Steps Forward:
Facilities, Buildings and Grounds

August 13, 2020
AGENDA

• Review Grounding Principles and August 7\textsuperscript{th} CIMT Decision

• Review Risk Mitigation Strategies

• Review Buildings with mixed ventilation capabilities—forced ventilation and no forced ventilation

• Discuss space use for no forced ventilation areas
  • Non-classroom spaces
  • Classroom spaces
Steps Forward → Building Practices

Guiding principles of Steps Forward: Returning to Campus Fall 2020

“The University of Iowa is committed to providing a world-class educational experience for our students and a great place to grow and thrive for faculty and staff. As a guiding principle, the UI recognizes the more an individual interacts with others, and the longer the interaction, the higher the risk of COVID-19 spread.”

https://coronavirus.uiowa.edu/fall-2020
Steps Forward → Building Practices

Primary Decision Drivers

• Focus on risk mitigation not elimination.
• Limit unintended consequences
• Risk mitigation is interdependent: the effectiveness of building and operational practices are directly related to behavior and community health conditions.
• Prioritize by occupancy and time: the more people in a space for longer periods of time represents greater risk.
• Emerging information and recommendations require need for agility and capability for adjustments and change to increase risk mitigation options.
Summary by Classroom Spaces

Forced Ventilation:
Implementation of risk mitigation measures per CDC and ASHRAE

No Forced Ventilation:
Fewer risk mitigation options due to system capabilities

- 92%
- 8%

- Deprioritize class scheduling
Summary by Non-Classroom Spaces

- **Forced Ventilation:** Implementation of risk mitigation measures per CDC and ASHRAE

- **No Forced Ventilation:** Fewer risk mitigation options due to system capabilities
  - Deprioritize class scheduling
  - Emphasize on face covering compliance, hand-washing, social distancing
  - Deprioritize multi-user space utilization for extended periods of time

Pie chart showing:
- 95% of non-classroom spaces
- 5% of non-classroom spaces

Facilities Management

The University of Iowa
Steps Forward: Facilities, Buildings and Grounds

Ventilation

August 2020

Ventilation systems will operate according to CDC Considerations for Institutes of Higher Education. The UI will implement the following strategies:

- Ensure ventilation systems operate properly.
- Facilities Management will coordinate and monitor building occupancy, using data to inform operations.
- Facilities Management will review and assess building systems, including restroom ventilation, before the start of the fall 2020 semester and will carefully monitor building system performance.
- Monitoring, including advanced Fault Detection Diagnostics, will be used to identify changes in operations or conditions that may affect performance or building conditions.
- In addition to ensuring proper operation, operating parameters will be adjusted to increase fresh air mechanically (not open doors or windows), as well as increase filtration levels as system age and capabilities allow.
- Develop communication processes to ensure that information is available to building occupants and coordinators regarding system operations.
- Using FM@YourService, develop a process for addressing concerns regarding ventilation or filtration in campus buildings.
Facilities Management

**Ventilation**

Ventilation systems will operate according to CDC Considerations for Institutes of Higher Education. The UI will implement the following strategies:

- Ensure ventilation systems operate properly.
- Facilities Management will coordinate and monitor building occupancy, using data to inform operations.
- Facilities Management will maintain a database of building occupancy data.

- Operations
- Verification
- Monitoring
- Communication

- Develop communication processes to ensure that information is available to building occupants and coordinators regarding system operations.
- Using FM@YourService, develop a process for addressing concerns regarding ventilation or filtration in campus buildings.
Steps Forward Commitment: Operations

• Upgrade to MERV 13 across all capable AHUs ($475,000). Installation planned prior to start of classes.

• Adjust classroom operations to maximize airflow during occupancy, increasing filtration and fresh air.

• Purge building air daily, by activating the HVAC systems at least two hours prior to occupancy.

As recommended by CDC or ASHRAE
Steps Forward Commitment: Verification

- Extensive operational assessment with focus on classroom spaces - high density priority
- Identify system capabilities related to infection risk mitigation
- Document building level ventilation capabilities in academic and administrative (GEF) spaces
Steps Forward Commitment: Monitoring

- Building Controls Program
- Fault Detection & Diagnostics (FDD) Program
  - 12,000 pieces of equipment
  - 53 buildings
  - 90,000 data points
  - 5-min intervals scanning for early detection faults
- Program Enhancement for additional indicators for Indoor Air Quality monitoring
Steps Forward Commitment: Communication

• Building Coordinator Network engagement
• Return to Campus Unit Planning
• FM@YourService Covid19 enhancement
Spaces without Forced Ventilation:

Additional Risk Mitigation Levers for these spaces

• Additional emphasis on face covering compliance, hand-washing
• Enforce social distancing to 6ft (113 square feet/person) vs. 50% capacity
  • Typical UI office is 150-200 sqft
• De-prioritize multi-user space utilization for extended periods of time
• Arrange seating to limit air flow passing by others in areas with window units
• Portable air purifiers can be beneficial in certain circumstances (vulnerable populations, etc.)

Classrooms without Forced Ventilation:

De-Prioritize these spaces for instructional purposes in accordance with guiding principles
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