SAN MATEO COUNTY COMMUNITY COLLEGE DISTRICT

Cañada College • College of San Mateo • Skyline College

10/29/21: Facilities Response to Questions from Skyline College Community.

The comparisons between the HVAC system in Skyline's BLDG 5 (Library, Disability/Education Access Resource Center, Learning Center, etc) and Canada's Library seem to indicate very different systems.

1. HVAC systems in all buildings across the District meet or exceed ventilation code requirements: Title 24 and ASHRAE 62.1 – Mechanical or Natural Ventilation.
2. CalOSHA refers to Title 24 and ASHRAE 62.1 for guidance. The District has met or exceeded OSHA requirements. https://www.dir.ca.gov/title8/3205.html *3205. COVID-19 Prevention, (2) Identification and evaluation of COVID-19 Hazards, (E) For indoor locations, the employer shall evaluate how to maximize ventilation with outdoor air; the highest level of filtration efficiency compatible with the existing ventilation system; and whether the use of portable or mounted High Efficiency Particulate Air (HEPA) filtration units, or other air cleaning systems would reduce the risk of COVID-19 transmission.*
3. Although the buildings were built at different times, SKY B5 and CAN B9 have similar ventilation air handling units. Both buildings meet or exceed ventilation code requirements: Title 24 and ASHRAE 62.
    a. SKY B5: Original Construction + Modernized in CIP 2
        i. Mechanical ventilation, variable air volume (VAV) supplied by roof top units, MERV 13 filters, heating hot water (HHW) from central plant, direct expansion (DX) cooling. Mechanical ventilation is sufficient to support the entire building's occupancy.
        ii. Natural ventilation operable windows-supplemental.
    b. CAN B9: New Construction CIP 1
        i. Mechanical ventilation: variable air volume (VAV) supplied by roof top units, MERV 13 filters, heating hot water from central plant, cooling from central chiller plant
        ii. Natural ventilation: None

It's not clear how effective Skyline's HVAC (and filtration system) is adequate in providing healthy air flow, protection from the persistent mold problems (from flooding/water leakage) among other issues. The mold problems are especially bad on the first floor of Bldg 5.

1. Monitored and controlled by the Building Management System (BMS), Building 5 has four roof top air handling units that supply MERV 13 filtered conditioned (heated/cooled) air to the building. Variable Air Volume boxes controlled by the BMS supply prescribed air flow and heating/cooling to the individual spaces. Building occupants have some control over the heating/cooling via the thermostat in their space.
    a. Minimum Efficiency Reporting Value (MERV) rating informs how effectively a filter traps small particles. Average Particle Size Efficiency in Microns for MERV 13 Filters: 1.0 - 3.0 µm 85% - 89.9%, 3.0 - 10.0 µm 90% -98%
2. Air Quality Testing for Mold: Denali Inc., provides industrial hygienist services, reviewed building 5, and conducted air quality tests specific for mold. Denali reported

that they "*did not observe the presence of visible mold growth in building interior areas. The air sample results reported that the airborne mold spores were extremely low, and in several instances, at or below the lower limits of the laboratory protocol reporting limits of <13 spores per cubic meter. Based on our observations of the building's interior conditions in SKY B5 and air sample laboratory results, Denali believes that SKY B5 is suitable for occupancy and use.*"

3. Attachments
    a. Attachment 1: Building 5 Information
    b. Attachment 2: Most recent mold report from Denali
4. Building 5 has had water intrusion issues. No less than two contractors and our own team have chased out and mitigated water leaks over the years. We will continue to do so as more leaks reveal themselves.

Similarly, in Pac Heights--while there was discussion about plexiglass interfering with healthy airflow, now cubicles have been erected in many areas of PH. We would like complete HVAC/filtration information, room by room.

1. The Pacific Heights Swing Space project was reviewed and approved by the Division of State Architect (DSA), including the Dirtt Wall offices. DSA is the authority having jurisdiction (AHJ) over the District's projects.
2. Pac heights is served by constant volume furnace systems with MERV 13 filters and is naturally ventilated and has room level heating systems that use 100% outside air.
3. Airflow within the Dirtt Wall offices (Glass Offices) cannot be specifically measured, nor can only naturally ventilated spaces. Code dictates parameters for naturally ventilated spaces. HVAC systems in all buildings across the District meet or exceed ventilation code requirements: Title 24 and ASHRAE 62.1 – Mechanical or Natural Ventilation.
    a. I am confident that the Dirtt Wall offices provide sufficient ventilation. Air moves into the offices from above the walls since there is a large gap are not sealed and every time the door to the office is opened air will also circulate within the space. The furnace air handler provides enough fresh air to the entire room to support at least 30 people.
    b. Facilities Manager, John Doctor, and I personally measured C02 and PM2.5 under suboptimal occupied conditions and we observed sound results. C02 can be a helpful indicator of air quality and ventilation in particular. Measuring PM2.5 is an indicator of droplet and particulate matter density in a space.
    c. However, given the nature of your work combined with the height of the glass walls and our inability to specifically measure air movement in these spaces Facilities will supply portable HEPA filters for these Dirtt wall (glass wall) offices.
4. Mechanical Ventilation in Pac Heights
    a. Furnaces - ~ 1,000 cfm supply air: ~500 cfm fresh air
    b. Provide sufficient ventilation for at least 30 occupants in the space
    c. Furnaces are equipped with MERV 13 filters
5. Natural Ventilation in Pac Heights
    a. Operable doors/windows for natural ventilation
    b. Not required for occupancy, but can provide additional ventilation
6. Attachments
    a. Attachment 3: Graphic shows location of each furnace/exhaust fan unit and the corresponding area it serves in Building 19.
    b. Attachment 4: SKY B19 Air Flow Info

Below is the chart that was shared about HVAC and or filtration. We are requesting full written (verbal) descriptions of the HVAC system in each space—such as work areas/classrooms, hallways, study rooms, stairwells, elevators, library etc. https://smccd.edu/return-to-campus/Ventilation%20Systems%20Information%20Report%20-%20Appendix%20SKY.pdf

1. Facilities continues to strengthen ventilation and filtration performance across the District. An updated version of this document is attached. Working to update the
    a. Attachment 6: Appendix C: Skyline College HVAC Systems
2. For the mechanical systems that serve the buildings, Mechanical system professionals look at the mechanical systems as a holistic sum serving all of the spaces that make up the building. The systems were designed by licensed Mechanical Engineers, reviewed by the Division of the State Architect (DSA), and constructed by qualified licensed mechanical contractors. Facilities maintains these systems as designed. Typically individual spaces do not have separate filtration systems. Such filtration would only be typical in lab environments.
3. The majority of the District's buildings are monitored by the BMS. For all building ventilation systems controlled by the BMS, Facilities has digital access to monitor all spaces. In additions, regular inspections and maintenance of mechanical equipment is part of our work.
4. In areas without BMS, the team regularly performs inspections and maintenance.
5. Attachments
    a. Attachment 1: see Building 5 Information for an idea of what we monitor and the complete information we have access to.
    b. Attachment 5: SKY B5 COVID Ventilation - Evaluation

Filtration systems seem to also vary. Please provide a written description of the filtration systems operating in each space—such as work areas/classrooms, hallways, study rooms, stairwells, elevators, library etc. There have been references to "updates to filtration systems where possible." Please clarify what this means.

1. "updates to filtration systems where possible." There are some mechanical systems that cannot support the use of filters higher than MERV 8, due to constricted air flow that MERV 13 filters may cause. Facilities first priority is to ensure appropriate code required ventilation in occupied spaces. The District meet or exceed ventilation code requirements: Title 24 and ASHRAE 62.1
2. CalOSHA refers to Title 24 and ASHRAE 62.1 for guidance. The District has met or exceeded OSHA requirements. https://www.dir.ca.gov/title8/3205.html *3205. COVID-19 Prevention, (2) Identification and evaluation of COVID-19 Hazards, (E) For indoor locations, the employer shall evaluate how to maximize ventilation with outdoor air;* ***the highest level of filtration efficiency compatible with the existing ventilation system****; and whether the use of portable or mounted High Efficiency Particulate Air (HEPA) filtration units, or other air cleaning systems would reduce the risk of COVID-19 transmission.*

Additionally, are the HVAC and or Filtration systems across the Skyline campus up to Cal OSHA standards?

1. Yes

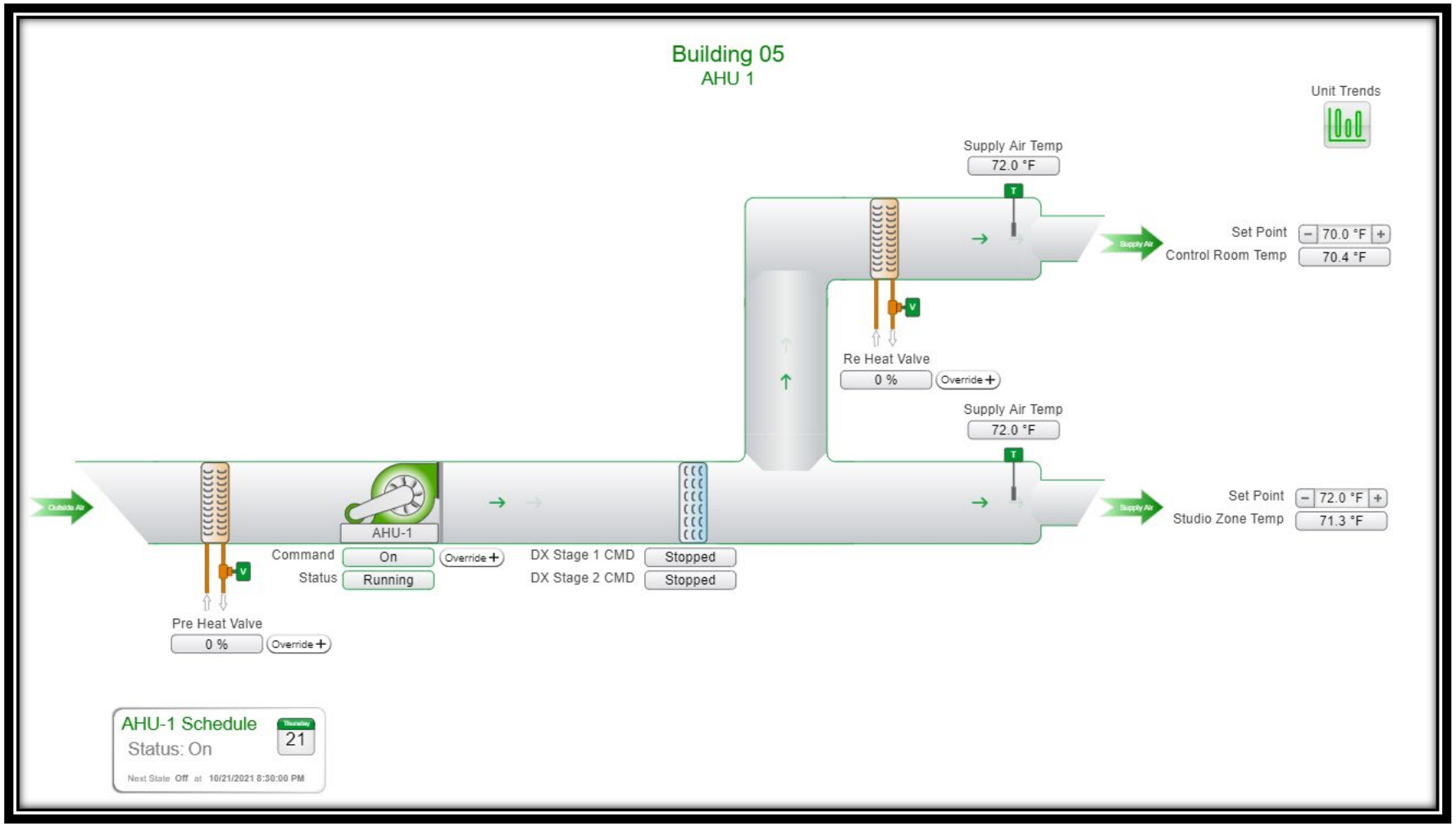
Do “Legacy” buildings get a “pass” on HVAC and or Filtration standards? If so, please explain.

1. HVAC systems in all buildings across the District meet or exceed ventilation code requirements: Title 24 and ASHRAE 62.1 – Mechanical or Natural Ventilation.
2. CalOSHA refers to Title 24 and ASHRAE 62.1 for guidance. The District has met or exceeded OSHA requirements. https://www.dir.ca.gov/title8/3205.html *3205. COVID-19 Prevention, (2) Identification and evaluation of COVID-19 Hazards, (E) For indoor locations, the employer shall evaluate how to maximize ventilation with outdoor air; the highest level of filtration efficiency compatible with the existing ventilation system; and whether the use of portable or mounted High Efficiency Particulate Air (HEPA) filtration units, or other air cleaning systems would reduce the risk of COVID-19 transmission.*

Skyline B5 –Air Handling Unit 1 (AHU1)

AHU1:

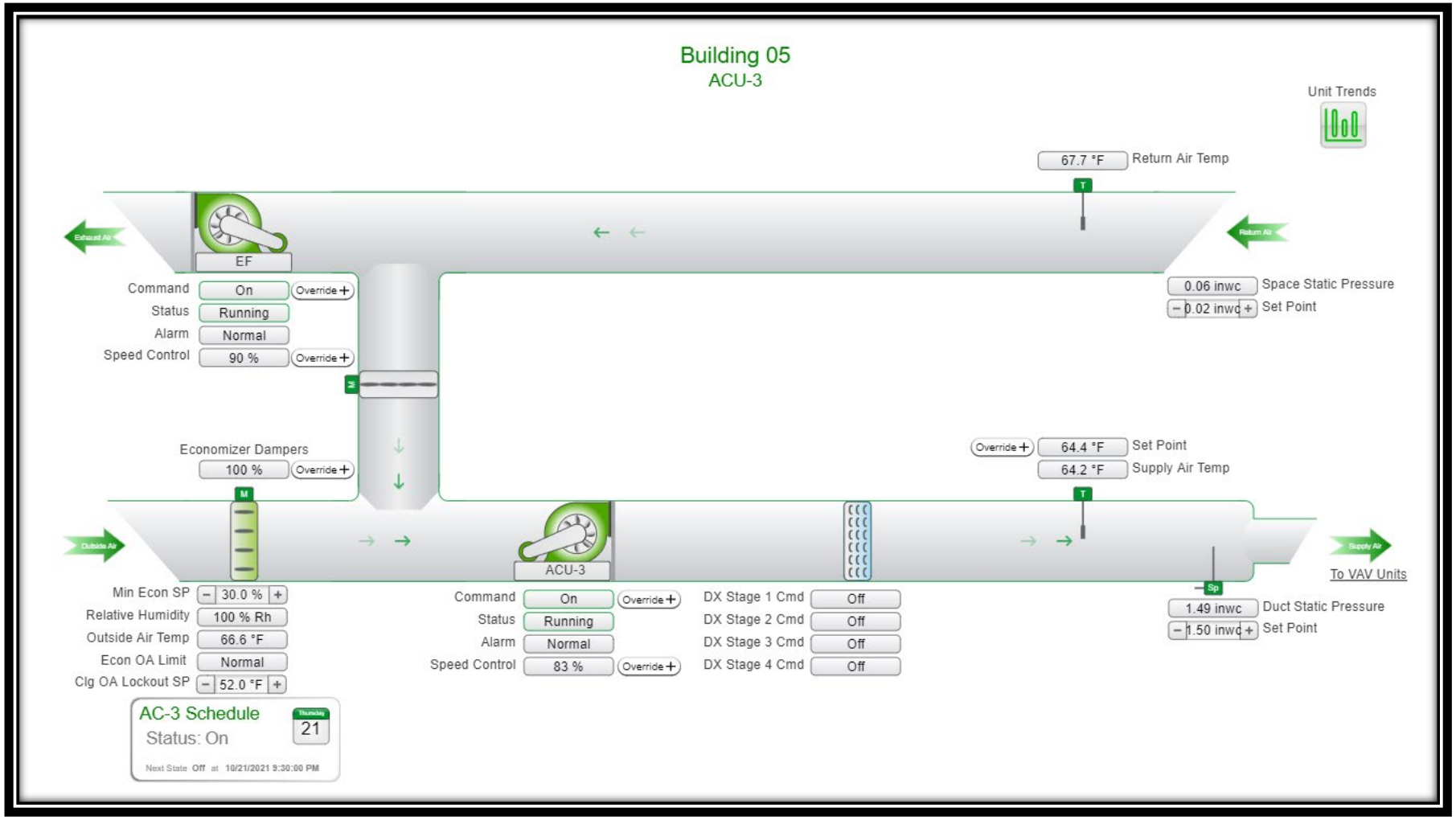
- Serves 2 meeting rooms
- Constant air volume system
- 100% fresh air unit
- Dedicated 2-stage cooling system for each unit
- Building automation system continuously monitors the units and generates alarm to facilities team if not functioning properly
- Trending



Skyline B5 – Typ. Of 4 Air Conditioning Units (ACU)

ACUs:

- Serves majority of the building
- Variable air volume system
- Fresh air intake in each air handler
- Economizer capabilities
- Dedicated 4-stage cooling system for each unit
- Building automation system continuously monitors the units and generates alarm to facilities team if not functioning properly
- Trending capable



Skyline B5 – Variable Air Volume units (VAVs)

Fed from ACU-1 & ACU-2

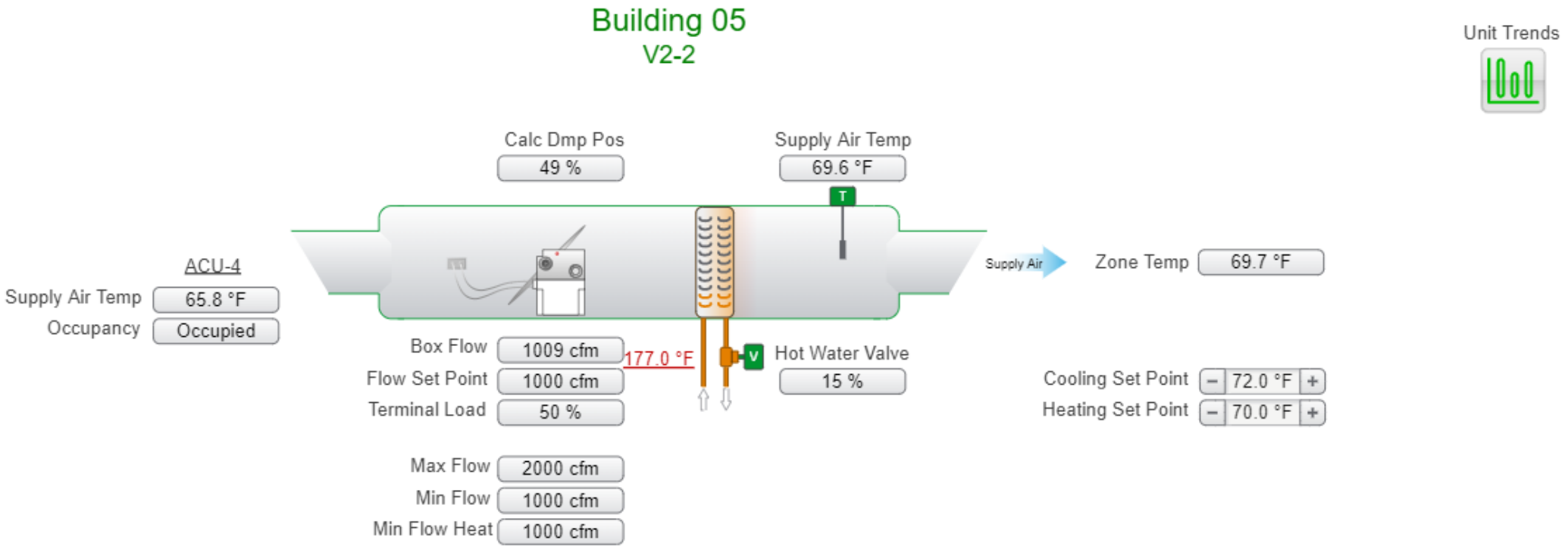
Unit #	Room #	Air Source	Inc in Temp Reset	Room Temp	Clg Set Point	Htg Set Point	Supply Air Temp	Hw Valve	Damper Pos	Box Flow	Flow Set Point	Pb State	Pb Time Remain
V1-1	5-103	ACU-2	☑	71.3 °F	70.5 °F	66.0 °F	68.3 °F	0.0 %	86.0 %	1337.0 cfm	1599.8 cfm	NA	NA
V1-2	5-175	ACU-1	☑	621.8 °F	69.0 °F	66.0 °F	72.4 °F	0.0 %	71.0 %	1095.5 cfm	1599.8 cfm	NA	NA
V1-3	5-104	ACU-2	☑	71.0 °F	72.0 °F	69.8 °F	68.1 °F	0.0 %	47.0 %	411.1 cfm	408.9 cfm	NA	NA
V1-4	5-106	ACU-2	☑	70.2 °F	69.0 °F	66.0 °F	70.1 °F	0.0 %	97.0 %	936.5 cfm	949.3 cfm	NA	NA
V1-5	5-109	ACU-2	☑	70.1 °F	71.0 °F	69.0 °F	68.7 °F	0.0 %	48.0 %	436.5 cfm	478.9 cfm	NA	NA
V1-6	Media Viewing 5-100C	ACU-2	☑	70.0 °F	72.0 °F	70.0 °F	68.3 °F	3.0 %	57.0 %	1171.7 cfm	1250.1 cfm	NA	NA
V1-7	Equip Circulation 5-100C	ACU-2	☑	69.9 °F	72.0 °F	70.0 °F	68.7 °F	9.6 %	48.0 %	671.7 cfm	699.2 cfm	NA	NA
V1-8	5-117	ACU-2	☑	70.7 °F	72.0 °F	70.0 °F	68.5 °F	0.0 %	48.0 %	417.4 cfm	449.2 cfm	NA	NA
V1-9	5-118	ACU-2	☑	69.2 °F	68.7 °F	66.7 °F	68.5 °F	0.0 %	95.0 %	459.8 cfm	436.5 cfm	NA	NA
V1-10	5-132B	ACU-1	☑	69.5 °F	68.5 °F	66.0 °F	68.3 °F	0.0 %	96.0 %	945.0 cfm	934.4 cfm	NA	NA
V1-11	5-132	ACU-1	☑	70.6 °F	74.0 °F	69.0 °F	68.7 °F	0.0 %	42.0 %	218.2 cfm	247.9 cfm	NA	NA
V1-12	5-131	ACU-1	☑	70.9 °F	73.0 °F	72.0 °F	71.7 °F	38.7 %	63.0 %	1031.9 cfm	998.0 cfm	NA	NA
V1-13	5-131A	ACU-1	☑	72.5 °F	73.0 °F	72.0 °F	71.7 °F	0.0 %	81.0 %	428.0 cfm	419.5 cfm	NA	NA
V1-14	Lobby 5-100	ACU-1	☑	70.8 °F	73.0 °F	72.0 °F	71.9 °F	40.6 %	49.0 %	1004.3 cfm	998.0 cfm	NA	NA
V1-15	5-100A	ACU-1	☑	71.5 °F	72.0 °F	70.0 °F	68.7 °F	0.0 %	64.0 %	2057.4 cfm	1750.2 cfm	NA	NA
V1-16	Tutoring Area 5-100B	ACU-2	☑	71.0 °F	74.0 °F	72.0 °F	69.4 °F	47.5 %	82.0 %	1440.8 cfm	1099.7 cfm	NA	NA
V1-17	Skills Lab 5-100D	ACU-1	☑	72.5 °F	74.0 °F	71.0 °F	100.5 °F	0.0 %	56.0 %	1053.1 cfm	902.6 cfm	NA	NA
V1-18	5-115	ACU-1	☑	70.7 °F	68.0 °F	65.0 °F	68.5 °F	0.0 %	91.0 %	786.1 cfm	750.1 cfm	NA	NA
V1-19	5-133	ACU-1	☑	69.8 °F	72.0 °F	70.0 °F	69.1 °F	7.1 %	39.0 %	750.1 cfm	798.8 cfm	NA	NA
V1-20	5-114	ACU-1	☑	70.7 °F	68.0 °F	65.0 °F	68.6 °F	0.0 %	100.0 %	762.8 cfm	699.2 cfm	NA	NA
V1-21	5-132F	ACU-1	☑	72.5 °F	74.0 °F	73.0 °F	88.4 °F	18.7 %	75.0 %	131.4 cfm	122.9 cfm	NA	NA
V1-22	5-132I	ACU-1	☑	71.8 °F	73.0 °F	72.0 °F	72.4 °F	5.0 %	64.0 %	205.5 cfm	199.2 cfm	NA	NA

Skyline B5 – Variable Air Volume units (VAVs) Contd.

Fed from ACU-3 & ACU-4

Unit #	Room #	Air Source	Inc in Temp Reset	Room Temp	Clg Set Point	Htg Set Point	Supply Air Temp	Hw Valve	Damper Pos	Box Flow	Flow Set Point	Pb State	Pb Time Remain
V2-1	5-200A	ACU-3	☑	69.1 °F	− 72.0 °F +	− 70.0 °F +	76.5 °F	42.5 %	61.0 %	1205.6 cfm	1000.1 cfm	NA	NA
V2-2	5-200B	ACU-4	☑	69.7 °F	− 72.0 °F +	− 70.0 °F +	69.2 °F	14.5 %	50.0 %	998.0 cfm	1000.1 cfm	NA	NA
V2-3	5-200A	ACU-4	☑	68.5 °F	− 72.0 °F +	− 70.0 °F +	65.1 °F	73.5 %	48.0 %	1474.7 cfm	1500.2 cfm	NA	NA
V2-4	5-200B	ACU-4	☑	71.3 °F	− 72.0 °F +	− 70.0 °F +	65.6 °F	0.0 %	49.0 %	466.2 cfm	470.4 cfm	NA	NA
V2-5	5-207	ACU-3	☑	70.3 °F	− 72.0 °F +	− 70.0 °F +	65.2 °F	0.0 %	45.0 %	894.2 cfm	900.5 cfm	NA	NA
V2-6	5-207	ACU-3	☑	70.5 °F	− 74.0 °F +	− 72.0 °F +	103.8 °F	77.5 %	43.0 %	252.1 cfm	250.0 cfm	NA	NA
V2-7	5-208	ACU-3	☑	69.4 °F	− 72.0 °F +	− 70.0 °F +	65.6 °F	32.6 %	52.0 %	989.5 cfm	900.5 cfm	NA	NA
V2-8	5-211	ACU-3	☑	71.1 °F	− 74.0 °F +	− 72.0 °F +	74.7 °F	44.0 %	57.0 %	1040.4 cfm	902.6 cfm	NA	NA
V2-9	5-201	ACU-3	☑	71.8 °F	− 70.0 °F +	− 68.0 °F +	64.5 °F	0.0 %	100.0 %	544.6 cfm	548.8 cfm	NA	NA
V2-10	5-217	ACU-3	☑	70.4 °F	− 68.0 °F +	− 66.0 °F +	621.8 °F	0.0 %	100.0 %	1205.6 cfm	1199.3 cfm	NA	NA
V2-11	5-203	ACU-3	☑	70.8 °F	− 67.0 °F +	− 65.0 °F +	64.8 °F	0.0 %	99.0 %	495.8 cfm	500.1 cfm	NA	NA
V2-12	5-200A	ACU-4	☑	71.7 °F	− 72.0 °F +	− 70.0 °F +	64.8 °F	0.0 %	70.0 %	919.6 cfm	917.5 cfm	NA	NA
V2-13	5-200B	ACU-4	☑	71.7 °F	− 75.0 °F +	− 73.0 °F +	71.6 °F	60.0 %	46.0 %	1491.7 cfm	1500.2 cfm	NA	NA
V2-14	5-211	ACU-3	☑	72.5 °F	− 75.0 °F +	− 73.0 °F +	71.6 °F	24.5 %	59.0 %	815.8 cfm	798.8 cfm	NA	NA
V2-15	5-200B	ACU-4	☑	70.0 °F	− 72.0 °F +	− 70.0 °F +	65.3 °F	0.0 %	49.0 %	1508.6 cfm	1500.2 cfm	NA	NA
V2-16	5-200E	ACU-3	☑	68.0 °F	− 67.0 °F +	− 65.0 °F +	64.9 °F	0.0 %	91.0 %	1646.4 cfm	1801.0 cfm	NA	NA

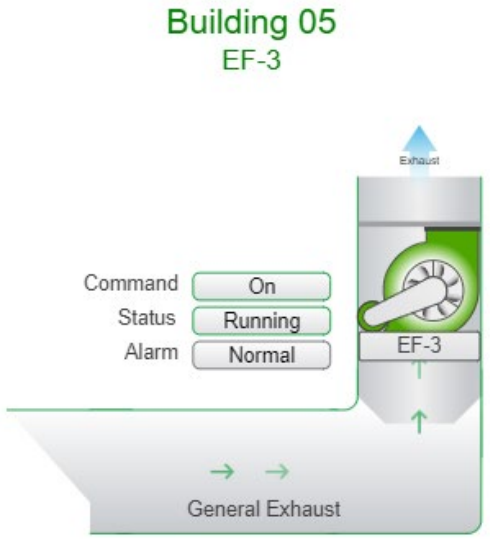
Skyline B5 – Typ. of Variable Air Volume units (VAVs)



VAVs:

- Regulates air flow to each space based on cooling and ventilation demands in the space
- Building automation system continuously monitors the units and generates alarm to facilities team if space temperature goes out of range
- Trending

Skyline B5 – Typ. of Exhaust Fans (EFs)



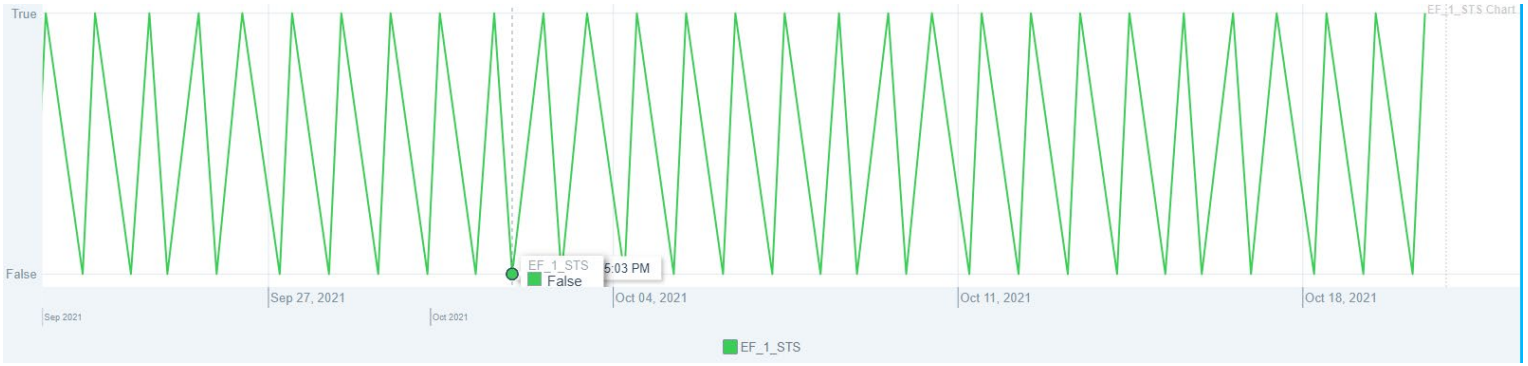
EFs:

- Serves Restroom and Custodial spaces
- Building automation system continuously monitors the units and generates alarm to facilities team if not functioning properly
- Trending

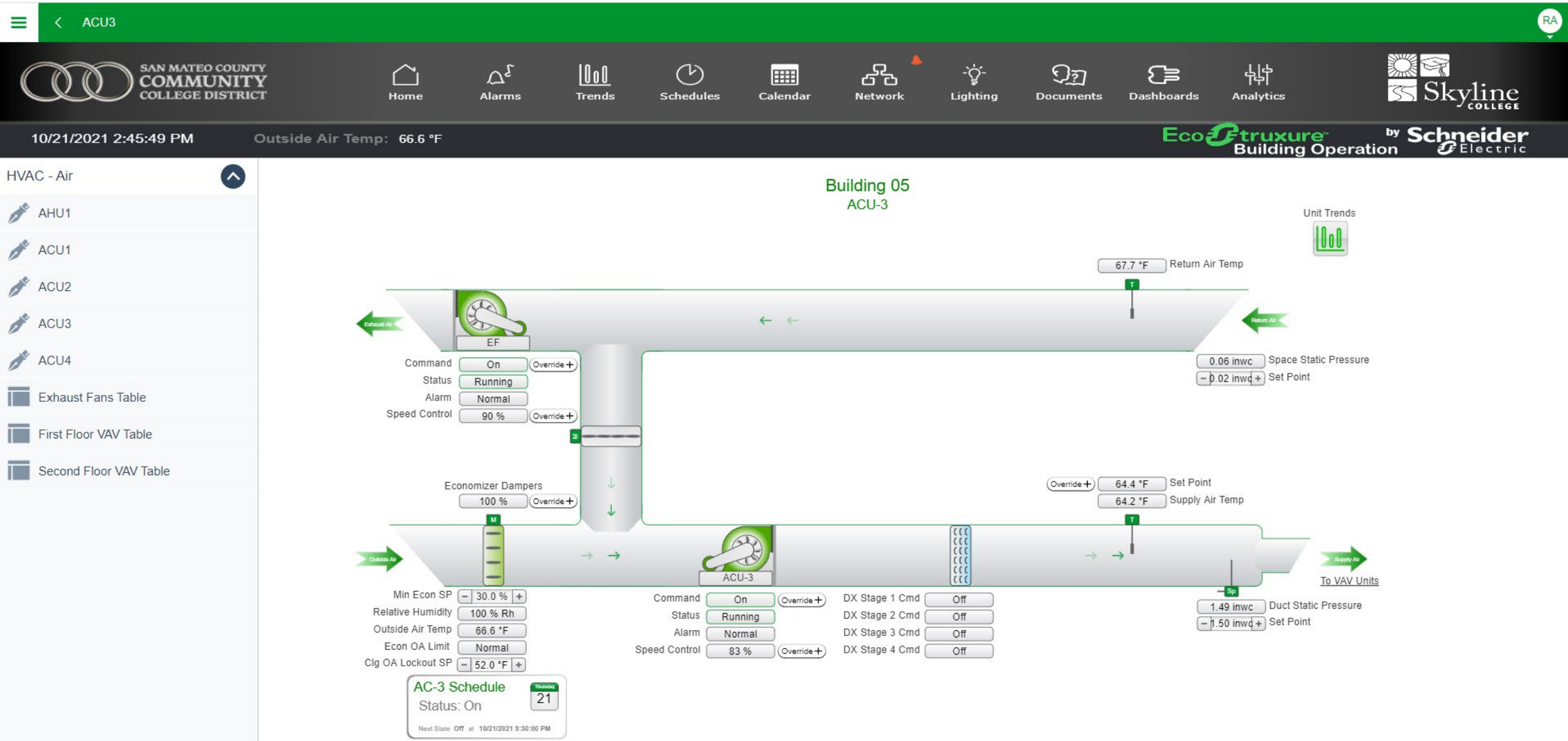
Building 05
Exhaust Fans

Exhaust Fans

Unit #	Area Served	BMS Command	Status	Alarm
EF-1	---	On	Running	Normal
EF-2	---	On	Running	Normal
EF-3	---	On	Running	Normal



Skyline B5 –Sample BMS Graphics



Attachment 2: Most recent mold report from Denali

Denali, Inc.

2255 Morello Avenue, Suite 208 **Tel: (925) 570-9957**
Pleasant Hill, California 94523 **Website: www.thedenaligroup.com**

May 27, 2021

John Doctor
Facility Manager
Skyline College
San Mateo County Community College District
3300 College Drive, San Bruno, CA 94066

RE: SKY B5 Library Mold Testing

Dear John:

The Denali Group (Denali) is pleased to submit this summary report of air sampling for mold in Skyline B5 Library building based upon the visual inspection and air testing conducted on May 18, 2021 in specific areas.

The report documents the conditions observed or monitored at the time of Denali's site visit.

Project Objectives

The project approach for the inspection and testing included the following:

- Visually inspect areas identified by Facilities with water staining on ceiling tiles for indications of mold growth, and
- Collect air samples using mold-spore traps from specific areas identified by Facilities and submit samples for lab analysis to an accredited laboratory.

Summary of Findings

A Facilities representative accompanied Denali during the building inspection and air sampling activities. This provided historical information regarding building history. Denali observed building conditions during the walk through and air testing.

Denali visually inspected the following building areas where leaks had previously occurred:

1. SKY B5 Room 5200B Reading/Study Room – Facilities indicated that a few ceiling tiles on the east side of this room had water staining present. Denali personnel used a ladder gain access to the area and to visually inspected the ceiling areas above those tiles. and did not observe any visible mold growth or water intrusion present. There are roof drain lines present in these areas. However, no visual indications of water releases or visible mold growth on adjacent walls or ceiling surfaces were observed. An air sample was also collected in Room 5200B.

2. SKY B5 Room 5102A and B5131 were also visually inspected and some minor water staining was observed. There were no visual indications of mold growth in either room. Air samples were also collected from each room.

Denali collected air samples for mold spores from the following areas:

- SKY B5 Level 1:

    1. Rm 5000 Lobby
    2. Rm 5100C Read/Study
    3. Rm 5100A Read/Study
    4. Rm 5102A Classroom
    5. Rm5131 Office Services
    6. Rm 5132 Read/Study
    7. Rm 5172 Corridor North Area

- SKYB B5 Level 2:

    1. RM 5214 Lobby
    2. Rm 5200A Stacks
    3. Rm 5200B Read/Study Room
    4. RM 5207 Processing Room
    5. Rm 5200E Library Classroom
    6. Rm 5211 Read/Study

- Outside SKY B5 West Side

The air samples were collected using a Bio-Pump Plus and Versa Trap- non-viable mold spore traps). Samples were collected for five minutes at a pump rate of 15 liters per minute. The samples were submitted to Micro Analytical

Laboratories, an accredited environmental microbiological laboratory located in Emeryville, California for analysis on a normal turn around basis. Chain of Custody procedures were used. The laboratory report can be found in attached to this report. Micro Analytical is accredited by the American Industrial Hygiene Association as AIHA-I-AP, LLC EML,AP Accreditation ID. 101768.

A summary of the air sample laboratory results appears below in Table 1.

TABLE 1 - Summary of Air Sample Results- Non-Viable Airborne Mold Spores - Skyline College, May 18, 2021

Building Location	Non-viable Fungal Spore (spores/m^3)
SKY B5 Level 1	
Rm 5000 Lobby	13
Rm 5100A Read/Study	67
Rm 5100C Read/Study	13
Rm 5102A Classroom	<13
Rm 5131 Office Services	27
Rm 5132 Read/Study	213
Rm 5172 Corridor North Area	27
Rm 5200A Stacks	<13
SKY B5 Level 2	
Rm 5200B Read/Study	<13
Rm 5200E Library Classroom	13
Rm 5207A Processing Room	<13
Rm 5211 Read/Study	53
Rm 5214 Lobby	<13
Outside SKY B5 Westside	427

Conclusions

Based on the site inspection observations and the laboratory air sample results, Denali did not observe the presence of visible mold growth in building interior areas. The air sample results reported that the airborne mold spores were extremely low, and in several instances, at or below the lower limits of the laboratory protocol reporting limits of <13 spores per cubic meter. Also attached are references to suggested guidelines for interpreting mold spore laboratory results.

Based on our observations of the building's interior conditions in SKY B5 and air sample laboratory results, Denali believes that SKY B5 is suitable for occupancy and use.

Limitations

This report has been prepared by Denali, Inc. to assist the Skyline College with inspecting and collecting air samples to identify potential airborne mold issues in SKY B5. This report may be relied upon for the limited purposes and scope of this study. The observations and conclusions describe only the conditions present at the time of this investigation. Denali cannot be held responsible for any future changes in the facility's conditions or operations unrelated to this scope of work.

The work product and judgment rendered meet the standards of care of our profession at this time. No other warranty expressed or implied is made to the finished product, conclusions, or recommendations included in this report.

If you have any questions or comments. please call me at 925-570-9957.

Sincerely,

Robert g. Kuykendall

Robert G. Kuykendall
Principal Industrial Hygienist
Certified Hazardous Materials Manager No.7948

Suggested Guidelines for Mold Spore and Skin Cell Fragment Concentrations

Residential Buildings (Counts/Cubic Meter) m^3

Suggested Guideline	Total	*Penicillium/ Aspergillus*	Ascospores/ Basidiospores	*Cladosporium*	Zygomycetes	Skin Cell
"Average" Clean Residence	<1,800	<600	<200	<100	<100	<9,000
"Clean" Residence (Maximum)	<3,000	<1,400	*<900	*<800	<600	<16,000
Indoor Contamination Present	***>8,000	>4,000	*>1,500	*>600	>700	>20,000
Indoor Amplification May Be Occurring	*>12,000	>8,000	*>1,500	*>1,350	>1,000	**>30,000

Reference: ***Airborne Mold Spore Concentrations in Commercial & Residential Buildings,*** Daniel M. Baxter, Environmental Testing Associates, San Diego, CA., 1995.

***** May depend on outside spore concentration for each species.
** Based on mean plus standard deviation of contaminated residences indicating inadequate housekeeping
*** Based on median of contaminated residences.

Summary of Mold Spore Species Distribution

Building Type	*Penicillium/ Aspergillus*	Ascospores/ Basidiospores	*Cladosporium*	Zygomycetes	Skin Cell Fragments
"Clean" Commercial Buildings	37%	24%	11%	5%	23%
"Contaminated" Commercial	66%	6%	4%	10%	14%
"Clean" Residential Buildings	39%	18%	21%	<1%	22%
"Contaminated" Residential	20%	76%	1%	1%	2%
"Contaminated Buildings Sampled During Drywall	92%	<1%	<1%	5%	3%

Reference: ***Airborne Mold Spore Concentrations in Commercial & Residential Buildings***, Daniel M. Baxter, Environmental Testing Associates, San Diego, CA., 1995.

Appendix A – Laboratory Results

MICRO ANALYTICAL LABORATORIES, INC.

Air Sample Analysis - Non-Viable Spore Trap Report

PROJECT:

BUILDING 5 - LIBRARY
SKYLINE COLLEGE
SAN BRUNO, CA

1102

Bob Kuykendall
The Denali Group
2255 Morello Avenue, Suite 208
Pleasant Hill, CA 94523

Micro Log In **281507**
Total Samples 14
Date Sampled 5/18/2021
Date Received 5/20/2021
Date Analyzed 5/20/2021

Sample ID Number	281507-01		281507-02		281507-03		281507-04	
	5000		5100A		5100C		5131	
Sample Description	LOBBY		LIBRARY ELECTRONIC CARRELS		READ / STUDY ROOM		OFFICE SERVICES	
Volume (Liters)	75.0		75.0		75.0		75.0	
Spore Type	Count	Spores / m³	Count	Spores / m³	Count	Spores / m³	Count	Spores / m³
Alternaria								
Arthrinium								
Ascospores			2	27				
Basidiospores			1	13			2	27
Botrytis								
Chaetomium								
Cladosporium	1	13	2	27	1	13		
Curvularia								
Drechslera / Bipolaris								
Epicoccum								
Fusarium								
Nigrospora								
Oidium								
Penicillium / Aspergillus								
Pithomyces								
Rusts								
Smuts, Periconia, Myxo.								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unidentifiable								
Pestalotiopsis								
Total Spores / m³		13		67		13		27
Comments:	AS = 13.3 spores/m3.		AS = 13.3 spores/m3.		AS = 13.3 spores/m3.		AS = 13.3 spores/m3.	

Microbiology Manager: Nasser Kashani, Ph.D. 5/26/2021 Date Reported

Analysts: BK BK BK BK

AIHA-LAP, LLC EMLAP ACCREDITATION ID #101768. Samples are analyzed by light microscopy, using Micro Analytical Laboratories SOP F19-7 (equivalent to ASTM D7391-17). Explanations: 1) Spore count is calculated using fraction of the sample trace analyzed. The actual number of spores on the sample trace may vary. 2) Spores per m3 are extrapolated based on spore counts. The actual number may vary depending on chosen travere and the fraction of sample analyzed. 3) The genera Aspergillus and Penicillium are placed in the same category. Spores of these fungi and others such as Gliocladium have little size variability and few distinguishing features. 4) A spore is unidentifiable when its morphological features are insufficient for conclusive identification. 5) Although spores are assumed to be randomly distributed on the sample trace, scarce spores may be present but not countable if not within the chosen traverse. 6) This analysis does not evaluate background debris; however, high levels of background particulates can obscure small spores (e.g., Penicillium / Aspergillus) and bias counts. Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. This report must not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. Micro Analytical Laboratories, Inc. shall not be responsible for clients' deviations from any prescribed sampling parameters. Air volumes are based on client data. The lab's verifiability of results is limited to spore counts. N/A = not applicable. Myxo = Myxomycetes. Results of ND (No Spores Detected) are reported as less than (<) the Analytical Sensitivity (AS), which is the concentration calculated from the lowest possible raw count, i.e. 1 spore. The Practical Quantitation Limit (PQL) is approximately four times the analytical sensitivity. Results are field-blank corrected where applicable.

MICRO ANALYTICAL LABORATORIES, INC.

Air Sample Analysis - Non-Viable Spore Trap Report

1102

Bob Kuykendall
The Denali Group
2255 Morello Avenue, Suite 208
Pleasant Hill, CA 94523

PROJECT:

BUILDING 5 - LIBRARY
SKYLINE COLLEGE
SAN BRUNO, CA

Micro Log In **281507**
Total Samples 14
Date Sampled 5/18/2021
Date Received 5/20/2021
Date Analyzed 5/20/2021

Sample ID Number	281507-05		281507-06		281507-07		281507-08	
	5132		5172		5200A		5200B	
Sample Description	READ / STUDY ROOM		CORRIDOR		STACKS		READ / STUDY ROOM	
Volume (Liters)	75.0		75.0		75.0		75.0	
Spore Type	Count	Spores / m³	Count	Spores / m³	Count	Spores / m³	Count	Spores / m³
Alternaria								
Arthrinium								
Ascospores								
Basidiospores			1	13				
Botrytis								
Chaetomium								
Cladosporium	16	213						
Curvularia								
Drechslera / Bipolaris								
Epicoccum								
Fusarium								
Nigrospora								
Oidium								
Penicillium / Aspergillus								
Pithomyces								
Rusts								
Smuts, Periconia, Myxo.								
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unidentifiable								
Pestalotiopsis			1	13				
Total Spores / m³		213		27		< 13		< 13
Comments:	AS = 13.3 spores/m3.		AS = 13.3 spores/m3.		AS = 13.3 spores/m3. NO SPORES DETECTED.		AS = 13.3 spores/m3. NO SPORES DETECTED.	

Microbiology Manager: Nasser Kashani, Ph.D. 5/26/2021 Date Reported

Analysts: BK BK BK BK

AIHA-LAP, LLC EMLAP ACCREDITATION ID #101768. Samples are analyzed by light microscopy, using Micro Analytical Laboratories SOP F19-7 (equivalent to ASTM D7391-17). Explanations: 1) Spore count is calculated using fraction of the sample trace analyzed. The actual number of spores on the sample trace may vary. 2) Spores per m3 are extrapolated based on spore counts. The actual number may vary depending on chosen travere and the fraction of sample analyzed. 3) The genera Aspergillus and Penicillium are placed in the same category. Spores of these fungi and others such as Glocladium have little size variability and few distinguishing features. 4) A spore is unidentifiable when its morphological features are insufficient for conclusive identification. 5) Although spores are assumed to be randomly distributed on the sample trace, scarce spores may be present but not countable if not within the chosen traverse. 6) This analysis does not evaluate background debris; however, high levels of background particulates can obscure small spores (e.g., Penicillium / Aspergillus) and bias counts. Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. This report must not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. Micro Analytical Laboratories, Inc. shall not be responsible for clients' deviations from any prescribed sampling parameters. Air volumes are based on client data. The lab's verifiability of results is limited to spore counts. N/A = not applicable. Myxo = Myxomycetes. Results of ND (No Spores Detected) are reported as less than (<) the Analytical Sensitivity (AS), which is the concentration calculated from the lowest possible raw count, i.e. 1 spore. The Practical Quantitation Limit (PQL) is approximately four times the analytical sensitivity. Results are field-blank corrected where applicable.

MICRO ANALYTICAL LABORATORIES, INC.

Air Sample Analysis - Non-Viable Spore Trap Report

PROJECT:

1102

Bob Kuykendall
The Denali Group
2255 Morello Avenue, Suite 208
Pleasant Hill, CA 94523

BUILDING 5 - LIBRARY
SKYLINE COLLEGE
SAN BRUNO, CA

Micro Log In **281507**
Total Samples 14
Date Sampled 5/18/2021
Date Received 5/20/2021
Date Analyzed 5/20/2021

Sample ID Number	281507-09		281507-10		281507-11		281507-12	
	5200E		5207A		5211		5214	
Sample Description	LIBRARY CLASSROOM		PROCESSING ROOM		STUDY SERVICE		LOBBY	
Volume (Liters)	75.0		75.0		75.0		75.0	
Spore Type	Count	Spores / m³	Count	Spores / m³	Count	Spores / m³	Count	Spores / m³
Alternaria								
Arthrinium								
Ascospores								
Basidiospores					1	13		
Botrytis								
Chaetomium								
Cladosporium	1	13			2	27		
Curvularia								
Drechslera / Bipolaris								
Epicoccum								
Fusarium								
Nigrospora								
Oidium								
Penicillium / Aspergillus								
Pithomyces								
Rusts								
Smuts, Periconia, Myxo.					1	13		
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unidentifiable								
Pestalotiopsis								
Total Spores / m³		13		< 13		53		< 13
Comments:	AS = 13.3 spores/m3.		AS = 13.3 spores/m3. NO SPORES DETECTED.		AS = 13.3 spores/m3.		AS = 13.3 spores/m3. NO SPORES DETECTED.	

Microbiology Manager: Nasser Kashani, Ph.D. 5/26/2021 Date Reported

Analysts: BK BK BK BK

AIHA-LAP, LLC EMLAP ACCREDITATION ID #101768. Samples are analyzed by light microscopy, using Micro Analytical Laboratories SOP F19-7 (equivalent to ASTM D7391-17). Explanations: 1) Spore count is calculated using fraction of the sample trace analyzed. The actual number of spores on the sample trace may vary. 2) Spores per m3 are extrapolated based on spore counts. The actual number may vary depending on chosen travere and the fraction of sample analyzed. 3) The genera Aspergillus and Penicillium are placed in the same category. Spores of these fungi and others such as Gliocladium have little size variability and few distinguishing features. 4) A spore is unidentifiable when its morphological features are insufficient for conclusive identification. 5) Although spores are assumed to be randomly distributed on the sample trace, scarce spores may be present but not countable if not within the chosen traverse. 6) This analysis does not evaluate background debris; however, high levels of background particulates can obscure small spores (e.g., Penicillium / Aspergillus) and bias counts. Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. This report must not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. Micro Analytical Laboratories, Inc. shall not be responsible for clients' deviations from any prescribed sampling parameters. Air volumes are based on client data. The lab's verifiability of results is limited to spore counts. N/A = not applicable. Myxo = Myxomycetes. Results of ND (No Spores Detected) are reported as less than (<) the Analytical Sensitivity (AS), which is the concentration calculated from the lowest possible raw count, i.e. 1 spore. The Practical Quantitation Limit (PQL) is approximately four times the analytical sensitivity. Results are field-blank corrected where applicable.

MICRO ANALYTICAL LABORATORIES, INC.

Air Sample Analysis - Non-Viable Spore Trap Report

1102

Bob Kuykendall
The Denali Group
2255 Morello Avenue, Suite 208
Pleasant Hill, CA 94523

PROJECT:

BUILDING 5 - LIBRARY
SKYLINE COLLEGE
SAN BRUNO, CA

Micro Log In **281507**
Total Samples 14
Date Sampled 5/18/2021
Date Received 5/20/2021
Date Analyzed 5/20/2021

Sample ID Number	281507-13		281507-14					
	5102A		OUTSIDE					
Sample Description	CLASSROOM		OUTSIDE WEST SIDE OF BUILDING					
Volume (Liters)	75.0		75.0					
Spore Type	Count	Spores / m³	Count	Spores / m³	Count	Spores / m³	Count	Spores / m³
Alternaria			1	13				
Arthrinium								
Ascospores			1	13				
Basidiospores			3	40				
Botrytis								
Chaetomium								
Cladosporium			26	347				
Curvularia								
Drechslera / Bipolaris								
Epicoccum								
Fusarium								
Nigrospora								
Oidium								
Penicillium / Aspergillus								
Pithomyces								
Rusts								
Smuts, Periconia, Myxo.			1	13				
Stachybotrys								
Stemphylium								
Torula								
Ulocladium								
Unidentifiable								
Pestalotiopsis								
Total Spores / m³		< 13		427				
Comments:	AS = 13.3 spores/m3. NO SPORES DETECTED.		AS = 13.3 spores/m3.					

Microbiology Manager: Nasser Kashani, Ph.D. 5/26/2021 Date Reported

Analysts: BK BK

AIHA-LAP, LLC EMLAP ACCREDITATION ID #101768. Samples are analyzed by light microscopy, using Micro Analytical Laboratories SOP F19-7 (equivalent to ASTM D7391-17). Explanations: 1) Spore count is calculated using fraction of the sample trace analyzed. The actual number of spores on the sample trace may vary. 2) Spores per m3 are extrapolated based on spore counts. The actual number may vary depending on chosen travere and the fraction of sample analyzed. 3) The genera Aspergillus and Penicillium are placed in the same category. Spores of these fungi and others such as Gliocladium have little size variability and few distinguishing features. 4) A spore is unidentifiable when its morphological features are insufficient for conclusive identification. 5) Although spores are assumed to be randomly distributed on the sample trace, scarce spores may be present but not countable if not within the chosen traverse. 6) This analysis does not evaluate background debris; however, high levels of background particulates can obscure small spores (e.g., Penicillium / Aspergillus) and bias counts. Unless otherwise indicated on this report, all required Quality Control samples have been determined to be in control prior to releasing these results. Unless otherwise stated in this report, all samples were received in acceptable condition for analysis. This report must not be reproduced except in full, without the approval of Micro Analytical Laboratories, Inc., and pertains only to the samples analyzed as received. Micro Analytical Laboratories, Inc. shall not be responsible for clients' deviations from any prescribed sampling parameters. Air volumes are based on client data. The lab's verifiability of results is limited to spore counts. N/A = not applicable. Myxo = Myxomycetes. Results of ND (No Spores Detected) are reported as less than (<) the Analytical Sensitivity (AS), which is the concentration calculated from the lowest possible raw count, i.e. 1 spore. The Practical Quantitation Limit (PQL) is approximately four times the analytical sensitivity. Results are field-blank corrected where applicable.

Client ID # 1102 p 1 of 2

MICRO ANALYTICAL LABORATORIES, INC.

5900 Hollis St., Suite M, Emeryville, CA 94608
(510) 653-0824 - FAX (510) 653-1361 - www.labmicro.com
Chain of Custody Rev. 2/5/2020

Log in # 281507

Name / Client / Address:

Bob Kuykendall
The Denali Group
2255 Morello Avenue, Suite 208
Pleasant Hill, CA 94523

Tel. (925) 570-9957
E-mail denaligp@ix.netcom.com

Job No. Building 5- Library
Skyline College
San Bruno, CA

RUSH!

Number of Samples: 14 | Turn-Around Time: 1 day

Asbestos (TEM) AHERA Yamate II Mod. NIOSH 7402 CARB
Asbestos / Fibers PCM PLM PLM-400 PLM-1200
Asbestos Soil/Rock PLM CARB 435 400 pts. CARB 435 (Mod.) 1200 pts.
Lead Air Paint Soil Wipe
Water Bulk CA WET TCLP
Mold / Fung Air (Spore Trap) Tape Lift Bulk Andersen Swab
Coliform Presence / Absence MTF Sample Temperature (°C)
Other Analyses (Specify)

Micro ID # (For Lab Use Only)	Client Sample ID#	Description	Date Sampled	Time Sampled Start / Stop / Total Minutes	Average LPM	Total Liters	Wipe / Swab Sample Area
1	5000	Lobby	5/18	10:53 / 10:58 / 5	15	75	
2	5100A	Library - Electronic Carrels	5/18	11:00 / 11:05 / 5			
3	5100C	Read/Study Room	5/18	11:07 / 11:12 / 5			
4	5131	Office Services	5/18	11:15 / 11:20 / 5			
5	5132	Read/Study Room	5/18	11:33 / 11:38 / 5			
6	5172	Corridor	5/18	11:40 / 11:45 / 5			
7	5200A	Stacks	5/18	11:50 / 11:55 / 5			
8	5200B	Read/Study Room	5/18	12:00 / 12:05 / 5			
9	5200E	Library Classrm	5/18	12:08 / 12:13 / 5			
10	5207A	Processing Room	5/18	12:15 / 12:20 / 5			

Instructions / Comments: X E-mail To: denaligp@ix.netcom.com
Bio-Pump Plus used w/ SKC Versa traps

Sample Return: YES (NO) If "YES" is checked, samples will be returned to the client or archived at Micro Analytical if required.
If "NO" is checked, solid samples may be disposed of within 60 days (one week for liquid samples, lab suspensions, and digestates).

Sampler's Signature / Name RLKuykendall

Note to Lab: If any samples are not acceptable, record reasons for rejection.

RLKuykendall 5/19/2021 — to Fedex — Relinquished By / Date / Time / Drop Box / Courier

Received By 5/20/21 @ 10:04AM — Date / Time

Relinquished By — Date / Time — Received By — Date / Time

Client ID # 1102 p 2 of 2

MICRO ANALYTICAL LABORATORIES, INC.

5900 Hollis St., Suite M, Emeryville, CA 94608
(510) 653-0824 - FAX (510) 653-1361 - www.labmicro.com
Chain of Custody Rev. 2/5/2020

Log in # 281507

Name / Client / Address:

Bob Kuykendall
The Denali Group
2255 Morello Avenue, Suite 208
Pleasant Hill, CA 94523

Tel. (925) 570-9957
E-mail denaligp@ix.netcom.com

Job No.
Building 5 - Library
SKyline College
San Bruno, CA

RUSH!

Number of Samples: 14 Turn-Around Time: 1 day

Asbestos (TEM) AHERA Yamate II Mod. NIOSH 7402 CARB
Asbestos / Fibers PCM PLM PLM-400 PLM-1200
Asbestos Soil/Rock PLM CARB 435 400 pts. CARB 435 (Mod.) 1200 pts.
Lead Air Paint Soil Wipe
Water Bulk CA WET TCLP
Mold / Fungi (Air (Spore Trap)) Tape Lift Bulk Andersen Swab
Coliform Presence / Absence MTF Sample Temperature (°C)
Other Analyses (Specify)

Micro ID # (For Lab Use Only)	Client Sample ID#	Description	Date Sampled	Time Sampled Start / Stop / Total Minutes	Average LPM	Total Liters	Wipe / Swab Sample Area
11	5211	Study Service	5/18	12:26 12:31 5	15	75	
12	5214	Lobby	5/18	12:35 12:40 5	↓	↓	
13	5102A	Classroom	5/18	11:25 11:30 5			
14	Outside	Outside West side of building	5/18	12:45 12:50 5			
				: :			
				: :			
				: :			
				: :			
				: :			
				: :			

Instructions / Comments: [X] E-mail To: denaligp@ix.netcom.com

Sample Return: YES (NO) If "YES" is checked, samples will be returned to the client or archived at Micro Analytical if required.
If "NO" is checked, solid samples may be disposed of within 60 days (one week for liquid samples, lab suspensions, and digestates).

Sampler's Signature / Name: R Kuykendall

Note to Lab: If any samples are not acceptable, record reasons for rejection.

R Kuykendall 5/19/2021 Drop Box / Courier — Relinquished By — Date / Time

Received By — 5/20/21 @ 10:09pm Date / Time

Relinquished By — Date / Time

Received By — Date / Time

Attachment 3: Graphic shows location of each furnace/exhaust fan unit and the corresponding area it serves in Building 19.

Attachment 4: SKY B19 Air Flow Info

			Air flow (cfm)			
Room No	**Equipment**	**Exhaust**	**Supply**	**Return**	**Exhaust**	**Comments**
209A		RR EF				
211		RR EF				
212		RR EF				
210		RR EF				
309	Furnace		1047	443		
208	Furnace		1014	454		
207	Furnace		381			
207A	Furnace		131			
207B	Furnace		172	470		
206	Furnace		602			
205	Furnace		632	327		
205A	Furnace		218	303		
204	Furnace		813	358		
203						
202	Furnace		464	338		
201	Furnace		513			
200						
101		RR EF				
103						
104						
106						
107						
102		EF				
105		EF			80	
108						
109						
104D		RR EF				
104C	Furnace	EF				
104A	Furnace					
104B	Furnace		40	60		
104C	Furnace		311	353		One furnace was turned off
106	Furnace		63	59		
108						
305A		RR EF				
307		RR EF				
310		RR EF				
308		RR EF				
305	Furnace		1041	421		
306	Furnace		1009	478		
303	Furnace		1815	495		
304	Furnace		405			
303A	Furnace		124			
303B	Furnace		48			
304A	Furnace		736	407		
301	Furnace		841	500		

302	Furnace		405			
302A	Furnace		582	438		
300						
312						
112	Furnace		31			
111	Furnace		131			
110	Furnace		229			
114	Furnace		54			
115		RR EF				
116	Furnace		65		55	
120A		RR EF			71	EF was off
120	Furnace		87			
119	Furnace		471	500		
402A	Furnace					
419						
402	Furnace		559	400		
404	Furnace		948	500		
412D	Furnace					
410C	Furnace		100	49		
412	Furnace			500		
410A	Furnace		85			
410B	Furnace		78			
410	Furnace					
410A	Furnace		60			
410B	Furnace		68			
410C	Furnace		244			
410E	Furnace		52			
410D	Furnace		64	500		
414						
416	Furnace		74	65		
413	Furnace		66	53		
409	Furnace		80	42		
407	Furnace		144	36		
415	Furnace		145	23		
417	Furnace		154	75		
405	Furnace		114	65		
418	Furnace		156	78		
406	Furnace		878	500		
404	Furnace		916	403		

Attachment 5: SKY B5 COVID Ventilation - Evaluation

Campus	Bldg.	Room #	Suffix	Description	Fresh air required by code? (Y/N)	Ventilation (Natural/Mechanical)	Served by (AHU)	Served by (EF)	Filtration (MERV)
SKY	5	100		Lobby	Y	Mechanical	ACU-1		MERV13
SKY	5	100	A	Computer Lab	Y	Mechanical	ACU-1		MERV13
SKY	5	100	B	Read/Study	Y	Mechanical	ACU-2		MERV13
SKY	5	100	C	Read/Study	Y	Mechanical	ACU-2		MERV13
SKY	5	100	D	Read/Study	Y	Mechanical	ACU-1		MERV13
SKY	5	101		Read/Study	Y	Mechanical	ACU-1		MERV13
SKY	5	102	A	Classroom	Y	Mechanical	ACU-2		MERV13
SKY	5	102	B	Read/Study	Y	Mechanical	ACU-2		MERV13
SKY	5	103		Office	Y	Mechanical	ACU-2		MERV13
SKY	5	104		Office	Y	Mechanical	ACU-2		MERV13
SKY	5	105		Office	Y	Mechanical	ACU-2		MERV13
SKY	5	106		Office	Y	Mechanical	ACU-2		MERV13
SKY	5	107		Office	Y	Mechanical	ACU-2		MERV13
SKY	5	108		Office	Y	Mechanical	ACU-2		MERV13
SKY	5	109		Office	Y	Mechanical	ACU-2		MERV13
SKY	5	110		Office	Y	Mechanical	ACU-2		MERV13
SKY	5	111		Office	Y	Mechanical	ACU-2		MERV13
SKY	5	112		Office	Y	Mechanical	ACU-2		MERV13
SKY	5	113		Office	Y	Mechanical	ACU-2		MERV13
SKY	5	114		Read/Study	Y	Mechanical	ACU-1		MERV13
SKY	5	115		Read/Study	Y	Mechanical	ACU-1		MERV13
SKY	5	115	B	Read/Study	Y	Mechanical	ACU-1		MERV13
SKY	5	116		Storage	N				
SKY	5	117		Shop	Y	Mechanical	ACU-2		MERV13
SKY	5	117	A	Office	Y	Mechanical	ACU-2		MERV13
SKY	5	118		CTTL Front Office	Y	Mechanical	ACU-2		MERV13
SKY	5	118	A	CTTL Office	Y	Mechanical	ACU-2		MERV13
SKY	5	118	B	CTTL Office	Y	Mechanical	ACU-2		MERV13
SKY	5	118	C	CTTL Office	Y	Mechanical	ACU-2		MERV13
SKY	5	118	D	CTTL Office	Y	Mechanical	ACU-2		MERV13
SKY	5	118	E	CTTL Storage	N				
SKY	5	130		Office	Y	Mechanical	ACU-1		MERV13
SKY	5	131		Assistive Technology Lab	Y	Mechanical	ACU-1		MERV13
SKY	5	131	A	Office	Y	Mechanical	ACU-1		MERV13
SKY	5	131	B	Office	Y	Mechanical	ACU-1		MERV13
SKY	5	132		Waiting Room	Y	Mechanical	ACU-1		MERV13
SKY	5	132	A	Storage	N				
SKY	5	132	B	DRC Testing Lab	Y	Mechanical	ACU-1		MERV13
SKY	5	132	C	Electrical	N				
SKY	5	132	D	Storage	N				
SKY	5	132	E	Storage	N				
SKY	5	132	F	Office	Y	Mechanical	ACU-1		MERV13
SKY	5	132	H	Office	Y	Mechanical	ACU-1		MERV13
SKY	5	132	I	Office	Y	Mechanical	ACU-1		MERV13
SKY	5	133		Office	Y	Mechanical	ACU-1		MERV13
SKY	5	133	A	Office	Y	Mechanical	ACU-1		MERV13
SKY	5	134		CTTL Meeting Room	Y	Mechanical	AHU-1		MERV13
SKY	5	135		Meeting Room	Y	Mechanical	AHU-1		MERV13
SKY	5	135	A	Storage	N				
SKY	5	136	A	Air Compressor	N				
SKY	5	136	B	Trash Room	N				
SKY	5	136	C	Mechanical	N				
SKY	5	136	D	Storage	N				
SKY	5	136	E	Elevator	N				
SKY	5	137		Elev Mach	N				
SKY	5	141		Elec/Data	N				
SKY	5	143		Elev Mach	N				
SKY	5	145		Custodial	N	Mechanical		RR EF	
SKY	5	163		Hallway	N				
SKY	5	170		North Stair	N				
SKY	5	171		Hallway	N				
SKY	5	172		Hallway	N				
SKY	5	175		Mens Restroom	N	Mechanical	ACU-1	RR EF	MERV13
SKY	5	176		Custodial	N	Mechanical		RR EF	
SKY	5	177		Womens Restroom	N	Mechanical		RR EF	
SKY	5	178		Hallway	N				
SKY	5	200	A		Y	Mechanical	ACU-3/4		MERV13
SKY	5	200	B		Y	Mechanical	ACU-3/4		MERV13
SKY	5	200	C		Y	Mechanical	ACU-4		MERV13
SKY	5	200	D		Y	Mechanical	ACU-4		MERV13
SKY	5	200	E		Y	Mechanical	ACU-3		MERV13

SKY	5	200	F	Custodial	N	Mechanical		RR EF	
SKY	5	201		Read/Study	Y	Mechanical	ACU-3		MERV13
SKY	5	202		Read/Study	Y	Mechanical	ACU-3		MERV13
SKY	5	203		Read/Study	Y	Mechanical	ACU-3		MERV13
SKY	5	204		Read/Study	Y	Mechanical	ACU-3		MERV13
SKY	5	205		Read/Study	Y	Mechanical	ACU-3		MERV13
SKY	5	206		Read/Study	Y	Mechanical	ACU-3		MERV13
SKY	5	207		Work Room	Y	Mechanical	ACU-3		MERV13
SKY	5	208		Office	Y	Mechanical	ACU-3		MERV13
SKY	5	209		Office	Y	Mechanical	ACU-3		MERV13
SKY	5	210		Office	Y	Mechanical	ACU-3		MERV13
SKY	5	211			Y	Mechanical	ACU-3		MERV13
SKY	5	211	A		Y	Mechanical	ACU-3		MERV13
SKY	5	211	B		Y	Mechanical	ACU-3		MERV13
SKY	5	211	C		Y	Mechanical	ACU-3		MERV13
SKY	5	212		Unisex Restroom	N	Mechanical		RR EF	
SKY	5	213		Unisex Restroom	N	Mechanical		RR EF	
SKY	5	214		Lobby	Y	Mechanical	ACU-3		MERV13
SKY	5	215		Elevator	N				
SKY	5	216		Hallway	N				
SKY	5	217		Men's Restroom	N	Mechanical	ACU-3	RR EF	MERV13
SKY	5	218		Women's Restroom	N	Mechanical		RR EF	
SKY	5	220		Elevator	N				
SKY	5	221		Electrical	N				
SKY	5	230		North Stair	N				
SKY	5	231		Elec/Data	N				
SKY	5	232		Mechanical Room	N				

Appendix C: Skyline College HVAC Systems

Building Number	System Vintage	Building Ventilation Type	HVAC Filtration	Building System Mechanical Heating	Building System Mechanical Cooling	Building Mechanical System Condition	Semi-Annual Preventative Maintenance
1	Modernized CIP 1	Constant Volume / Operable Windows	MERV 13 House Air MERV 8 Independent Systems 100% Outside Air	Central Heating (HHW)	No Cooling	Functional/Candidate for SMSR	Mar-21
2	Under Construction						Apr-21
3	Modernized - CIP 2	Constant Volume / Large Operable Doors	MERV 13	Central Heating (HHW)	No Cooling	Good Condition	Apr-21
3 A-F Portables	New Construction - CIP 3	Constant Volume / Operable Windows	MERV 13	Local Independent Heating	Local Independent Cooling	New	Apr-21
4	New Construction - CIP 2	VAV / Operable Windows	MERV 13	Central Heating (HHW)	No Cooling	Good Condition	Jun-21
5	Modernization - CIP 2	VAV / Operable Windows	MERV 13	Central Heating (HHW)	Direct Expansion Cooling	Functional/Candidate for SMSR	Jun-21
6	New Construction - CIP 2	VAV	MERV 13	Central Heating (HHW)	Chiller Plant	Good Condition	Jun-21

7	Modernization - CIP 2	Constant Volume	MERV 13	Central Heating (HHW)	DX	Functional/Candidate for SMSR	Feb-21
7A	New Construction - CIP 2	VAV	MERV 13	Central Heating (HHW)	No Cooling	Good Condition	Feb-21
8	Modernization - CIP 2	Multiple Systems - VAV & Constant Volume	MERV 13	Central Heating (HHW)	DX	Functional/Candidate for SMSR	Feb-21
9	Modernization - CIP 1	Natural--No Mechanical Ventilation / Operable Garage Doors	N/A	Local Independent Heating - space heater	No Cooling	Good Condition	Feb-21
10	Modernization - CIP 1	Constant Volume / Operable Garage Doors	MERV 13	Local Independent Heating	No Cooling	Good Condition	Feb-21
11	New Construction - CIP 2	Constant Volume / Operable Garage Doors	MERV 13	Local Independent Heating	No Cooling	Good Condition	Jul-21
12	New Construction - CIP 3	VAV	MERV 13	Local Independent Heating	Chiller Plant	New	Jul-21
14	Modernization - CIP 2	Constant Volume / Operable Doors	MERV 13	Local Independent Heating	No Cooling	Good Condition	Jun-21
15	Modernization - CIP 2	Exhaust Fan Only	n/a	Exhaust Fan Only	Exhaust Fan Only	Good Condition	Jul-21
16	New Construction - CIP 3	Constant Volume / Operable Windows	MERV 13	Local Independent Heating	Local Independent Cooling	Good Condition	Jul-21

17	Modernization - CIP 2	Natural / Operable Garage Door	n/a	n/a	n/a	n/a	n/a
18	Modernization - CIP 2	Natural / Operable Windows	n/a	n/a	n/a	n/a	n/a
19	Modernization - CIP 3	Constant Volume / Operable Windows	MERV 13	Local Independent Heating	No Cooling	Good Condition	Jul-21
20	New Construction - CIP 2	Exhaust Fan Only	n/a	No Heating	No Cooling	Good Condition	Jul-21
21	New Construction - CIP 2	Constant Volume / Operable Windows	MERV 8	Local Independent Heating	Local Independent Cooling	Good Condition	May-21
22	New Construction - CIP 2	Constant Volume / Operable Garage Doors	n/a	Local Independent Heating	No Cooling	Good Condition	May-21
23	New Construction - CIP 2	Constant Volume / Operable Garage Doors	n/a	Local Independent Heating	No Cooling	Good Condition	May-21
24	New Construction - CIP 2	Constant Volume / Operable Garage Doors	n/a	Local Independent Heating	No Cooling	Good Condition	May-21
BAEC	Leased Bldg in San Bruno	Constant Volume / Operable Doors	MERV 13	Local Independent Heating	Local Independent Cooling	Unknown at this time	Jul-21