



# TEMPORARY HVAC

WHAT HAPPENS WHEN YOUR  
HEATING AND COOLING IS COMPROMISED?

2024 MHCEA SPRING CONFERENCE



# INTRODUCTIONS



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# TODAY'S LEARNING OBJECTIVES

- Continuing patient care during an HVAC outage
- Temporary HVAC system condition evaluation
- Temporary system options depending on the patient care areas served
- Implementation considerations and applications



# HVAC SYSTEM OUTAGES

- Loss of Air Handling System
- Loss of Heating System
- Loss of Cooling System

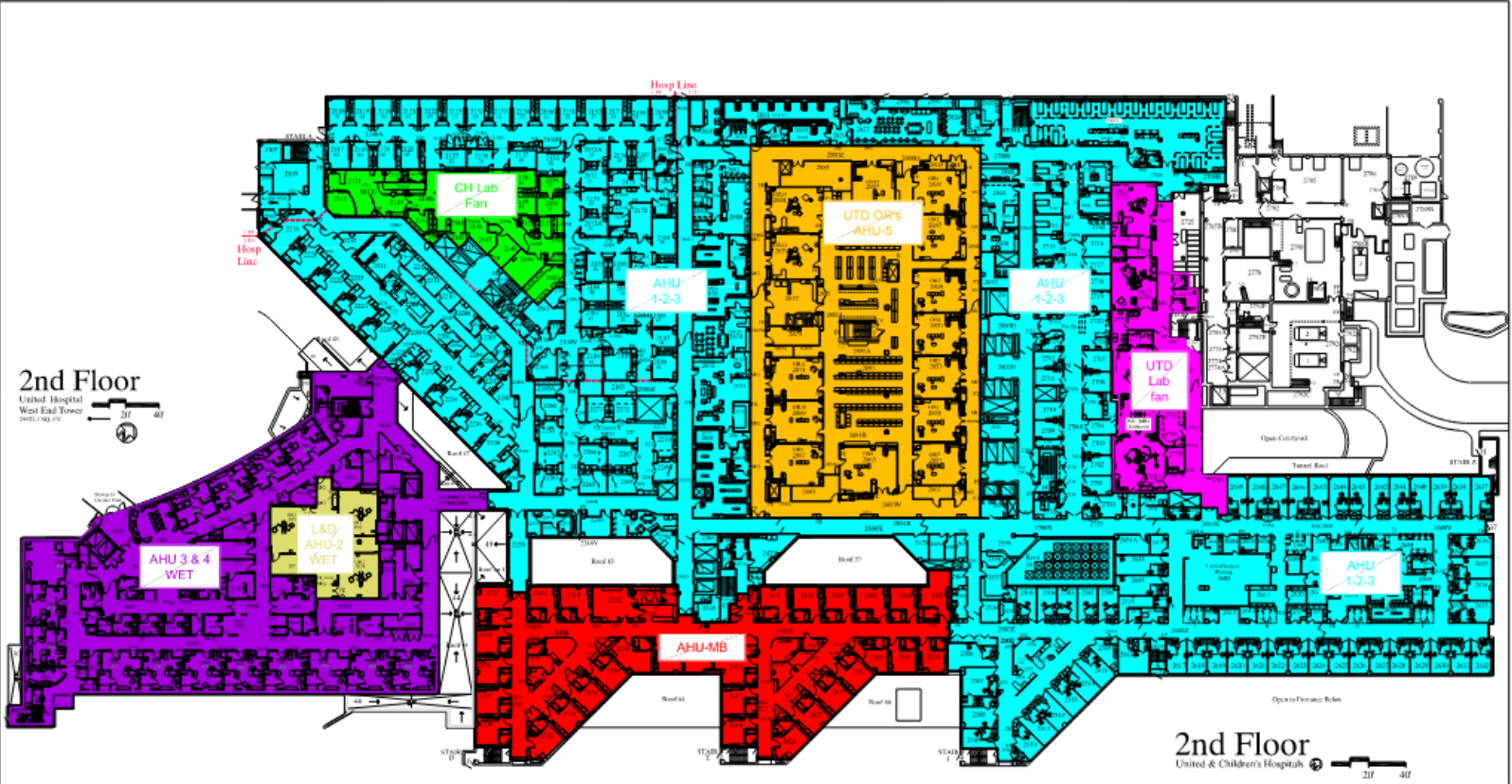


# OUTAGE TYPE

- Planned Outage
  - Maintenance
  - Construction
- System Component Failure
- Pandemic Preparation

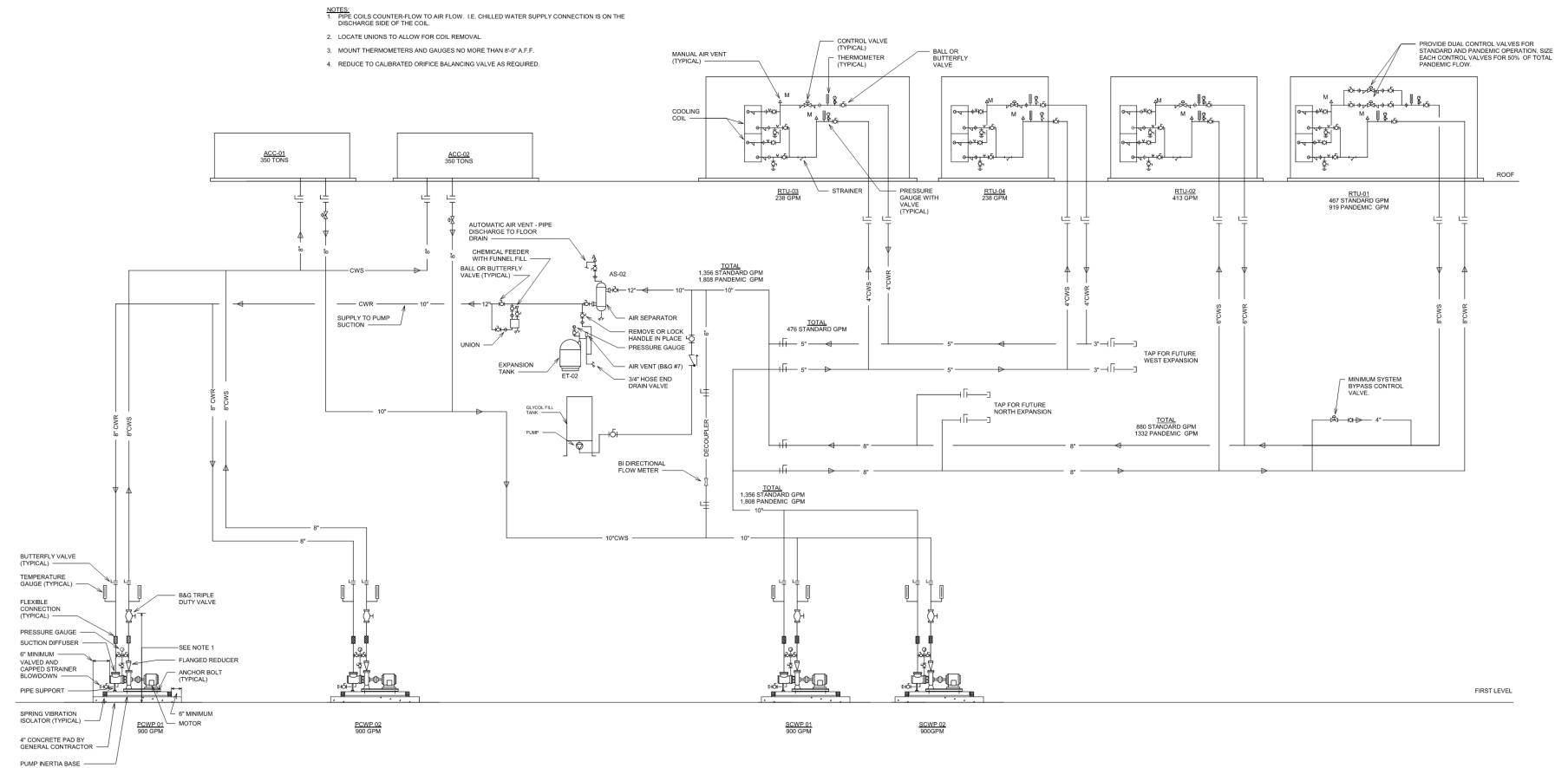
# AIR HANDLING SYSTEM OUTAGE

- Temperature Control
- Ventilation
- Pressurization
- Humidification



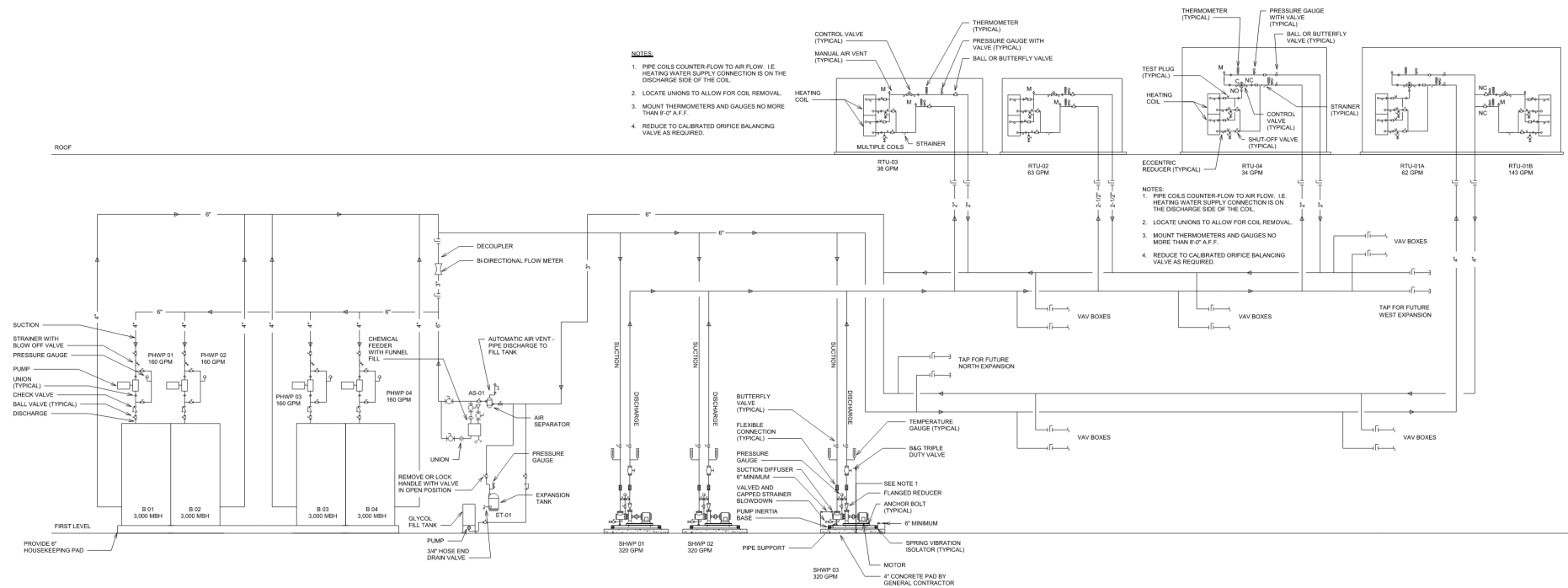
# COOLING SYSTEM OUTAGE

- Temperature Control
- Ventilation
- Pressurization
- Humidification



# HEATING SYSTEM OUTAGE

- Temperature Control
- Ventilation
- Pressurization
- Humidification





# PLANNED OUTAGES

## Implementation Plan

- Identify Expected Duration of Outage
- Identify Type of Area Served
- Identify Critical Space Conditions
- Identify Options for Temporary AHU/Cooling/Heating



# PLANNED OUTAGES

## Implementation Team

- Facilities
- Design Team
- Construction Team
- Nursing Managers
- Infection Control



# PLANNED OUTAGES

## Identify Temporary Services Needed

- Natural Gas
- Temporary Connections to Distribution
- Power
  - Power requirements for a temp unit may be larger than unit being replaced.
  - Might not be able to use existing unit's power
  - Confirm existing capacity on existing equipment
- Fire Alarm
  - Temp unit may have built in fire alarm, but monitoring may be desired.



# PLANNED OUTAGES

## Implement Temporary Systems

- Staff Communication
- Monitoring of Space Conditions
- Monitoring of Temporary Systems
- Back Up Plans



# SYSTEM COMPONENT FAILURE

- Same as a Planned Outage
- Assess the Problem
- Identify the Path to Restarting the Component
- Identify the Timeline for Restart
- Work with a Multidisciplinary Team
- Identify the Temporary Condition and any Limitations to Care
- Communicate with Staff



# KNOW YOUR SITES NEEDS AND LIMITATIONS.

## Implementation Examples

### Unplanned Outage

### Describe Example

### Lessons learned:

- Engage a design and equipment supply company early!
- Identify your available power and location, make sure you have room for the actual equipment
- Work with a reputable company that maintains their equipment.
- Ensure staff on all shifts have been train on the piece of equipment. Even if they are seasoned.
- Temporary equipment does not usually have BAS controls that will meet your needs. Consider adding sensors to temporary lines.



# FUTURE PLANNING

- Emergency connections
- Chilled water
- Heating water
- Don't forget about the power!



I KNOW WE HAVE  
TALKED HVAC BUT DON'T  
FORGET ABOUT YOUR  
ELECTRICAL SYSTEM

- Generator Fail
- ATS's Fail
- Electrical systems Fail







# RESOURCES

