

Lyme-Old Lyme Schools HVAC Systems



Agenda

Current Configurations

Controls Software

SchoolDude

Questions



High School

3 Boilers (Shared with HS and CS)

Heat pumps for classrooms

ERU's for common areas

Chiller

Installed 2012

Controls system 2012

*All systems work in concert

Lyme School

2 Boilers

Fuel pumps

Hot water heaters

Installed 2001

Gym HVAC 2020

Controls system 2001/2020

Window units

Unit ventilators, baseboard, forced air/cooling gym and office suite

- Unit ventilators from @ 1960's
- No issues with gym since update





Mile Creek

2 boilers

Fuel pumps

Hot water heaters

Office/Media Center rooftop units

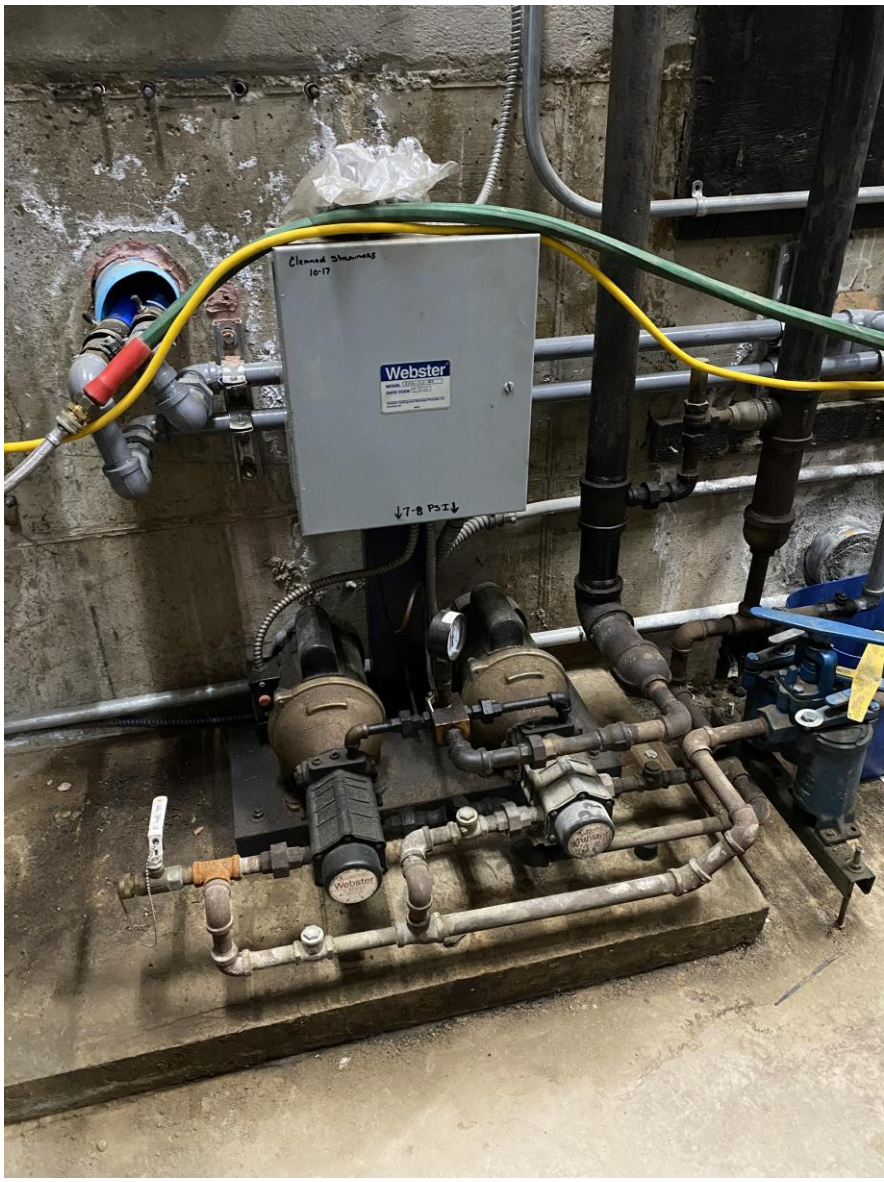
Installed 2000

Controls system 2000

Window units

Forced air/cooling, unit ventilators, baseboard heat

- Summer issues with dehumidification





Middle School

3 boilers (shared with HS and CS)

Fuel pumps

Hot water heaters

Rooftop units

Installed 2003

Window units

Controls system 2002

Forced air, baseboard heat, some AC (auditorium, office suite)



Center School

3 boilers (shared with HS and CS)

Fuel pumps (shared)

Hot water heaters (shared)

Rooftop units

Installed 2003

Controls system 2017

Window units

Forced air, baseboard heat

Control System

HVAC Control System Allows Remote Access To All 5 Buildings

- Access from campus or off-site location via Virtual Private Network (VPN)

Establishes Schedule for Occupied and Unoccupied Modes

- Saves on energy costs
- Vital during initial COVID protocols

Live Display of Conditions Provides Immediate Troubleshooting and Modifications

System Wide Alarm Feature Monitors Status of Equipment

- Boilers, pumps, fuel systems, water treatment

Lyme / Old Lyme Public Schools

High School



Mile Creek



Middle School



Walkway Lights

Summer Schedule Status

Inactive

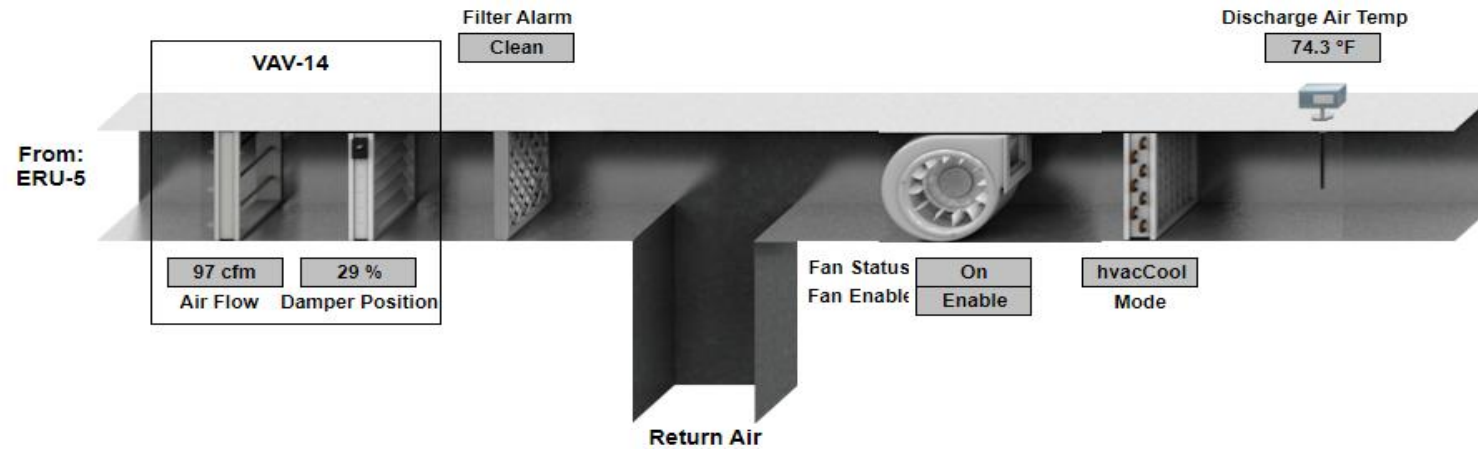
Media Center Common Clg Setpoint

73.0 °F

18Hr Lighting Override

**Overrides on Exterior Lights
At All Schools On For 18Hrs**

Serves: Rm 235

**Ventilation**

Rm Co2	588 ppm
Co2 Setpoint	800 ppm
Air Flow Setpoint	119 cfm

Mode

Unit Mode	hvacCool
Stages Enabled	0
Cool Stages On	0
Heat Stages On	0

Occupancy

Occupancy Sensor	Occupied
Schedule	ocOccupied

Space Temp

Rm Temp	70.6 °F
Effective Setpoint	72.0 °F
Occupied Cool Spt	72.0 °F
Occupied Heat Spt	70.0 °F
Unoccupied Cool Spt	85.0 °F
Unoccupied Heat Spt	60.0 °F
Standby Cool Spt	73.0 °F
Standby Heat Spt	69.0 °F

RM7

Setpoints

Monitor

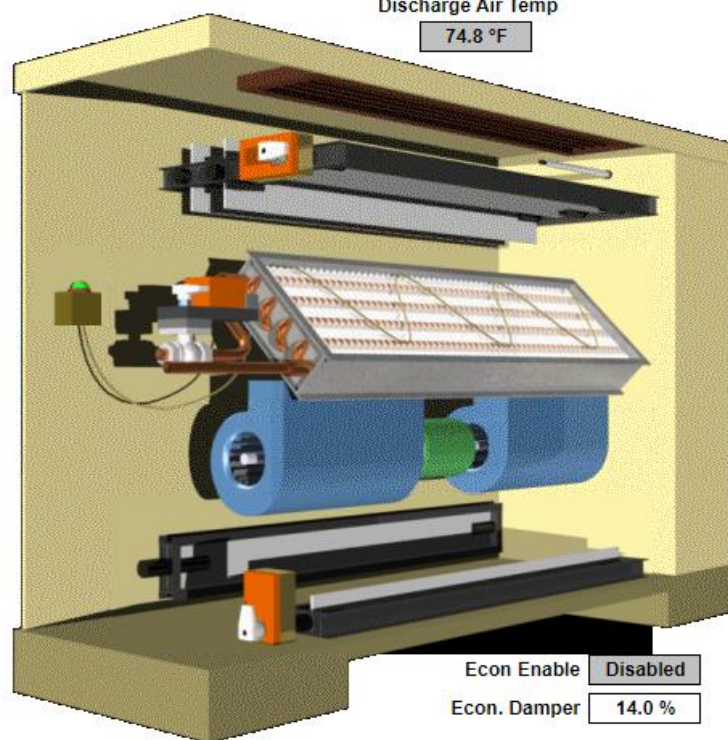
Override

Occupancy HVAC Mode

Outdoor Air Temp

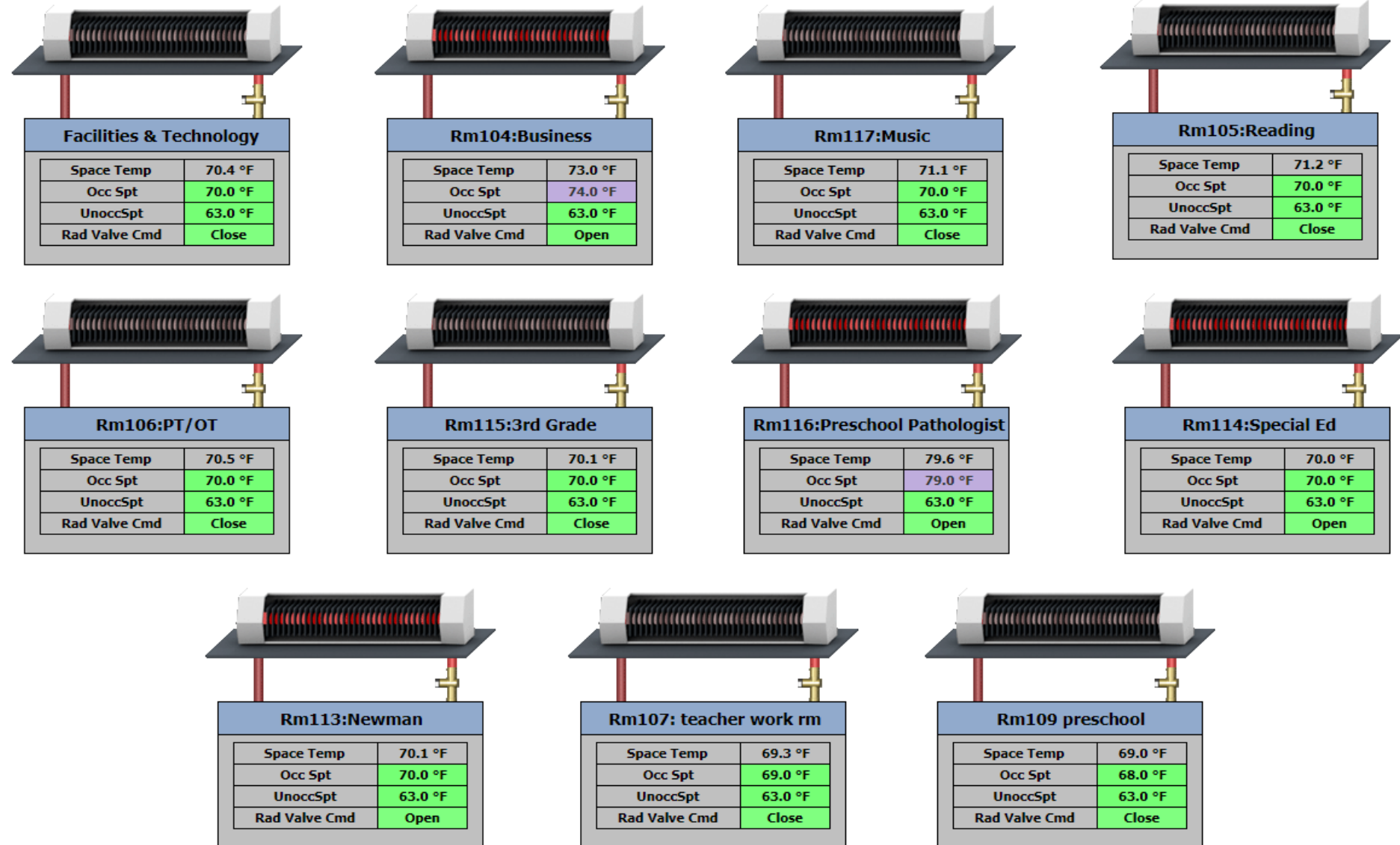
Discharge Air Temp

Face & Bypass Damper

Freeze Stat Fan Enable Room Temp Room Temp Spt Econ Enable Econ. Damper

Oa Temp	43.1 °F	Rad Enable	Enable
Rad Oa Enable Spt	60.0 °F	Zone Occupancy	Occupied

Radiation Zone 5 Comprised of Areas Served By RTU5



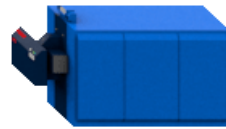
Boilers **Middle School Pumps** **Center School Pumps** **Domestic Hot Water**

Boiler 1 Enable **Enable**
Boiler 1 Mod **81.6 %**
Boiler 1 Alarm



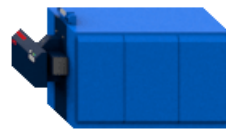
163.8 °F
Blr1 Rtrn Tmp

Boiler 2 Enable **Disable**
Boiler 2 Mod **50.0 %**
Boiler 2 Alarm



166.9 °F
Blr2 Rtrn Tmp

Boiler 3 Enable **Disable**
Boiler 3 Mod **50.0 %**
Boiler 3 Alarm



167.3 °F
Blr3 Rtrn Tmp

Hwp 13 Enable **Enable**
Hwp 13 Status



Hwp 14 Enable **Disable**
Hwp 14 Status



Hwp 15 Enable **Disable**
Hwp 15 Status



HWS Temp
174.1 °F



From
HS

Outdoor Air Reset

Outdoor Air Temp	44.5 °F
Calculated Hws Spt	174.0 °F

High OA Temp	70.0 °F	140.0 °F	Low Hws Spt
Low OA Temp	40.0 °F	180.0 °F	High Hws Spt

System Info

System Enable	Enable
Comb Dampers	Open
Fuel Pump 1 Status	Off
Fuel Pump 2 Status	Off

Boiler Rotation

Lead Boiler	Boiler 1	Manual Rotate
Lag Boiler	Boiler 3	Add/Remove Boiler
Lag Enabled	Disable	Rotation Schedule

Alarms

HWS High Limit	
HWS Low Limit	Normal

Boiler 1 Lockout	Normal
Boiler 2 Lockout	Normal
Boiler 3 Lockout	Normal

167.3 °F
Blr3 Rtrn Tmp

152.9 °F
HWR Temp

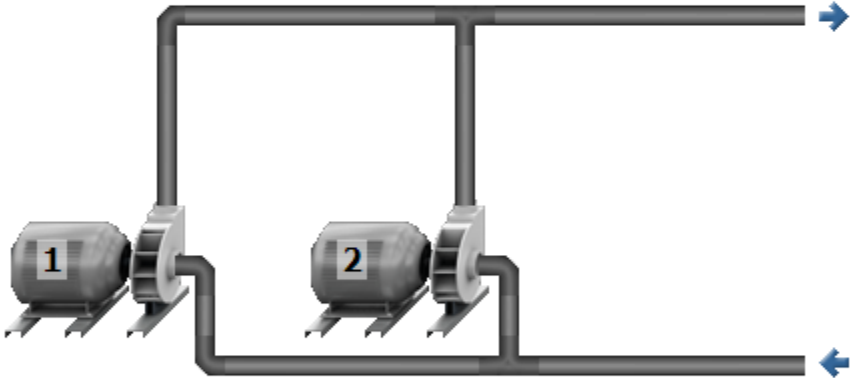
157.2 °F
HS Ret Temp

162.2 °F
HWR Temp

Middle School Fuel Pumps

Pump Rotation

Lead Pump	Pump 2
Rotation Alarm	Normal
Time Of Next Rotation	
15-Feb-22 10:00 AM EST	



Pump 1

Pump Enable	Disable
Pump Status	Off

Pump 2

Pump Enable	Enable
Pump Status	On

SchoolDude

Maintenance Ticketing System

- Available for all staff as well as self reporting

Preventative Maintenance Assignments

- Automatic generation of recurring maintenance

Schedules HVAC System to Correspond with Events

- Calendar connects to HVAC schedule

Work Order

Shortcuts ▾

Related Links ▾

Legend ▾

Add/Update Work Order

Work Order: 20249

Save

Reset



First



Prev

Next



Last



Status ☒

Complete



Status Date

1/27/2022 9:24:54 AM

Status Last Changed By

Brian Howe

Date Last Printed

Priority ☒

Medium



Created By

Susan Whritner

Date Created

1/27/2022 8:31:35 AM

Last Changed By

Brian Howe

Request Info

Location

Mile Creek Elementary



Building

-- No Building Available--



Area

Classroom



Request Date ☒

1/27/2022



Request Description ☒

Room is quite cold today.

Area Number

5

☐

Emergency?

Budget Info

Purpose

-- Select Purpose -- ▾

Budget

-- Select Budget Account -- ▾

Project

-- Select Project -- ▾

Classification

<-- Select Classification --> ▾

Type

<-- Select Type --> ▾

▶ Back to Shortcuts


Action Taken

Action







Reset bms set point to 72 degrees. I'll check unit again in a couple hours. Brian

▶ Back to Shortcuts

Message Center

 New Message

Click on a Message to Reply

-  Work Order Completion Notification (20249) **SchoolDude Message Center** 1/27/2022 9:24:55 AM (0)
-  Work Order Completion Notification **SchoolDude Message Center** 1/27/2022 9:24:55 AM (0)
-  Status Change for work order 20249 **SchoolDude Message Center** 1/27/2022 9:24:54 AM (0)
-  WO Assigned - 20249 **SchoolDude Message Center** 1/27/2022 9:24:54 AM (0)
-  Status Change for work order 20249 **SchoolDude Message Center** 1/27/2022 9:24:54 AM (0)
-  Work Order 20249 routed for your approval **SchoolDude Message Center** 1/27/2022 8:31:35 AM (0)

Add/Update Work Order



PM Work Order: 20132

[First](#)[Prev](#)[Next](#)[Last](#)**Status** ☒

Complete

**Status Date**

12/13/2021 9:31:32 AM

Status Last Changed By

Brian Howe

Date Last Printed**Priority** ☒

Medium

**Created By****Date Created**

12/5/2021 1:52:27 AM

Last Changed By

Brian Howe

Request Info

Location

Lyme Consolidated

**Building**

-- No Building Available--

**Area**

-- Select Area --

**Request Date**

12/5/2021 1:52:26 AM

Request Description ☒

Monthly - Lyme Consolidated Triannual AHU PM - Refer to PM schedule details.

Area Number☐**Emergency?**[▶ Back to Shortcuts](#)

PM Schedule

Pm Schedule 17492

Lyme Consolidated Triannual AHU PM

Job Start-up Procedures

Turn off power!

Safety Points

1. Deenergize equipment and lock out equipment if disconnect is remote of equipment.
2. Have gloves and safety glasses available as required.

Tasks & Procedures

Set All Yes

Set All No

	Complete?	Description	Procedure
1	<input checked="" type="radio"/> Yes <input type="radio"/> No	Triannual AHU & RTU PM <div>-- Comments --</div>	Tri Annual Air Handler Unit PM 1. Replace filters 2. Check belt tension and condition (cracks, fraying, glazing) 3. Check/clean outside air inlet screen 4. Check enclosure integrity 5. Inspect heating coils, cooling coils and valves for leakage. 6. Verify free operation of internal dampers.

Equipment

ID	Description	Model number	Serial Number	Area	Area #	Notes
lymeschoolahu-001				Storage	paper S3	Motor: 3ph/3hp Belt: 5L30 Filter: (4) 20X25X2

Tools

Nut driver set

Alan wrench set

Questions
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