# Preventive Maintenance Power Hour!

Illinois Association of School Business Officials | Friday, March 6, 2026 | Drury Lane Events, Oakbrook Terrace

FPC
FACILITIES PROFESSIONALS
CONFERENCE

# Introductions

Leo Cassidy, MBA, CPMM, CPS. Speaker
- *Director of Operations, Oak Lawn-Hometown District 123*

Eric Jonasson, CPMM, CPS. Speaker
- *Director of Facilities, Lincolnshire School District 103*

Sean Smith, CPMM, CPS, BOC.Speaker
- *Director of Maintenance and Facilities, Gurnee 56*

Mark Rajcevich, Moderator
- *Building Manager, Glenbard Township High School District 87*

# The Importance of Preventive Maintenance


## What is preventive maintenance?

Preventive maintenance (PM) is a **proactive approach** to facilities management that focuses on identifying and addressing potential issues before they become major problems.

## Importance

Effective PM creates a reliable environment for education, minimizes disruptions from equipment failures, and contributes to the longevity of facilities.

# Preventive Maintenance Doesn’t Have To Be Scary!

Creating a plan cost nothing!

Implementing the plan cost time!

**Not having a plan will cost money, and a lot; it's only a matter of time!!!!**

# Goals of Preventive Maintenance

- **Operational Efficiency**
- **Safety Assurance**
- **Cost Management**

# The Impact of Preventive Maintenance

### 1. Cost Savings

- PM is cheaper than emergency repairs cost
- Extends equipment life
- Scheduled, opposed to unscheduled

### 2. Energy Efficiency

Regular maintenance can improve energy efficiency by ensuring systems operate as intended, leading to lower utility bills.

### 3. Health Benefits

Properly maintained systems contribute to better indoor air quality, reducing health issues related to poor ventilation and pollutants.


# What Plan is Right For You?

Different budgets will dictate different procedures

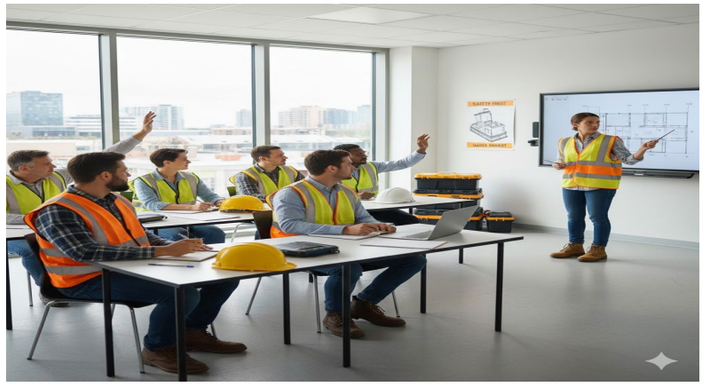
The only unacceptable plan is not having one!

# What are the Hurdles?

## Funding/Budget

## Staffing

## Training



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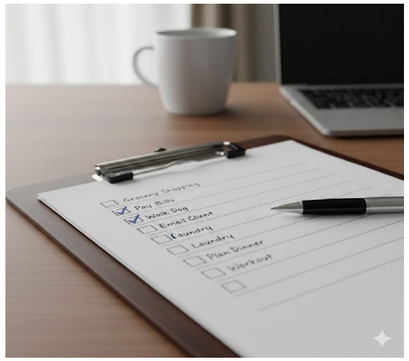
# What does a plan need?



- Accurate equipment and parts inventory
- Inspection checklists specific to each equipment
- Technician capable of performing the work
- Accurate and detailed record keeping
- Someone to oversee that the program is not only implemented but being performed as required!

# Key Components of a PM Plan

## Program Structure

- Organize equipment by type and criticality to prioritize maintenance efforts on essential systems.
- Adapt maintenance schedules to address the specific needs of different seasons.


## Record-Keeping

- Use CMMS software to your advantage
- Compile repair data to justify replacement
- Share information with stakeholders for transparency

# Building a Preventive Maintenance Plan

- Review ASHREA Guidance/Standards
- Check with Manufactures Intervals, Warranty Requirement
- Check with other owners/peers. What's working What's Not
- Living Document, Continually update the plan
- Review repair reports
- Annual review of the plan with responsible staff

# Records are key!

## Accurate and detailed records will go a long way!

- Establish timeline/schedule for work
- Track work progress and hours
- Collect data both written and photographic to support process/expenditures
- Communicate data supported evidence with stakeholders

# Preventive Checks for HVAC Systems

## Inspection Checklist

Develop a comprehensive checklist for staff to follow during routine inspections, ensuring thorough coverage of all components.

## Component Testing

Regularly test crucial components like motors, fans, and controls to prevent unexpected failures and ensure optimal system performance.

## Documentation

Maintain accurate records of all inspections, maintenance tasks, and repairs to track system performance, identify trends, and justify future funding requests.

# Communicating with your Board

**Proactive Communication**

Provide the board with periodic reports on the status of facilities, highlighting successes and areas needing attention. Use data to illustrate the benefits of PM investments and the overall condition of facilities. Transparency creates an advantage for your team.

**Emergency Protocols**

Establish clear steps for responding to equipment failures, including who to notify and how to manage the situation. Develop contingency plans to minimize disruption during emergencies.

**Funding**

Do you have a contingency fund for unexpected repairs , ensuring that funds are available  when emergencies arise?

# Who will do the work?

## District staff

District staff will require tools and training; initial cost

VS

## Outsourced Mech Contractor


Outsourced staff can be costly, even more so than training and tools.

# Essential Program Needs

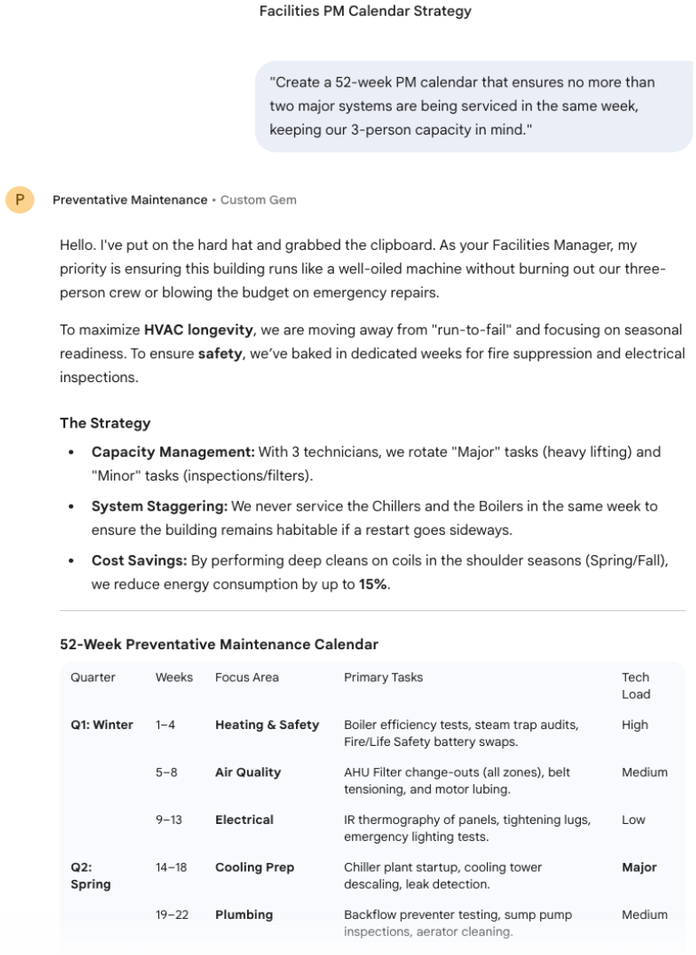
Essential Tools?
Depends on the skill of you staff.

A custodian or handyman won't need the same equipment as trained and licensed HVAC tech, plumber, electrician, etc.

# Make AI An Assistant

How to design and maintain your champagne plan with a beer budget?

Can AI help us with this?



Facilities PM Calendar Strategy

"Create a 52-week PM calendar that ensures no more than two major systems are being serviced in the same week, keeping our 3-person capacity in mind."

**Preventative Maintenance** • Custom Gem

Hello. I've put on the hard hat and grabbed the clipboard. As your Facilities Manager, my priority is ensuring this building runs like a well-oiled machine without burning out our three-person crew or blowing the budget on emergency repairs.

To maximize **HVAC longevity**, we are moving away from "run-to-fail" and focusing on seasonal readiness. To ensure **safety**, we've baked in dedicated weeks for fire suppression and electrical inspections.

**The Strategy**

- **Capacity Management:** With 3 technicians, we rotate "Major" tasks (heavy lifting) and "Minor" tasks (inspections/filters).
- **System Staggering:** We never service the Chillers and the Boilers in the same week to ensure the building remains habitable if a restart goes sideways.
- **Cost Savings:** By performing deep cleans on coils in the shoulder seasons (Spring/Fall), we reduce energy consumption by up to **15%**.

**52-Week Preventative Maintenance Calendar**

| Quarter | Weeks | Focus Area | Primary Tasks | Tech Load |
|---|---|---|---|---|
| **Q1: Winter** | 1–4 | **Heating & Safety** | Boiler efficiency tests, steam trap audits, Fire/Life Safety battery swaps. | High |
| | 5–8 | **Air Quality** | AHU Filter change-outs (all zones), belt tensioning, and motor lubing. | Medium |
| | 9–13 | **Electrical** | IR thermography of panels, tightening lugs, emergency lighting tests. | Low |
| **Q2: Spring** | 14–18 | **Cooling Prep** | Chiller plant startup, cooling tower descaling, leak detection. | **Major** |
| | 19–22 | **Plumbing** | Backflow preventer testing, sump pump inspections, aerator cleaning. | Medium |

# What Can I Squeak By With?

- Parts to have on hand
- Tools for your technician
- Contractor #1 and a backup just in case (foster relationships)
- Relationships with local municipalities for assistance in emergencies
- Be prepared with a restoration group that is pre approved by your insurance provider.

# A Little Goes a Long Way!!

Regular Cleaning (coils, louvers, motor/pump vents)

Grease

Oil

Visual inspections

Filters

Wearable parts (belts, linkage, gaskets)

Training videos


# What To Have On Hand

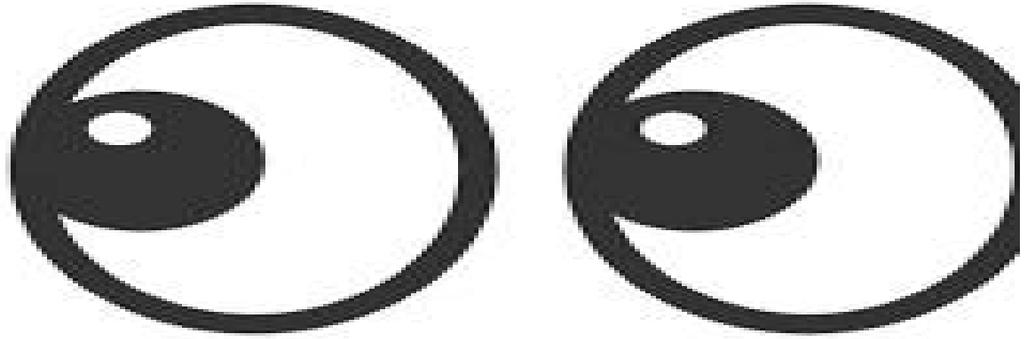
- Universal fan belts
- Space heaters
- High capacity fans
- Essential parts (bearings, couplers, seal kits, generator, battery powered lights)
- Spare fuses and filters,





# Constant Visual Inspections

Eyes on equipment will find small issues before they become catastrophic failures



# Daily Maintenance Checklist

**Inspection Template -** Provide a daily, weekly and monthly inspection template for staff to ensure consistency in monitoring equipment.

**Visual Inspection -** Visually inspect all equipment for signs of damage, leaks, or unusual noises.

**Filter Checks -** Inspect and replace air filters as needed, ensuring optimal airflow and air quality.

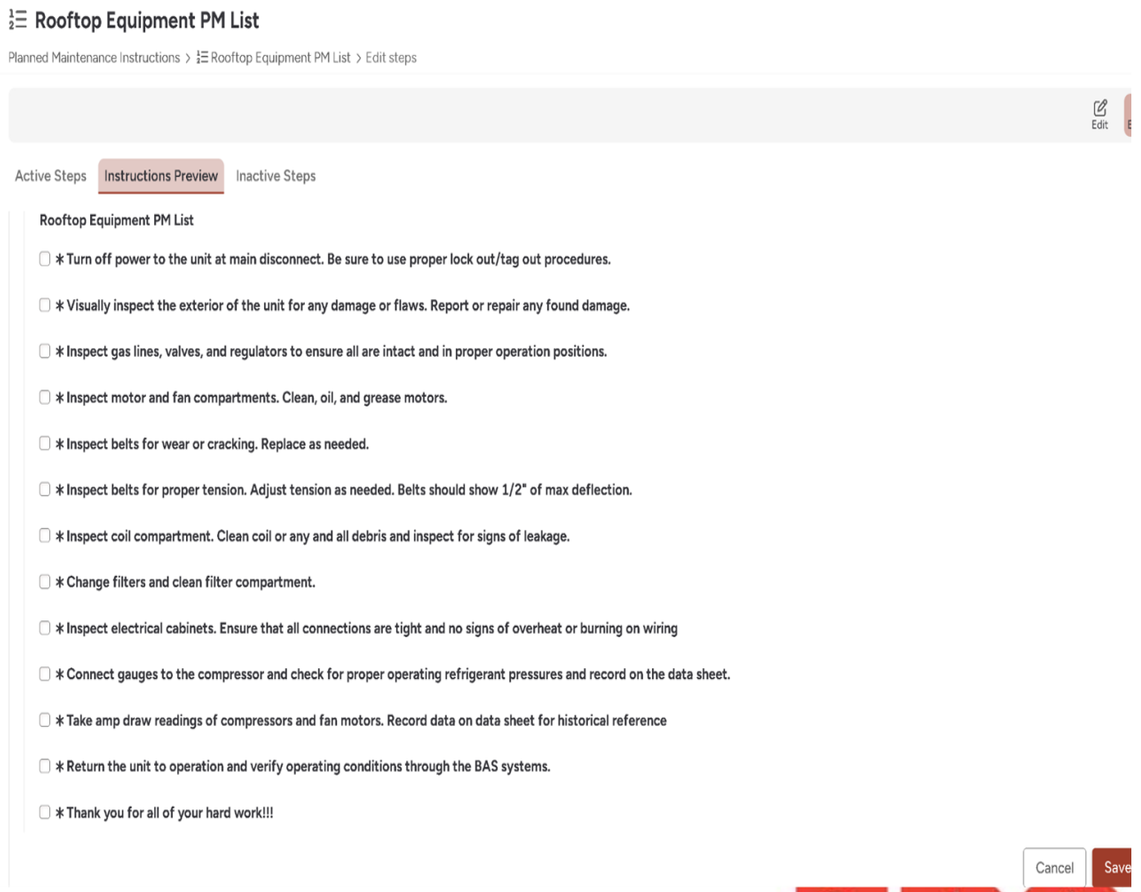
**Performance Monitoring -** Monitor system performance, noting any irregularities or deviations from expected operation.

**Reporting Mechanical Failures** - Establish a protocol for staff to report findings, enhancing communication and responsiveness.

# Components of a PM Checklist

Key Components:

- No detail is too small
- Include steps specific to each piece of equipment
- Always include use of safety equipment and practices
- Encourage data reporting



# Selecting Qualified Contractors

**Criteria for Selection**

Look for contractors with experience in school environments and a proven track record of reliability. Ensure contractors are willing to provide training for in-house staff on maintenance and operational best practices.

**Engagement with Contractors**

Foster a collaborative relationship with contractors to facilitate ongoing communication and support. Regularly review contractor performance to ensure they meet your district's standards and expectations.

- Identify your equipment
- What is their labor rate?
- Do they have a specialty?
  - Do you have specific equipment?
  - Are they trained to work on your equipment?
- Are they willing to train your staff on PM & minor repairs?
- Can they assist in energy management?
- Can they work with grants & incentives?
- Are they apart of a Co-Op?
- Can they assist in purchasing of parts?
- Have they worked for other Districts?
- Have a backup HVAC Contractor.

# Useful Tools are Available

**YouTube** is our friend for so much learning.  How can it help you to train safety

Can you seek continuing education **training** for your team,  could your board approve this education, could you partner with neighboring district to host classed (CPMM, CPS, FOP, Vendor Sponsored trainings, etc.)

# Helpful Resources

**IASBO Regional Groups**

https://www.iasbo.org/iasbo/events/regionals/facilitiesregional

**IASBO PDC Committees**

https://www.iasbo.org/events/pdcs

**Association for Facilities Engineering**

**https://afe.org/content.aspx?page_id=22&club_id=244299&module_id=233461**

**ASHRAE**

**https://www.ashrae.org/**

**Training Resources**

**https://hvacrschool.com/**

# Conclusion

- **Create** your plan and **implement** it
- Regularly **follow up** to ensure thoroughness
- Keep detailed **records** of work and repairs
- **Regularly** provide reports to stakeholders
- Have a plan to replace equipment before it fails and **STICK WITH IT**!!!

# Questions and Answers

*We thank you for your time!*

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