

If assistance is needed to reconfigure building spaces to comply with the social distancing guidelines outlined in **Duke's Guide for Returning to the Workplace**, please contact Adem Gusa in Facilities' Office of Project Management at <u>adem.gusa@duke.edu</u> or (919) 660-1483.

4.03 Are shields (Plexiglas or similar material) recommended at counters or in classrooms?

These shields are not recommended because they do not reduce risk in any scientifically demonstrated way, or allow a reduced social-distance metric. Current recommend guidance continues to be social distancing of six feet, hand hygiene and universal masking.

4.04 How is maximum capacity for a restroom determined?

Maximum capacity for a restroom is equal to the number of sinks in that restroom.

4.05 Do we need to make stairs and hallways "one-way" for building traffic circulation?

Designating stairs and hallways should not be done for two reasons. (1) Building traffic is very low-risk for virus transmission, and (2) one-way directional designations may violate compliance with building fire codes.

4.06 Do departments have to move and store their furniture to allow for social distancing?

There is not requirement to store furniture. This should be assessed on a room-by-room basis. There are some rooms where the furniture can remain and be marked with the appropriate stickers (provided by Facilities), to indicate what can be used or where one can sit. Secondly, a department can look for storage within their building, such as empty offices or unused conference rooms into which they can move and store their furniture locally. Please remember that storage in hallways and stairwells is prohibited due to fire codes. Lastly, if moving and storage is needed off-campus, please contact Mary Crawford, Senior Director for Procurement & Supply Chain, at mary.b.crawford@duke.edu or (919) 613 - 8352.



4.07 Are foot-pull hardware devices installed on doors recommended?

No. The installation of foot pulls on doors is prohibited because they present potential physical safety issues for building occupants. Practicing proper hand hygiene remains the recommended virus-prevention protocol for shared spaces where touch surfaces are present.

5. OVERSIGHT OF VENDORS & CONTRACTORS



5.01 Has Facilities Management communicated COVID-19 work protocols with vendors and contractors?

Yes. Since the Duke's COVID-19 response in March, Facilities Management has provided clear instructions to vendors and contractors regarding the required protocols for on-campus workers. These protocols are congruent with **Duke's Guide for Returning to the Workplace** for symptom self-checks, hand-washing, masking and social distancing.

6. CUSTOMER / OCCUPANT RESPONSIBILITIES



6.01 What responsibilities exist for customers/occupant?

Customers/occupants are responsible complying with the practices and tasks outlined in **Duke's Guide for Returning to the Workplace** and Facilities Management's **Re-Opening Plan for University Buildings**.

6.02 How do I get face masks?

Mask orders will be placed by RTW coordinators only. The links to order masks have been provided in the Box materials for that group.

Enhanced Cleaning Protocol for Touch Surfaces

For indoor spaces that have been *occupied* during the COVID-19 campus closure. Performed as recommended by OESO, two to three times daily, pending housekeeping shifts and building usage.

Locations	Tasks
 Conference Rooms Classrooms Study Rooms Student Lounges Kitchen Areas Student Rooms Breakrooms Labs Shops Patient Rooms Nursing Stations Lactation Rooms 	 Light switches (if manual) Exterior/interior doorknobs/push handles Chairs/tables/counter tops Exterior/interior glass windows on doors Sink faucets and dispensers Microwave handles and buttons Refrigerator handles Drawer shelf handles and knobs Buttons on food/drink vending machines
 Bathrooms Locker Rooms 	 Light switches (if manual) Exterior/interior doorknobs/push handles Stall door handles and door locks Countertops Sink faucets/toilet fixtures/dispensers
 Corridors Common Areas Entrance Ways Staircases 	 Light switches (if manual) Buttons on food/drink vending machines Exterior/interior elevator buttons Exterior/interior handrails Water fountains

Measures to Minimize Spread of Covid-19

Highest

Effectiveness

Social Isolation/Remote Working Staying home, avoiding contact

Testing/Contact Tracing Symptomatic and surveillance testing,

ymptomatic and surveillance testin rigorous contact tracing

Social Distancing/Face Covering Keeping 6 feet apart, staggering schedules, wearing face mask or cloth covering

Washing/Cleaning Hand hygiene and surface disinfecting

> Communication and Buildings Signage and awareness program, HVAC optimization



Draft 8-19

DU FMD Signage

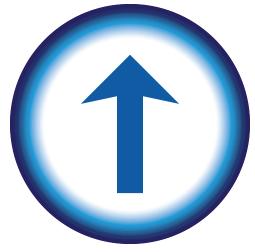
Link to Order: https://duke.qualtrics.com/jfe/form/SV_4G6zrLKfBPwZ7hP



Check Circle 3" Removable Graphic **\$ 0.95 each**



X Circle 3" Removable Graphic **\$ 0.95 each**



Directional Circle 6" Removable Graphic \$ 1.75 each

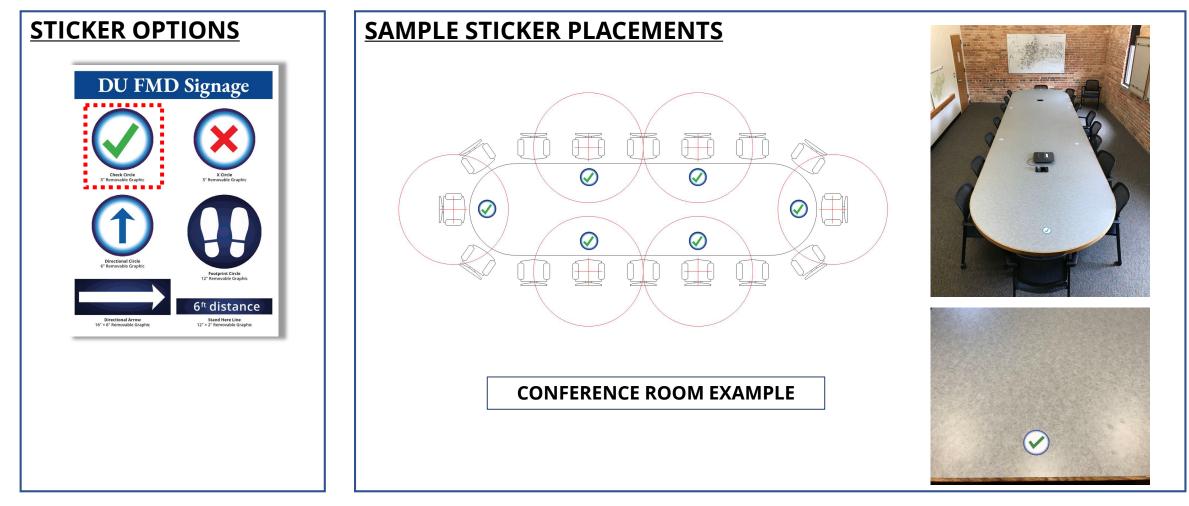


Footprint Circle 12" Removable Graphic **\$ 4.95 each**

6^{ft} distance

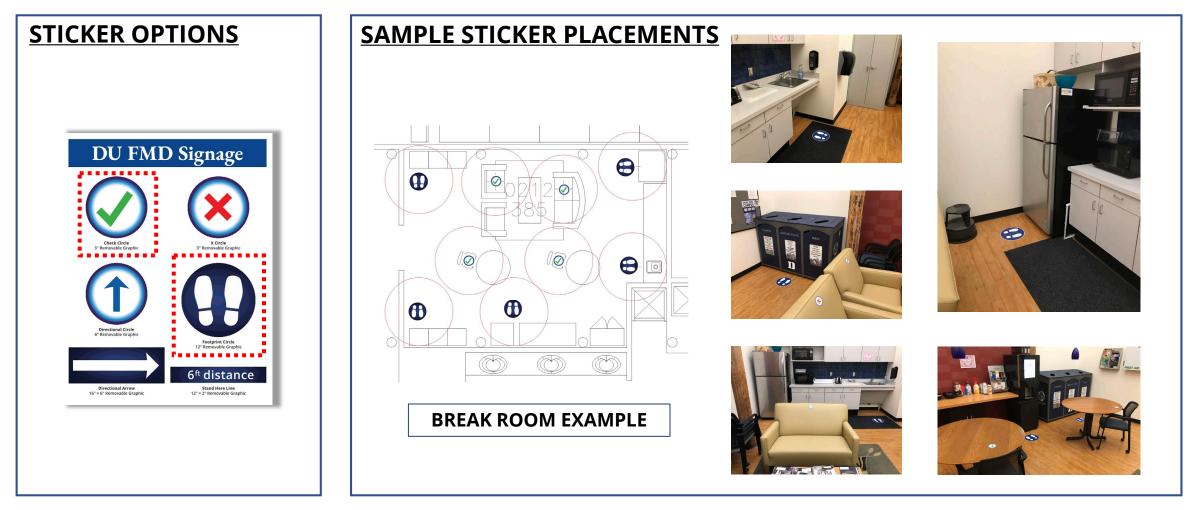
Stand Here Line 12" × 2" Removable Graphic \$ 1.95 each

Directional Arrow 16" × 6" Removable Graphic **\$ 4.95 each**



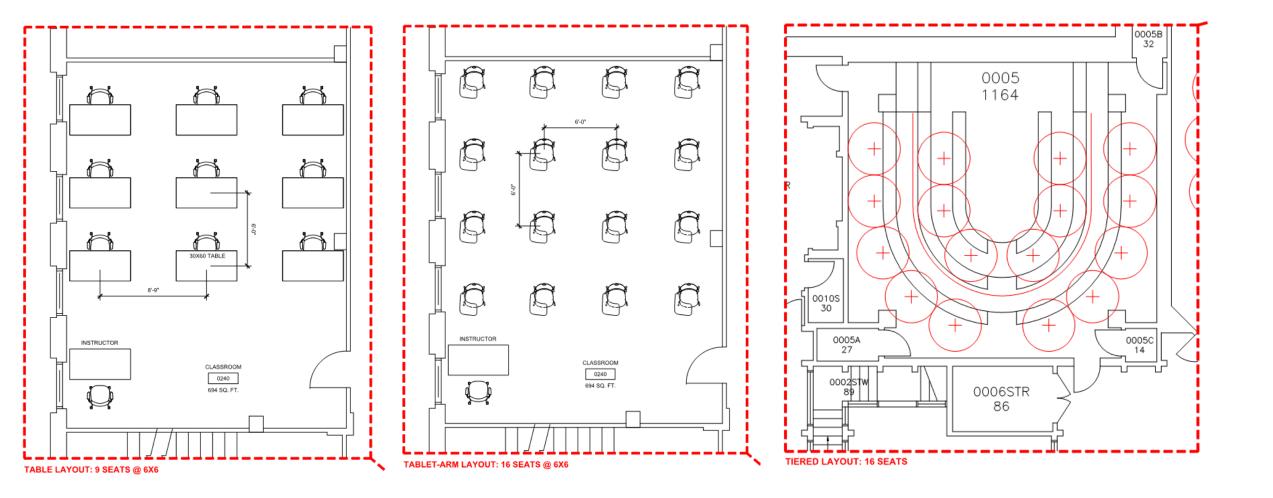
Link to Sticker Order: https://duke.qualtrics.com/jfe/form/SV_4G6zrLKfBPwZ7hP

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GENERAL GUIDELINES FOR THE INSTALLATION OF TENTS ON DUKE UNIVERSITY'S CAMPUS

This guide is has been developed to provide information on considerations and impacts regarding the installation of tents on campus during the COVID-19 pandemic. This applies to tents scheduled to be installed for more than 14 days.

TYPE & LOCATION:

The type of tents available are depicted in the picture to the right. The tents will have a floor but no sidewalls, although screens are allowed. The tents must allow for proper airflow to minimize the transmission of the COVID-19 virus. Locations need to consider health and safety, pedestrian access and proper placement to avoid damaging underground utilities, facilities or landscaping.

The programmatic need and the siting for tent structures must be reviewed and approved by senior administration and Facilities Management prior to installation. All costs are to be covered by the schools and departments. High-visibility or sensitive locations, including but not limited to the lawns of Abele Quad, Alumni Center and East Campus Quad, are prohibited.



TECHNICAL CONSIDERATIONS:

STRUCTURAL ANALYSIS – Calculations must be provided by a licensed engineer to ensure that the structure is properly designed and anchored to avoid possibility of the tent being pulled from its anchors during high winds, or collapsing under the loads of rain or snow.

EMERGENCY SERVICE ACCESSIBLITY – Tents should be located to allow unobstructed access for emergency vehicles. Note that fire lanes must be maintained at all times as per requirements of local Fire codes. Driving lanes in parking lots must be maintained.

ADA ACCESSIBILITY – Tents should be placed at locations that will allow easy access for disabled users (i.e. hard and flat surfaces are preferable to limit the need to build sidewalks or ramps for access). Installation of sidewalks may be required to meet ADA codes.

UTILITY INFRASTRUCTURE – Tents should be located as close as possible to existing electrical infrastructure to allow access to power for the structure without the need for long runs of cabling. Generators will not be allowed, based on the duration of the time the tent is in place, as well as the noise and exhaust concerns. Facilities Management will provide consulting on a case-by-case basis to determine the cost and impact of providing electrical service.

LANDSCAPING – Tents should be located to avoid damage to landscaping. Removal of existing grass turf is required to install the flooring, and to avoid an unpleasant odor. Installation of an erosion-control system ,or provisions for proper drainage, are to be included. A restoration plan must be provided to replace the landscaping after the tent is removed.

HVAC – The use of air conditioning within a tent is prohibited due to the difficulty and cost of providing a code required permanent high voltage power source, as well as the difficulty of maintaining a comfortable environment (humidity and air flow) within an uninsulated tent. To ensure air circulation, tents will not have sidewalls. Fans or spot coolers are allowed. OESO will assist with the placement of fans to ensure the airflow is optimized to reduce the chance of spreading COVID droplets around the tent. If there is a concern with the heat and humidity, OESO will be available to do a heat-stress evaluation for the personnel within the tents.

RESTROOM FACILITIES – Tents should be located within 100 feet of an existing building with restroom access, or a place to wash hands.

LIGHTING – Lighting inside the tent is optional, but may be provided by the tent vendor or a separate lighting consultant. Installation of exterior lighting may be required for safety and security.

OIT/AV – Internet coverage may not be available at all exterior locations of campus. Internet access must be reviewed on a case-by-case basis by OIT. The cabling required to provide AV services must also be reviewed on a case-by-case basis. Consideration should be given to security for AV equipment that may be left unattended in an open tent.

FURNITURE – Departments will be responsible for providing furniture within a tent, and the security thereof.

SOCIAL DISTANCING – All tents must be set up to meet social distancing requirements, including furniture spacing, signage, hand sanitizer stations, etc.

PERMITTING – Depending on the size of the tent, a permit may be needed from the Durham Fire Marshal.

SCHEDULE – Depending on current demand, tent vendors are typically able to provide common tent sizes within four to six weeks. Preparing the site and providing the utilities and other infrastructure can also take several weeks depending the scope of work.

Inquiries for tents can be directed to Facilities Management, Office of Project Management at 919-660-1471. A feasibility and siting evaluation will be conducted.