

Ithaca City Schools Indoor Air Quality (IAQ) Evaluation in Response to COVID-19 Pandemic

Rev.: October 3, 2020

Update:

The teams have made tremendous progress over the past few weeks. All systems have been updated with MERV 13 filters and all but a very few spaces listed below are bringing in fresh air. We must reiterate that the buildings are old and continue to have some unresolved temperature control issues. Some spaces will be too warm and others may be on the cooler side. Additionally some systems are louder and may run longer.

Background:

The following report by Trane Technologies Inc. outlines actions that have been implemented to ensure additional analysis of HVAC systems with a focus on filtration and ventilation to vastly improve the air quality of Ithaca City School District buildings during COVID-19. The HVAC systems have now been calibrated to provide fresh air at volumes that exceed those recommended in response to COVID-19.

Prior to the COVID-19 pandemic, industrial Heating Ventilation and Air Conditioning systems (HVAC) were designed for occupant comfort. In response to COVID-19, HVAC systems are being reconditioned and recalibrated with the dual safety focus of filtration and ventilation (increased fresh air flow). As a result, in *some* instances, HVAC subsystems may be noisier (as the motors run with greater effort) and draftier (as more fresh air is pumped into spaces).

It is important to note that ICSD's HVAC systems were designed and calibrated to operate with windows closed (unless outdoor conditions compliment the room conditions regarding temperature and humidity). Historically, windows were opened with less regard for the overall calibration and operation of the HVAC system. While not optimal in the past, under current responses to COVID, opening windows when outside weather is not complimentary to internal building temperature and humidity could disrupt the building-wide calibration of the HVAC system and should be avoided.

Further, with added fresh air, managing temperature may be more of a challenge moving into colder months. While ICSD's focus is on safety (filtration and ventilation) continued attention will be maintained to balance fresh air intake with personal comfort (temperature). In general, the systems will operate in the temperature range required by New York State Department of Education (NYSED) (between 68 and 74 degrees F for heating and between 30% and 60% for relative humidity). Please be prepared for rooms that may impact your comfort in terms of your preferred body temperature. If there are temperature complaints that you feel are unreasonable please contact facilities.

Behavior guidance and recommendations for ICSD staff and students from Trane include:

- Never adjust or disable classroom HVAC systems; doing so can disrupt the building-wide system.
- Dress in layers in order to maintain personal comfort.

- Opening windows is not part of the building ventilation strategy. Operating windows should be done when advised by the ICSD administration or facilities staff.
- Remember, the HVAC systems have now been calibrated to provide fresh air at volumes that exceed those recommended in response to COVID-19.

Control changes:

- The ventilation schedule (including exhaust fans), have extended runtimes (one (1) additional hour prior to mass-building occupancy in the morning and one (1) additional hour post mass-occupancy in the evening). Note, the additional hour in the morning will result in a minimum two (2) hours of operation prior to the arrival of students.
- Occupancy-based ventilation control has been disabled to ensure that maximum fresh air flow is not adjusted by staff or students. The operation of ventilation and position of outside air dampers are fixed and open during occupied periods. On average, each space is receiving approximately 3 to 4 air changes per hour or about 30 Cubic Feet per Minute (CFM)/student. This is twice the requirement set by SED.
- Bathroom exhaust fan operation has been adjusted to operate 24/7.

Air filtration upgrades:

- Prior to ICSD's response to COVID, filters were primarily rated at MERV 8. (There were a few locations utilizing MERV 6 and MERV 11 filters). All filters have been changed to MERV 13 rated. This includes all roof-top HVAC units as well as room-based HVAC units.

Glossary of Terms:

AHU - Air Handling Unit
BAS - Building Automation System
BCU - Blower Coil Unit
B3A - Air fan
CLRM = Classroom
CUH - Cabinet Unit Heating
EF - Exhaust Fan
ERV - Energy Recovery Ventilator
FCU - Fan Coil Unit
FEC = Field Equipment Controller
HRV - Heat Recovery Ventilation
OA = Outside Air
OCC = Occupancy
PRE - Power Roof Exhaust
RTU - Rooftop Unit
UV - Unit Ventilator

Building by Building Overview:

Belle Sherman Elementary

All systems have MERV 13 filters and are operating providing fresh air. All spaces are safe to occupy.

Four (4) Exhaust Fans (EF) were not communicating with the control system properly:

- EF-1: Resolved
- EF-2R: Resolved
- EF-3R: Resolved
- EF-4: Resolved

Belle Sherman Annex

All systems have MERV 13 filters and are operating providing fresh air. All spaces are safe to occupy

- AHU-1A – Resolved
- AHU-2A – Resolved
- AHU-3A – Resolved

Beverly J. Martin Elementary

All systems have MERV 13 filters and are operating providing fresh air. All spaces are safe to occupy

- AHU-2C (loose belt fixed) - Resolved
- AHU-4BM (Pneumatics Damper Control not functional in unit but functional in OA duct outside unit) - Resolved
- AHU-5B (loose belt fixed, BX46 needs adjusting) - Resolved
- BCU-19 (could use AX39 cogged belt instead of A39) - Resolved
- BCU-24 (belt fixed-could use AX39 cogged belt instead of A39) - Resolved
- BCU-25 (could use AX39 cogged belt instead of A39) - Resolved
- BCU-27 (could use AX39 cogged belt instead of A39) - Resolved
- BCU-28 (could use AX39 cogged belt instead of A39) - Resolved
- BCU-30 (could use AX39 cogged belt instead of A39) - Resolved
- BCU-31 (filters need cleaning, could use AX39 cogged belt instead of A39) - Resolved
- BCU-7 (could use AX39 cogged belt instead of A39) - Resolved
- BCU-11 (could use AX39 cogged belt instead of A39) - Resolved

Boynton Middle School

All systems have MERV 13 filters and are operating providing fresh air. All spaces are safe to occupy.

- AHU-12BT (belt needs adjustment (AX-48)) - Resolved
- AHU-13 (belt good but loose, coil needed cleaning) – Resolved
- AHU-14 (coil issues, unit not operating) - This is a communication issue/Working to resolve, Gym – Space can be occupied so long as the gym is not divided.
- AHU-3 (need a new supply belt) - Resolved
- AHU-4 (exhaust belt a little loose (BX57) - Resolved
- AHU-5 (belt replaced (AX-29), unit not operating) - Resolved
- AHU-8-P2 (belt replaced (B53) - Resolved
- AHU-9-P3 (loose belt, could use cogged) - Resolved
- AHU-10P2 (belt too loose (A48) could use AX48 cogged, unit in bypass and not moving much air) - Resolved
- AHU (lower roof) (needs new belt, no filters) - Resolved

- BCU-10 (belt replaced (a42)) - Resolved
- BCU-11 (A-24 belt adjusted, coil needs to be replaced) - Resolved
- BCU-12 (A43 belt adjusted) - Resolved
- BCU-13P2 (coil completely iced up-unit shut down, A39 belt, could use AX39) - (cooling issue and hot water coil leaking) - Unit is running and space can be occupied.
- BCU-3P3 (a49 belt could use AX-49) - Resolved
- BCU-9 (belt replaced) - Resolved
- EF-10-3F (Electrical issue) – Resolved
- EF-15-4 (Electrical issue) - Resolved
- EF-15-5 (Electrical issue) - Resolved
- EF-b2-1 (Electrical issue) - Resolved
- EF-11F (needs belt-2209 MX) - Resolved
- EF-12F (belt replaced) - Resolved
- EF-13F (belt replaced -2209 MX) - Resolved
- EF-15F (belt replaced) - Resolved
- EF-16F (not operating, needs 1409 MX belt) - Resolved
- EF-2D (Needs AP20 belt) - Resolved
- EF-3D (belt resolved) - Resolved
- EF-7F (unit needs complete replacement) – Custodial A59, not student occupied space.
- G-10 (belt replaced) - Resolved
- G-15 (belt replaced) - Resolved
- G-31 (belt replaced) - Resolved
- G-9 (belt replaced) - Resolved
- HRV (Nv1030...125) (filters and belt replaced, heat exchanger core will be replaced) - equipment is ordered and unit is operational
- HRV (nv1030...127) (belt replaced and heat exchanger core will be replaced) - equipment is ordered and unit is operational
- ERV-5 (BX-51 too loose on supply, BP-56 too loose on exhaust) - Resolved

Caroline Elementary

All systems have MERV 13 filters and are operating providing fresh air. All spaces are safe to occupy.

- AV-S10 CR 47 transducer needs to be replaced OA damper - Resolved
- AV-S10 Rm 8 Library transducer needs to be replaced OA damper - Resolved
- AV-S10 Rm 8 Library transducer needs to be replaced OA damper - Resolved
- AV-S15 Rm 79 cafeteria broken motor frame - Resolved
- EF-3 (not on controls, needs to be investigated more) - Resolved
- EF-56 (motor to be replaced) - Resolved
- EF-11 (Motor to be replaced) - Resolved
- Temporary air compressor installed; new air compressor system ordered. All systems are operational.

Cayuga Heights Elementary

All systems have MERV 13 filters and are operating providing fresh air. All spaces are safe to occupy.

- AHU-1 (Return fan is operation - Resolved

- AHU-1F (Dampers not accessible without a lift) - Resolved
- AHU-2 (unit not operational) - Resolved
- 8R, 10R, 9R (Not on system) - Resolved
- EF-1 (not running) – Resolved
- EF-2 (running slowly) – Resolved
- EF-3 Fan - Resolved
- EF-4 (start issue) - Resolved
- EF-6 (fan issue) - Resolved
- UV-A2 (transducer was replaced) - Resolved
- UV-A6 (transducer was replaced) - Resolved

Dewitt Middle School

All systems have MERV 13 filters and are operating providing fresh air. All spaces are safe to occupy.

- AHU -X (AX29 belt loose) - Resolved
- AHU-1 (belts 2-BX60 worn and loose) - Resolved
- AHU-10P2 (AX48 belt loose and worn) - Resolved
- AHU-12DW (supply has no belt, AX54, return ok) - Resolved
- AHU-3P1 (Belts BX49, BX54 worn and loose) - Resolved
- AHU-4P1 (Belts 3-BX66, 2-BX72 worn and loose) - Resolved
- AHU-1F (AX43 belt is worn and loose, no filters in unit) - Resolved
- BCU-1 (AX46 belt worn and loose) - Resolved
- BCU-12 (AX42 belt is loose and worn) - Resolved
- BCU-2 (AX46 belt is worn and loose) - Resolved
- BCU-3 (AX53 belt worn and loose, coil plugged) - Resolved
- BCU-4 (AX46 belt is worn and loose, coil plugged) - Resolved
- BCU-5 (AX45 belt is worn and loose, coil plugged) - Resolved
- BCU-8 (AX45 belt worn and loose) - Resolved
- BCU-9 (AX43 belt worn and loose) - Resolved
- BCU-15 (Unit off the TXV has been removed & not replaced) – Resolved and operational, but need further attention in future, No cooling (comfort concern)
- ERV-3 (Heat Ex core needs replacement) - Working to resolve, Needs new core, equipment ordered, Unit is running and space can be occupied.
- ERV-4 (Heat Ex core needs replacement) - Working to resolve, Needs new core, equipment ordered, Unit is running and space can be occupied.
- ERV-5 (AX52, AX50, one loose and other broken) - Resolved
- ERV-6 (belts BX51 and BX56 loose and worn) - Resolved

Enfield Elementary

All systems have MERV 13 filters and are operating providing fresh air. All spaces are safe to occupy.

- EF-9R (Needs new belt 6724, new item) - Resolved
- EF-10R (Needs new belt 4L240, new item) - Resolved
- EF-10-3 (Electrical issue on exhaust fan start failure) - Resolved
- EF-15-4 (Electrical issue on exhaust fan start failure) working to resolve, Needs new complete fan. Bathrooms R28 &25, Alternative Toilets should be considered.

- EF-15-5 (Electrical issue on exhaust fan start failure) - Resolved
- EF b2-1 (Electrical issue on exhaust fan start failure) - Resolved
- B3A (both fans to unit have a start failure), Needs one of the two motors replaced. Operating on one now. Exhaust fan serves data closet not a student space.
- FCU-1 (no access to unit during walkthrough) - Resolved
- FCU-2 (no access to unit during walkthrough) - Resolved
- UV-14A (on/off switch appears to be broken, turns on/off without the switch moving) - Resolved
- UV-12A (replaced to single speed motor and there are noise complaints) - Resolved
- UV-16A (heating issues in winter) – Resolved and operational, but need further attention in future around temperature control.
- UV-13A (shaft is bent and needs replacement) – Resolved and operational
- RTU (cleaned coil) – Resolved and operational

Fall Creek Elementary

All systems have MERV 13 filters and are operating providing fresh air. All spaces are safe to occupy.

- AHU-1 (supply fan replaced) – Resolved
- AHU-2 (VFD & supply fan replaced) – Resolved
- EF-7 (failure) – Resolved
- UV 203 (transducer replaced on mixing damper) – Resolved
- UV 202 (No air pressure) – Resolved
- UV 201A (transducer replaced on mixing damper) – Resolved
- UV 216A (doesn't open to 100%, face bypass damper has transducer that need replacement) – Resolved
- UV 207A (transducer replaced) – Resolved
- UV 215A (transducer replaced) – Resolved
- UV 209A (all three transducers to be replaced) – Unit still has issues but is operating providing fresh air. Room 209a, Unit is running and space can be occupied.
- UV 123A (transducer replaced) – Resolved
- UV 122A (transducer replaced) – Resolved
- UV-106 (transducers replaced, face, bypass and fresh air dampers) – Resolved

Ithaca High School

All systems have MERV 13 filters and are operating providing fresh air, with the exception of one office and bathrooms in G building. Noise and temperature control complaints will persist, but the spaces are safe to occupy.

- AHU-10a (coil cleaned, unit needs new A44 or AX44 belt ASAP) – Resolved
- AHU-1A (2 RTF belts loose, bearings could be greased, filters need replacement, condensate drain was not plugged, supply fan cabinet full of water) – Resolved
- AHU-2A (coil cleaned, belt loose, door seals leak at supply/discharge plenum) – Resolved
- AHU-3A (belt loose could use AX52, grease fittings, OA damper not responding to controls) – Resolved
- AHU-4A (coil cleaned) – Resolved

- AHU-5A (coil cleaned) – Resolved
- AHU-6A (needs new belt ASAP: 4L480W Napa, needs filters) – Resolved
- AHU-7A (unit not operating even when stroked, belt loose, could use AX39, unit needs attention) – Resolved
- AHU-8A (A52 belt is loose, could use AX52, grease fittings, damper not responding to controls) – Resolved
- AHU-9A (A41 belt needs immediate replacement) – Resolved
- AHU-5c (4L450W belt Loose) – Resolved
- AHU-1F (Controls issues) – Resolved
- AHU-1K (unit isn't running, starter is not pulling in) – Resolved
- AHU-1L (no control) – Resolved
- EF-1A (need new belt, rusty sheaves) – Resolved, Parts are installed just need to find breaker to turn on
- EF-1K (bee hives inside, T93ET belt needs replacement) – Resolved
- PRE-1K (loose belt, could use new 4L240W belt) – Resolved
- EF-10E (needs new belt, 4L270) – Resolved
- EF-12E (4L260W belt is fine, fan is spinning without belt, it was shut off) – Resolved
- EF-13E (needs belt) – Resolved
- EF-2C (belt needs to be changed, A43) – Resolved
- EF-1L (not on controls, needs 6719 belt, fan needs to be maintained) – Resolved
- PRE-1L (motor needs replacement) – Resolved
- PRE-2L (needs new 6821 belt) – Resolved
- PRE-3L (needs new belt) - Working to resolve before 10/2/20, Day Automation Issue, Toilet Room L51 Admin Building, Does not affect student spaces.
- PRE-4L (needs new belt) – Resolved
- PRE-5L (belt is loose, need spare) – Resolved
- PRE-1C (needs new A43 belt) – Resolved
- PRE-3C (needs new A43 belt) – Resolved
- PRE-4C (needs new A43 belt) – Resolved
- PRE-5C (A43 belt loose and needs adjustment) – Resolved
- PRE-6C (Communication issue) – Resolved
- PRE-7C (need new A43 belt, motor replaced) – Resolved
- PRE-8C (need to investigate further, needs new 6821 belt, motor may need replacement, wouldn't come on with controls) – Resolved
- PRE-3D (needs new 4L240W belt, bees nest in unit) – Resolved
- PRE-4D (need 4L240W belt) – Resolved
- PRE-5D (needs new 4L200W belt) – Resolved
- PRE-6D (communication issue) – Resolved
- PRE-1D (communication issue, needs new 4L240W belt, bearings need replacement) – Resolved
- ERV-1A Coil has been replaced now has a controls issue that needs to be resolved will have to run in hand for ventilation. Room A138, Coil was replaced there is an outstanding control issue, Unit is running and space can be occupied.
- PRE-12H (belt needs to be replaced, 4L210W) – Resolved
- PRE-1H (needs new belt, 6824 belt) – Resolved
- PRE-2H (No sheave/pulley on motor shaft, – Resolved

- PRE-3H (2 units labeled PRE-3H, both on and will need new belt soon, 122ET and 4L210W belts) – Resolved
- PRE-4H (needs 4L230 Belt or equivalent) – Resolved
- PRE-5H (will need new 4L210W belt in near future) – Resolved
- PRE-6H (needs 4L210W belt or equivalent) – Resolved
- PRE-7H (needs 4L210W belt or equivalent) – Resolved
- PRE-8H (needs 4L250W belt or equivalent) – Resolved
- PRE-1E (no belt, commanded motor on unit, did not come on) – Resolved
- PRE-2E(e4 in ddc) (belt worn and loose) – Resolved
- PRE-5E (not operational, customer thinks controlled by switch in paint booth) – Resolved
- PRE-6E (4L290W needs new belt) – Resolved
- PRE-7E (needs new switch) - Resolved
- PRE-8E (4I220W need spare belt) – Resolved
- PRE-9E (4L210 need spare) – Resolved
- EF-6F (needs more investigation) – Resolved
- PRE-1F (needs more investigation) – Resolved
- PRE-3F (needs more investigation) – Resolved
- PRE-4F (needs more investigation) – Resolved
- PRE-6F (needs more investigation) – Resolved
- PRE-7F (needs more investigation) – Resolved
- RTH-5F (no access to controls) – Resolved
- RTH-6F (no access to controls) – Resolved
- PRE-10G (loose belt, 4L210W) – Resolved
- PRE-1G (loose belt, 4L250W) – Resolved
- PRE-2G (bearings need to be replaced, no belt, needs attention) Working to resolve, parts are ordered, Building G Toilets, Alternative Toilets Should be Considered. Up and down stairs.
- PRE-3G (needs attention, shaft/bearings spin hard, rusty. Order spare belt, 4L240W) – Resolved
- PRE-4G (needs replacement belt immediately, 4L240W) – Resolved
- PRE-5G (belt loose but ok, order spare) – Resolved
- PRE-6G (needs belt, 4L230W) – Resolved
- PRE-7G (order spare 4L230W belt) – Resolved
- PRE-8G (order spare 4L240W belt) – Resolved
- PRE-9G (needs belt, 4L250W) – Resolved
- PRE-2K (needs 6819 belt) – Resolved
- PRE-3K (needs 6820 belt) – Resolved
- PRE-4K (needs A22 belt) – Resolved
- PRE-5K (needs A22 belt) – Resolved
- PRE-6K (needs A22 belt) – Resolved
- PRE-7K (oxidized sheaves, possible bearing replacement needed) - Resolved
- PRE-8K (needs A21 belt) – Resolved
- FCU-1 (lobby) (no access to filter, pipes in way) - Complicated to resolve due to pipe location (add to Capital Project), Building E Space E14, No space for MERV 13 Filters. This is a mud room not a classroom.
- FCU-1 (storage) Resolved

- FCU-3.1 (controls are down) - Resolved
- FCU-3 (on/off switch needs replacement, OA damper isn't working, couldn't do visual inspection due to location) - Resolved
- FCU-4K (unit did not respond to occ sensor) – Resolved
- FCU-6K (controls issues) - Working to resolve, Bad Motor, Building K Room K121A OFFICE, - Resolved
- FCU-7K (unit in poor condition, occ sensor is not working) - Building K Room K125, Unit is running and space can be occupied.
- FCU-8k (unit is running, system indicates off, occ sensor is not working) – Cooling only Issue, Cooling issue Building K Room K108, Unit is running and space can be occupied.
- FCU-9K (motors burned out) – Resolved
- FCU-3E (ceiling unit dirty, fan makes loud noise, seems out of balance) – Resolved
- FCU-8E Johnson Reset Controller and seems to be working now. – Resolved
- FCU-G109A (needs a D-3031-4 actuator for the outside air damper) – Resolved
- FCU-G109B no notes from Johnson, Building G Room G109B, and Unit is running and space can be occupied.
- FCU-G207 d-3031-4 actuator, Building G Room G207, Unit is running and space can be occupied.
- FCU-G211 (unit needs new motor, only runs on high or low) – Resolved
- FCU-G214 (need new space temp sensor) – Front Office, Not a student space, System does not run, Space cannot be occupied.
- FCU-G215 being changed to a uc 400, Building G Room G215 – Resolved
- FCU-G125 being changed to a uc 400, Building G Room G125 – Resolved
- FCU-218 (no power) - Building G Room G218 – Resolved
- BCU-1H (unit needs attention, 4L450W belt loose, unit only functions in hand from drive, cooling valved off) – Resolved
- BCU-1h (RM: H235) (no controls, integration-investigate why) – Resolved
- RTU-1 (eco filters dirty) – Resolved
- RTU-3 (unit out of service, coil is broken, no communication) - Working to resolve, Building Q Room Q106 – Resolved
- RTU-5 (out of service, coil broken, belt loose) – Resolved
- RTU-6 (out of service, coil broken, belt loose) – Building Q Room Q107 controls issue Resolved Coil is still broken it was beyond repair. They made several attempts and found the coil was just too far gone. Unit is running and space can be occupied.
- UV-ROOM 212 (motor may be wearing out, took a while to fire up to speed) - Working to resolve before 10/2/20 – Resolved
- UV-ROOM 213- Working to resolve before 10/2/20 – Resolved
- UV-ROOM 109 (not functioning with controls, needs controls attention) - Working to resolve before 10/2/20, Fan is running continuous, Unit is running and space can be occupied.
- UV-RM H101 (current sensor needs replacement) - Working to resolve before 10/2/20, Day Automation Issue Fan is running Continuous, Unit is running and space can be occupied.
- UV-1D (temp sensor needed) – Resolved
- UV-2D (control issues, fresh air intake covered with plywood) – Resolved
- UV-4D (control issues, cannot shut blower off with front end) – Resolved
- UV-5D (control issues, cannot shut blower off with front end) – Resolved

- UV-6D (occ sensor isn't working) – Resolved
- UV-8E (blower motor has been ordered, had to spin shaft to get to run) – Resolved
- UV-G 106 (supply grills of unit could use a good cleaning) - Working to resolve – Resolved
- UV-G 107 (supply grills of unit could use a good cleaning) – Resolved
- UV-G 108 (supply grills of unit could use a good cleaning) - Resolved
- UV-G 110 (needs attention, not functioning-could be a blown fuse or communication error) – Resolved
- UV-G 204 being changed to uc 400 will be complete, Building G Room G204
- UV-G 212 (needs attention, transformer appears to need replacement/has burn spots) – Resolved
- UV-G 213 (needs attention, controls and actuator work but unit not running) – Resolved
- UV-G 223 (squirrel cage full of pencils and needs replacement, needs cleaning in the blower compartment (loud), possibly clean fan blades while at it) – Resolved
- UV-H 111 (unit not communicating) - Working to resolve, Building H Room H111, Fan is running Continuous, Unit is running and space can be occupied.
- UV-H 210 (no power) – Resolved
- UV-10K (control issue, unit needs cleaning, not cooling) - Resolved
- UV-13k (control issues) - Working to resolve, Day Automation Issue, Building K Room K119 - Resolved
- UV-6K (controls issue) - Working to resolve, Day Automation Issue, Building K Room K105- Resolved
- UV-107s (cooling does not seem to be working) - Working to resolve, Day Automation Issue
- UV-107n (cooling does not seem to be working) - Working to resolve, Day Automation Issue, Building K Room K107n, Cooling issue, Unit is running and space can be occupied.
- UV-K107S (cooling valve only partially opens for either Johnson or Day) – Resolved
- F3 - Controller needs to be replaced with an FEC- Working to resolve, JCI Issue- Resolved
- F4 - Chilled water valve EP is disconnected (EP-321) needs to be replaced. - Working to resolve, Johnson Control Issue, Space can be Occupied
- F5 - The unit needs to be rewired to work correctly. It needs 2 new EP-8000-2's installed. - Working to resolve, Johnson Control Issue, controls Issue, Unit is running and space can be occupied.
- F7 - New thermostat wire and possible new controller FEC to replace the UNT for the uninvent. – changing controls on the unit - Resolved
- GK101 controls Issue Loud, but Unit is running and space can be occupied.

Lehman Alternative Community

Some units and their filters were not accessible but we resolved them. All units are operational with fresh air and MERV 13 filters. All spaces are safe to occupy.

- AHU-2 (could not verify filter size or damper position but seems to be functioning) - Resolved
- AHU-3 (could not verify filter size or damper position but seems to be functioning) - Resolved

- BCU-4 (no filter in unit, access is an issue for filter removal) – Resolved
- BCU-5 (no access to filter) - Resolved
- BCU-6 (no access at this time) – Resolved
- CUH 247.1 (start fan failure) – Resolved
- EF-1 (start failure) – Resolved
- EF-8 (fan failure) – Resolved
- FCU-1 (could not verify operation, no access to damper) – Resolved

Northeast Elementary

All systems have MERV 13 filters and are operating providing fresh air. All spaces are safe to occupy.

- UV-207 (transducer replaced) – Resolved
- UV-214 (transducer replaced) – Resolved
- UV-231 (transducer replaced) – Resolved
- UV-226 (ep switch replaced, low air pressure) – Resolved
- UV-223 (transducer replaced) – Resolved
- UV-220 (transducer replaced) – Resolved
- UV-137 (transducer replaced on hot water valve) – Resolved
- UV-131 (transducer replaced on fresh air damper) – Resolved
- UV-126 (transducer replaced on fresh air damper) – Resolved
- UV-120 (transducer replaced) – Resolved
- UV-117 (fresh air transducer replaced) – Resolved
- UV-114 (transducer replaced) – Resolved
- UV-A27 (incorrect filter in unit) – Resolved
- UV-A28 (motor replaced) – Resolved
- UV-111 (transducer replaced) – Resolved
- UV-A32 (motor and transducer replaced) - Resolved
- EF-5 (motor issues) – Resolved
- EF-6 (motor issues) – Resolved
- EF-7 (start failure) – Resolved
- Temporary air compressor installed new air compressor system order. All systems are operational

South Hill Elementary

All systems have MERV 13 filters and are operating bringing in fresh air. All spaces are safe to occupy.

- EF-3 & EF-5R have started failures. – Resolved
- EF-1 and EF-3 status does not match the controls system. - Working to resolve (it is operational a communication systems) – Resolved
- UV 209, reconnect damper check pneumatic operation – Resolved
- UV 212, reconnect damper check pneumatic operation – Resolved
- UV 227, transducer replaced Check and Replace – Resolved
- UV 221, transducer replaced Check and Replace – Resolved
- UV 202, transducer replaced Check and Replace – Resolved

- UV 102, transducer replaced Check and Replace – Resolved
- UV 103, transducer replaced Check and Replace – Resolved
- UV 109, transducer replaced Check and Replace – Resolved
- UV 110, transducer replaced Check and Replace – Resolved
- RTU-1, Check damper linkage for proper operation. – Resolved
- AHU-2A, Check damper linkage for proper operation. – Resolved
- AHU-3A, Check damper linkage for proper operation. – Resolved