

INDOOR AIR QUALITY (IAQ) UPDATES FOR:

East Leyden High School

**3400 North Rose Street
Franklin Park, Illinois 60131**



Prepared for:

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EXECUTIVE SUMMARY

J.S. Held, LLC has drafted this Indoor Air Quality (IAQ) Program Report for East Leyden High School as a tool to better prepare the school district to effectively handle and openly communicate IAQ concerns. This program is intended to provide the school district with a historical “baseline” of potential IAQ issues in order to develop a preventative approach to minimizing the impact of future IAQ concerns. This program, followed by the annual maintenance program, will assist East Leyden High School in providing a higher quality indoor learning environment and workplace.

J.S. Held has completed the integral components of this program including:

- Interviews with school administrators and other key personnel to identify the extent, if any, of past/present IAQ concerns, complaints, and maintenance issues.
- General conformance to several government recommended IAQ Programs. These programs include the **United States Environmental Protection Agency (USEPA) Indoor Air Quality Tools for Schools Program**, the **USEPA Guidelines for Managing Environmental Issues within Schools**, and previously proposed legislation within the State of Illinois.
- Site inspections and assessment by trained and experienced personnel. Items investigated during the facility inspection process include general visual observations, Heating, Ventilation and Air Conditioning (HVAC) systems, facility design, maintenance upkeep and other related concerns. In addition, the USEPA Tools for Schools Program has developed recommended inspection checklists which were completed as part of the inspection process.
- Environmental monitoring of general building conditions through the use of specialized instrumentation. Environmental parameters monitored during the site visit consist of temperature, relative humidity, carbon dioxide, carbon monoxide, air velocity and ventilation. Results of monitoring were compared to generally accepted guidelines for each environmental parameter.

Having completed the above referenced scope of work, J.S. Held has not identified any major IAQ concerns currently facing the school district. Monitor/mitigate moisture sources entering the building. J.S. Held recommends the district and JS Held continue to monitor the slightly below acceptable levels of humidity reported within the school. Regular maintenance on HVAC systems to ensure they are working properly will help reduce indoor air quality issues within the building. Investigate and repair moisture intrusion issues. Although the site visit has reported minor concerns as identified within this report, J.S. Held believes these items can be addressed to in-house maintenance personnel. The annual maintenance program is designed to monitor these conditions on a semi-annual basis.

SECTION 1 INTRODUCTION

1.1 The IAQ Program

In conjunction with Illinois school administrators, United States Environmental Protection Agency (USEPA) guidance documents and numerous environmental professionals, J.S. Held has developed this IAQ Program designed to assist schools in the identification and control of potentially harmful environmental hazards. Studies have consistently demonstrated that clean, quiet, safe, comfortable, and healthy environments are an important component of successful teaching and learning.

By minimizing the “unknowns” associated with facility conditions, our program empowers risk managers and school administrators to make informed decisions and implement solutions on environmental issues based on data and science rather than hype, fear and misinformation.

Background on IAQ Concerns

According to the United States General Accounting Office, approximately fifteen thousand school facilities suffer from negative indoor air quality factors affecting more than eight million children and other building occupants (General Accounting Office 1995). United States Environmental Protection Agency (USEPA) studies routinely identified the following symptoms – irritated eyes, nose and throat, upper respiratory infections, nausea, dizziness, headaches, fatigue, or sleepiness. Collectively, these symptoms have been referred to as “Sick Building Syndrome (SBS).”

In response to IAQ and SBS concerns, the USEPA has issued guidance documents designed to educate school administrators on potential environmental hazards within the school setting. Specifically, environmental parameters identified in USEPA guidance documents include:

- Asbestos
- Lead
- Radon
- Mold

In addition, USEPA has also developed the “IAQ Tools for Schools” program (www.epa.gov/iaq/) designed to assist school administrators in the identification and control of environmental hazards.

Linking IAQ Conditions to Performance

As more research has been conducted on the subject, the majority of studies generally suggest that poor indoor air quality makes teachers and students sick which in turn affects performance (EPA 2000, Kennedy 2001, Leach 1997). Most studies suggest there is a positive link between poor IAQ conditions and absenteeism (Smedje and Norback 1999). In addition, the American Lung Association reported that American children miss more than ten million school days each year because of asthma exacerbated by poor IAQ conditions (ALA 2002, EPA 2000).

IAQ Baseline Program

This Baseline Program has been developed through consultation with school administrators, facility personnel and a variety of governmental organizations. JS Held has utilized our team's experience and technical capabilities to create a Baseline Program that pulls together and collectively addresses many of the critical elements identified by USEPA through their guidance documents and the "IAQ Tools for Schools" program.

The objective of our Baseline Program is to gain a general and working understanding of environmental conditions at each facility through a combination of visual observation, as well as environmental monitoring for specific parameters. Upon completion, thorough record keeping documents are generated to be used as an effective risk management tool.

Following is a brief overview of the key elements included in J.S. Held's Baseline Program:

- ✓ Interviews with school administrators and other key personnel attempting to identify the extent, if any, of past and current IAQ issues, complaints or maintenance problems. Interview of building occupants reporting potential IAQ problems (if necessary).
- ✓ Visual observation by our inspection team focused on general building conditions, Heating, Ventilation and Air Conditioning (HVAC) systems, design issues, maintenance problems and other related concerns.
- ✓ Environmental monitoring of general building conditions to include temperature, relative humidity, carbon dioxide, carbon monoxide and ventilation.
- ✓ Limited testing of drinking water for lead content.
- ✓ Installation of carbon monoxide detectors.
- ✓ A written Management Plan designed to document and maintain critical elements of the program including preventative maintenance activities and ongoing monitoring.

IAQ Monitoring Program

Following the completion of our Baseline Program, J.S. Held has developed an annual monitoring program to assist school administrators and facility personnel with maintaining our IAQ program.

This program includes:

- ✓ Semi-annual site visits and re-evaluation by the inspection team.
- ✓ Follow-up and documentation of occupant complaints or concerns.
- ✓ Environmental monitoring for temperature, relative humidity, carbon dioxide, carbon monoxide and ventilation.
- ✓ Completion of forms and maintenance of school records within the school facility's IAQ Management Plan.

1.1.1 The USEPA Tools for Schools Kit

According to the USEPA, “the goal of this kit is to provide clear and easily applied guidance that will help prevent indoor air quality (IAQ) problems and resolve such problems promptly if they do arise.” The USEPA created this kit in conjunction with assistance and endorsement from the American Federation of Teachers, Association of School Business Officials, Council for American Private Education, National Education Association, National Parent Teachers Association and the American Lung Association. Following the spirit of this program, JS Held has implemented the basic components of this kit, along with additional inspection and monitoring services to better serve East Leyden High School.



USEPA IAQ TOOLS PROGRAM

As part of this IAQ program, J.S. Held personnel will act as the IAQ Coordinator as defined in the Tools for Schools Kit. J.S. Held personnel have completed the checklists located within the kit during our initial site visit with the assistance of school personnel. JS Held will continue to complete the checklists during our routine site visits as part of our annual maintenance program. During this process, it may be necessary to meet with administration officials, maintenance and custodial staff, school medical provider, teachers and food service professionals to accurately complete the inspection checklists.

1.1.2 Field Investigation / Monitoring

J.S. Held has performed the field investigation checklists located within the Tools for Schools Kit. The site visit included an investigation of classrooms, cafeteria, storage closets, mechanical rooms, and the exterior of the structure. The inspection team spent considerable resources attempting to identify odors, water damage/intrusion, moisture, ventilation, and other potential hazards.

While conducting the site visit, J.S. Held personnel completed the following checklists from the Tools for Schools Kit:

- ◆ Administrative Staff Checklist
- ◆ Buildings and Grounds Maintenance Checklist
- ◆ Food Service Checklist
- ◆ Health Officer/School Nurse Checklist
- ◆ Integrated Pest Management Checklist
- ◆ Renovation and Repair Checklist
- ◆ School Official's Checklist
- ◆ Teacher's Classroom Checklist
- ◆ Ventilation Checklist
- ◆ Walkthrough Inspection Checklist
- ◆ Waste Management Checklist

Completed checklists can be found in Appendix A of this report.

During the site visit, the investigation team utilized several IAQ instruments to evaluate ambient indoor conditions. Monitoring was performed immediately after the release of school allowing for the most accurate readings without interrupting the learning process. The team used an IAQ-Calc Indoor Air Quality Meter® to measure temperature, relative humidity, carbon monoxide and carbon dioxide levels. This instrument is designed for ambient indoor air monitoring conditions. Monitoring results are identified in Section 2.3 for comparison to generally accepted levels provided by the American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) and the USEPA.

SECTION 2 SITE VISIT

2.1 Summary of Previous Indoor Air Quality Activities

Dr. Nick Polyak, Superintendent of East Leyden High School, discussed with J.S. Held previous IAQ concerns at the facility. Following is a summary of previous IAQ concerns:

- In September 2018, the Fitness Center, Councilors Office 120K and Chiller System were investigated due to indoor air quality, water intrusion and potential microbial complaints. Non-viable air sampling analysis revealed slightly elevated levels of several species not found outdoors. The limited IAQ testing also revealed slightly elevated carbon dioxide levels at that time. The areas were to be cleaned as a precautionary measure as only slightly elevated levels of airborne concentrations were noted. It was recommended to introduce additional fresh air into the room and lowering the carbon dioxide levels. Current concerns have sense been handled and results are not included within this IAQ Program report. Generally, building occupant feedback is the best benchmark for determining further concerns.

2.2 Summary of Visual Inspections

J.S. Held personnel, Mr. Harper Burkeen and Mr. Devon Rathbun performed the site visit during the period of May 1st-2nd of 2024. During the site visit, J.S. Held personnel completed the following checklist from the Tools for Schools Kit:

- ◆ Administrative Staff Checklist

The completed checklist can be found in Appendix A of this report.

HVAC System observations

During the site visit, J.S. Held personnel conducted random visual observations of accessible areas of the HVAC systems on the building. The HVAC units all appear to be operating properly. No excess moisture was observed in or around the units at the time of the site visit. The HVAC units appeared to have visible signs of dust and debris on the filters. J.S. Held recommends these filters be replaced. Filters should be changed on a regular basis in accordance with the districts and manufacturer's recommendations.

Local Exhaust Fans

The local exhaust fans throughout the building observed were covered with minor visible dust and debris and needs to be incorporated into the routine maintenance and cleaning program.

Moisture Intrusion

J.S. Held personnel did not observe any water-stained ceiling tile during the site visit.

Other Notes

- J.S. Held personnel observed scented candles, heated wax, air fresheners, etc. within several areas of the school that may produce unwanted odors that could be an issue for some of the staff and students.
- Live plants were observed within several areas of the school at the time of the site visit. Room 206 (1), Library (2), Room 115 (1), Room 116 (3), Room 120F (1), Room 120H (1), Room 121G (1), Room 172 (1), Room 102 (23), Room 019 (11), Greenhouse (63).
- Microwaves, refrigerators, food, and a coffee maker were found in numerous areas at the time of the site visit. Microwaves should be monitored for proper use and clean-up as not to allow food and food remnants to remain that may attract unwanted odors and or pests. Also, cooking with microwaves and coffee makers within these areas may allow unpleasant odors to some occupants that could cause potential indoor air quality complaints. Food items, if not properly stored and cleaned up have the ability to provide unwanted odors and attract pests into the building. Food within these classrooms and others should be monitored by staff to ensure packaging is sealed and remnants are cleaned up properly and disposed of.
- The central lower level of East Leyden High School consists of cafeteria, kitchen, boys and girls locker room and several classrooms are under full construction at time of site visit.

Safety Data Sheets (SDS) should be maintained on-site for all chemicals including air freshening devices. J.S. Held recommends the district implement a Hazard Communication program for the employees regarding the utilization and storage of chemicals within the building and train specific employees on these chemicals, the SDS sheets for these chemicals, proper storage and access to these chemicals.

Monitor animal habitats and aquariums for cleanliness and proper maintenance. J.S. Held recommends a routine maintenance/cleaning schedule be developed and maintained by the district for these items. Furthermore, notification to occupants within these areas regarding the animal habitats should be developed to ensure no allergies may be agitated from these animals/fish.

Monitor the plant life within the school and try to determine if any occupants of the building have predispositions to the plant life within the building prior to subjecting those individuals to the situation with the plants.

J.S. Held recommends monitoring the plants, watering of plants, food storage, coffee makers, mini-fridges, microwaves, candles, etc. that may produce unnecessary odors or contaminants that may be offensive or cause reactions in some personnel. These items along with others such as cleaning supplies, air fresheners, etc. can contribute to indoor air quality complaints and concerns.

The refrigerators within these areas should be monitored by maintenance and administrative personnel to ensure these areas are clean and the refrigerators are operating properly. Spoiled food or food particles from these areas may attract unwanted odors that may cause irritation to occupants, as well, these food items may attract pests if not properly cleaned and housekeeping kept up within these areas. The proper operation of the refrigerators is necessary to keep down on unwanted moisture intrusions within the areas of the refrigerators that could promote microbial growth within the area.

IAQ Monitoring Results

J.S. Held utilized the IAQ-Calc Indoor Air Quality Meter® to measure temperature, relative humidity, carbon dioxide and carbon monoxide throughout the facility. The following is a brief narrative explaining the usefulness of testing for these parameters as well as the results of our testing.

Carbon Dioxide (CO₂)

Building occupants exhale carbon dioxide throughout the course of daily activities. Throughout the day, CO₂ levels will begin to rise. Concentration levels exceeding 1,000 parts per million (ppm) are not uncommon particularly in more energy efficient facilities. It has been suggested by the USEPA that the buildup of CO₂ levels parallel that of other contaminants of greater concern such as carbon monoxide, hydrocarbon vapors, aerosols, tobacco smoke, micro-organisms, and volatile organic compounds.

The American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) recommends a maximum CO₂ level of 1,000 ppm for indoor building occupants. Studies have indicated that levels between 1,500 – 3,000 ppm can have significant health effects on building occupants. Since children have developing respiratory systems, the potential health effects from elevated levels are a target item of concern.

Carbon Monoxide (CO)

According to the USEPA, carbon monoxide is a colorless, practically odorless gas or liquid with the potential to be fatal at high concentrations. At low concentration, carbon monoxide can cause fatigue in healthy people and chest pains for people with heart disease. At elevated concentrations, impaired vision, and coordination; headaches; dizziness; confusion; and nausea. The health effects for children can be even more serious. Average levels for the residential setting are between 0 and 5 parts per million (ppm). Levels over 5 ppm are a benchmark for concern within the school setting.

Temperature / Relative Humidity – Thermal Comfort

A number of variables interact to determine whether people are comfortable with the temperature and relative humidity of the indoor air. The amount of clothing, activity level, age and physiology of people in schools vary widely so the thermal comfort requirements vary for each individual. The American Society of Heating, Refrigerating, and Air-Conditioning Engineers (ASHRAE) Standard 55-1992, describes the temperature and humidity ranges that are comfortable for 80% of people engaged in largely sedentary activities. That information is summarized in the chart below. The ASHRAE Standard assumes “normal” indoor clothing, added layers of clothing reduce the rate of heat loss.

Recommended Ranges of Temperature and Relative Humidity

Relative Humidity	Winter Temperature	Summer Temperature
30%	68.5°F-75.5°F	74.0°F-80.0°F
40%	68.0°F-75.0°F	73.5°F-80.0°F
50%	68.0°F-74.5°F	73.0°F-79.0°F
60%	67.5°F-74.0°F	73.0°F-78.5°F

Source: Adopted from ASHRAE Standard 55-1992, Thermal Environmental Conditions for Human Occupancy.

Humidity is a factor in thermal comfort. Raising relative humidity reduces a person’s ability to lose heat through perspiration and evaporation, so that the effect is similar to raising the temperature. Humidity extremes can also create other IAQ problems. Excessively high or low relative humidities can promote the growth of mold and mildew, and low relative humidities can accelerate the release of spores into the air.

IAQ Meter Readings

J.S. Held personal collected readings from different locations using the IAQ meter to determine the temperature, carbon dioxide, carbon monoxide, and relative humidity throughout the facility. Concentration levels were collected from classrooms, restrooms, mechanical rooms, a sample outside the school for a control, and all other accessible locations.

The following synopsis represents the results of the IAQ Meter Readings. Room readings can be found in Appendix B of this Report.

Carbon Dioxide (CO₂)

Carbon dioxide level readings ranged from 418 ppm to 2390 ppm with the highest measurement obtained from Room 208 office and the lowest measurements were obtained from Room 186. Twenty (20) readings were reported over 1,000 ppm during the site visit. These readings are reported in the appendices.

Exterior: May 2nd, 2024 318 ppm

J.S. Held will continue to monitor carbon dioxide levels as part of this ongoing maintenance.

Carbon Monoxide

Testing throughout the facility indicated 0 ppm of carbon monoxide. Carbon monoxide detectors have been installed in the kitchen and boiler room as early detection warning systems.

Relative Humidity

Testing throughout the facility indicates relative humidity levels between 26%-66%. ASHRAE suggests acceptable ranges of relative humidity within buildings to be between 30%-60%. Majority of the readings during the site visit were within the acceptable ranges for this time of year throughout the school. These measurements have been recorded per room on the attached tables. J.S. Held will continue to monitor as part of the maintenance program. J.S. Held recommends the school district take measures to increase humidity levels and monitor them on a routine basis. These measurements have been recorded per room on the attached tables. Generally, building occupant feedback is the best benchmark for determining appropriate thermal conditions.

Temperature

Testing throughout the facility indicates temperature levels ranging from 67.0°F-75.5°F at the time of the site visit and sampling. These temperature levels reported suggest acceptable ranges of temperatures within the building in comparison to the ASHRAE standards for the time of the year. Continue monitoring these parameters to determine the appropriate thermal conditions are being achieved for the occupant population. Individual occupants' comfort levels may vary but overall, the majority of occupants should be acceptable.

Ventilation

All schools need ventilation, which is the process of supplying outdoor air to occupied areas within the school. As outdoor air is drawn into the school, indoor air is exhausted by fans or allowed to escape through openings, thus removing indoor air pollutants such as restrooms, kitchens, science-storage closets, and fume hoods.

The amount of outdoor air considered adequate for proper ventilation has varied substantially over time. Because updating building codes often takes years, the building code, if any, that was in force when the school HVAC system was designed, may well have required a lower amount of ventilation than what is currently considered adequate. ASHRAE ventilation standards are used as the basis for most building ventilation codes. Below is a table of outdoor air quantities in schools as recommended by ASHRAE Standard 62-1989, *Ventilation for Acceptable Indoor Air Quality*. Please note that this is a limited portion of the Standard and that the quantities listed are in units of CFM/person, which is cubic feet per minute of outdoor air for each person in the area served by that ventilation system.

Recommended Minimum Levels for Outdoor Air Ventilation

Functional Space	CFM per Person
Classroom	15
Music Room	15
Library	15
Auditorium	15
Spectator Sport Area	15
Playing Floors	20
Office Space	20
Conference Room	20
Smoking Lounges	60
Cafeteria	20
Kitchen	15

Source: Adopted from ASHRAE Standard 62-1989, Ventilation for Acceptable Indoor Air Quality

SECTION 3

CONCLUSIONS / RECOMMENDATIONS

Based on the site investigation and testing, J.S. Held has detected no major indoor air quality problems at the facility. Testing of ambient indoor air for environmental parameters such as temperature, carbon dioxide and carbon monoxide have indicated levels within compliance of generally accepted guidelines for most building occupants. The majority of the relative humidity levels during the site visit were at the acceptable ranges for this time of year throughout the school. The maintenance program will allow for a more comprehensive picture of indoor air quality as time goes on.

During the site visit and completion of the Tools for Schools Checklists, J.S. Held personnel identified several small items for consideration. These items include:

- Mitigation of carbon dioxide levels that were reported above 1,000 ppm. J.S. Held LLC recommends contacting a trained HVAC professional to determine if the HVAC systems are operating properly in these areas and if enough fresh air is being introduced as required. If the systems are not operating properly and/or they are not properly sized for the occupant locations correct these deficiencies immediately. If the systems are working properly and are properly sized, more fresh air may need to be introduced into these areas to lower the levels.
- J.S. Held recommends regular maintenance, cleaning, and filter change activities for the HVAC systems throughout the campus in accordance with ASHRAE Standards and the manufacturer's recommendations at a minimum. Manufacturers vary on recommending frequency of filter changes.
- Monitoring of the low relative humidity levels identified during the site visit. If the relative humidity levels continue to remain below 30%, J.S. Held will recommend increasing moisture in the air to raise the humidity levels above 30% to reduce the potential for occupant complaints.
- Cleaning and maintenance of the exhaust fans/grills throughout the school to ensure proper operation of these fans. J.S. Held recommends these areas be incorporated into the facilities' routine cleaning and maintenance plan.
- Drying, cleaning and/or replacement of water-stained ceiling tiles identified in Section 2.2 of this Report. If water leaks are identified during the maintenance process, maintaining these leaks is strongly recommended.
- J.S. Held recommends the district implement a Hazard Communication program for the employees regarding the utilization and storage of chemicals within the building and train specific employees on these chemicals, the SDS sheets for these chemicals, proper storage, and access to these chemicals.

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- Monitor the plant life within the school and try to determine if any occupants of the building have predispositions to the plant life within the building prior to subjecting those individuals to the situation with the plants.
 - J.S. Held recommends monitoring the plants, watering of plants, food storage, coffee makers, microwaves, mini-fridges, candles, etc. that may produce unnecessary odors or contaminants that may be offensive or cause reactions in some personnel. These items along with others such as cleaning supplies, air fresheners, etc. can contribute to indoor air quality complaints and concerns.
 - Monitor food items, microwaves, refrigerators and storage of such items to help reduce odors and potential pest problems within the school building. Food odors may be unpleasant and cause reactions to the odor from some of the building occupants as well as attract unwanted pests into the building. The staff should be responsible for ensuring food and packaging is stored and cleaned up properly after each use.

APPENDIX A
Tools for Schools Checklist Forms

Administrative Staff Checklist

Drain Traps

- Drain Traps Are Filled Regularly
 Need Help Filling Drain Traps Regularly

Excess Moisture

- No Condensate
 Excess Condensate Found

Thermal Comfort

- Room Typically Comfortable
 Need Help, Room Frequently Uncomfortable

Local Exhaust Fans

- No Major Pollutant Generating Activities
 Have Local Exhaust Fan(s)
 Need Local Exhaust Fan(s)
 Local Exhaust Fans Function
 Need Help Evaluating Or Fixing Fan(s)
 Fans Are Used Properly
 Fans Are Not Used Properly

Ventilation

- Located The Unit Ventilator
- Located Air Supply
- Windows Are Operable
- Need Help Determining Type Of Ventilation
- No Problem, Air Is Flowing Without Obstruction
- No Supply Air Or Need Help Removing Obstruction
- No Exhaust Air Or Need Help Removing Obstruction

Printing/Duplicating Equipment

- Equipment Functions Properly
- Need Help Determining Whether Equipment Functions Properly
- Equipment Is Located In Well Ventilated Area Or Separate Room With Appropriate Local Exhaust
- Need Help Moving Equipment Or Minimizing Exposure

Teacher's Classroom Checklist

General Cleanliness

- | Y | N | |
|-------------------------------------|--------------------------|---|
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Classroom is Clean |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Classroom is Dusted and Vacuumed Thoroughly and Regularly |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Trash is Removed Daily |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Food is Not Kept in Classroom Overnight |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Animal Food, if any, is Stored in Tightly Sealed Containers |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Room is Free of Pests |
| <input checked="" type="checkbox"/> | <input type="checkbox"/> | Spills Cleaned |
| <input type="checkbox"/> | <input type="checkbox"/> | Need Help With Cleaning Or Pest Control |

Animals In The Classroom

- Y N
 ___ ___ Exposure to Animal Allergens Minimized
 ___ ___ Animals Kept in Cages as Much as Possible; Not Allowed to Roam
 ___ ___ Cages Cleaned Regularly
 ___ ___ Animals Located Away From Ventilation System Vents to Avoid
Circulating Allergens Throughout the Room or Building
 ___ ___ Alternatives to Animals Used when Possible

_____ Need Help Minimizing Exposure To Animal Allergens

- Y N
 ___ ___ School Nurse Consulted About Student Allergies or Sensitivities (Privacy
Laws May Limit the Information that Health Officials Can Disclose)
 ___ ___ Parents Asked About Potentials Allergies in a Note that Students Take
Home, or During Parent Teacher Conferences
 ___ ___ Check for Allergies When New Students Enter the Class
 ___ ___ Sensitive Students Located Away from Animals and Habitats

_____ Need Help Determining If Students Have Allergies

Drain Traps In The Classroom

- Y N
 ___ ___ Drain Traps Filled Regularly
 ___ ___ Water Poured Down Floor Drains Once Per Week (Approx. 1 Quart of
Water)
 ___ ___ Water Run in Sinks at Least Once Per Week (About 2 Cups of Water)
 ___ ___ If Not Regularly Used, Toilets Flushed Once Each Week

_____ Need Help Filling Dry Drain Traps Regularly

Excess Moisture In Classrooms

- Y N
 ___ ___ Windows, Window Sills, and Window Frames Free of Condensate
 ___ ___ Cold Water Pipes Free of Condensate
 ___ ___ Indoor Surfaces of Exterior Walls Free of Condensate

_____ Excess Condensate Found

Y N

Area Around and Under Classroom Sinks Free of Leaks

Classroom Lavatories Free of Leaks

Ceiling Tiles or Walls Leak-free (Discoloration May Indicate Periodic Leaks)

Found Leaks Or Signs Of Moisture

Thermal Comfort

Y N

Temperature (Generally 72°F-76°F)

No Signs of Draftiness

No Direct Sunlight Shining on Students

___ ___

Humidity is Acceptable. (Typically, Too High if Higher Than 60% Relative Humidity [RH]-or Too Low if Lower Than 30% Relative Humidity)

Room Usually Comfortable

Need Help, Room Frequently Uncomfortable

Ventilation

Y N

Unit Ventilator Located

Air Supply and Return Vents Located

Windows are Operable

Need Help Determining Type Of Ventilation

Y N

Air is Flowing From Air Supply

Need Help, Supply Air Is Not Flowing

Need Help, Exhaust Air Is Not Flowing

Y N

No Smell of Vehicle Exhaust

No Smell of Kitchen/Food

No Smell of "Chemicals"

No Smell of Mold or Mildew

___ ___

Found Source of Odors and Corrected Problem

_____ Need Help, Sometimes Smell Unexplained Or Unpleasant Odors In Classroom

Kitchen and Science Room Fume Hoods

Y N
X _____ No Major Pollutant Generating Activities
X _____ Have Fume Hood and/or Exhaust Fan

_____ Need Fume Hood And/Or Local Exhaust Fan

Y N
X _____ Fume Hoods are in Good Repair; Not Cracked, Broken, or Pulling Away From the Ceiling or Wall
X _____ Fan is Operated. (Note if Fans are Not Operated Due to Noise.)
X _____ Adjacent Room or Halls Odor Free

_____ Need Help, Hood Or Exhaust Fan Does Not Appear To Function Properly

Art Supplies

Y N
X _____ Supplies Okay

_____ Need Help Inventorying Supplies, Interpreting Label Warning, Or Determining If Supplies Are Safe

Y N
X _____ Following Good Handling and Storage Practices

_____ Need Help Developing Good Safety, Handling, or Storage Practices

Y N
X _____ Exposure Minimized

_____ Need Help Minimizing Exposure To Art Supplies

Science Supplies

Y N
X _____ Supplies Reviewed
X _____ MSDS on Hand

_____ Need Help Determining Impacts Of Supplies

Y N

Spill Procedures in Place

All Chemicals Labeled Accurately With Date of Receipt/Preparation and Pertinent Precautionary Information

Supplies Stored According to Manufacturers' Recommendations

Recommended Procedures for Disposal of Used Substances Understood and Followed

Compressed Gas Cylinders Secured

Storage Areas Separate From Main Classroom Area and Ventilated Separately

Need Help With Good Safety, Handling, Or Storage Practices

Y N

Techniques That Require the Least Quantity of Hazardous Materials Used

Fume Hoods Capture Respirable Particles, Gases, and Vapors Released Within Them

Exhaust Fans Operate

Need Help Minimizing Exposure To Supplies

Industrial And Vocational Education Supplies

Y N

Supplies Reviewed

MSDS on Hand

Need Help Determining Impacts Of Industrial/Vocational Supplies

Y N

Spill Procedures in Place

Supplies Stored According to Manufactures' Recommendations

Recommended Procedures for Disposal of Used Substances Understood and Followed

Storage Areas Separate From Main Classroom Area and Ventilated Separately

Need Help With Good Safety, Handling, Or Storage Practices

Y N

Instructional Techniques that Require the Least Quantity of Materials Used

Fume Hoods Capture Respirable Particles, Gases, and Vapors Released Within Them

Exhaust Fans Operate

Need Help Minimizing Exposure To Supplies

Locker Room

Y N

Locker Room and Showers Cleaned Regularly and Properly

Need Help To Have Showers And Locker Room Cleaned Regularly And Properly

Y N

Soiled Clothes and Towels are Removed Regularly

Need Help To Have Soiled Clothes Or Towels Removed Regularly

APPENDIX B
Facility Diagrams / IAQ Meter Results

IAQ Readings		School Name:		East Leyden High School		Page 1	
Room Description		CO2	CO	Temp	Humidity		
Room 200		850	0	71.7	45%		
Room 202		898	0	71.2	42%		
Room 203		590	0	71.5	30%		
Room 204		1532	0	69.9	49%		
Room 205		625	0	70.0	26%		
Room 206		858	0	72.8	47%		
Room 206 A		728	0	72.7	45%		
Room 207		535	0	70.3	25%		
Room 208		2390	0	69.0	52%		
Room 209		711	0	72.1	38%		
Room 209 A		628	0	73.0	35%		
Room 209 B		619	0	73.2	35%		
Room 209 C		720	0	73.3	41%		
Room 209 F		625	0	73.4	45%		
Room 209 K		736	0	73.2	46%		
Room 210		802	0	74.1	40%		
Room 252		512	0	70.2	37%		
Room 252 A		532	0	70.0	36%		
Room 252 B		534	0	70.8	36%		
Room 252 C		522	0	70.9	37%		
Room 252 D		521	0	70.8	35%		
Room 252 E		539	0	70.6	37%		
Room 252 F		489	0	70.5	36%		
Room 250 A		769	0	70.1	37%		
IAQ Readings		School Name:					
Room Description							

Room 250 B	804	0	70.3	39%
Library	744	0	71.5	34%
Room 250 C	752	0	72.0	47%
Room 212	722	0	70.6	39%
2nd Floor Hallway	769	0	71.0	39%
Womens RR 213	724	0	71.0	40%
Room 214	719	0	70.8	37%
Room 216	591	0	70.6	31%
Room 215	721	0	70.9	34%
Room 217	839	0	70.4	32%
Room 218	863	0	69.2	38%
Mens RR 219	901	0	70.7	40%
Room 220	976	0	71.1	47%
Room 220 A	662	0	70.7	33%
Room 220 B	860	0	72.0	42%
Room 220 C	708	0	71.5	35%
Room 220 D	747	0	71.2	35%
Room 220 E	741	0	71.2	34%
Room 222	883	0	71.2	42%
IAQ Readings	School Name:			
Room Description				
Room 223	1090	0	70.3	51%
North Gym 224	927	0	71.5	49%
Room 231	821	0	71.4	45%
Room 233	1210	0	72.6	48%
Room 233 A	1231	0	72.3	45%
Room 233 B	1238	0	72.4	45%

Room 235	1185	0	72.4	47%
Room 237	1067	0	72.2	45%
Room 239	935	0	69.6	42%
Room 240	885	0	70.6	36%
Room 241	660	0	71.2	37%
Room 242	564	0	73.4	33%
Room 243	856	0	71.7	42%
Room 245	838	0	71.9	43%
Room 244	701	0	71.8	37%
Room 247	830	0	71.3	42%
Room 246	754	0	71.9	38%
Mens RR 249	558	0	71.5	34%
Room 261	487	0	71.6	31%
Room 261 A	460	0	71.9	30%
Room 263	454	0	71.7	28%
Room 262	446	0	70.8	29%
Room 265	474	0	71.4	29%
Room 266	439	0	70.7	33%
Room 266 A	424	0	73.0	30%
IAQ Readings	School Name:			
Room Description				
Room 267	494	0	71.6	30%
Room 271 A	452	0	71.6	28%
Room 271 B	597	0	71.7	30%
Room 271 C	503	0	71.8	30%
Room 271 D	448	0	71.7	28%
Room 271 Kitchen	482	0	72.3	28%

Womens RR 270	466	0	71.6	31%
Room 272	648	0	71.9	30%
Room 272 A	549	0	72.0	31%
Room 272 B	628	0	71.8	30%
Room 273	487	0	72.5	29%
Room 273 B	480	0	73.7	29%
Room 273 A	500	0	73.3	29%
Room 274	470	0	72.7	27%
Room 275	450	0	73.2	27%
Room 291	602	0	72.4	35%
South Gym 290	714	0	73.4	54%
Room 292	567	0	73.0	32%
Room 292 A	586	0	73.3	35%
Room 292 B	528	0	73.2	35%
Room 294	523	0	72.1	31%
Room 293	451	0	74.3	24%
Room 295	540	0	73.1	29%
Room 296	653	0	72.5	29%
Room 101 A	577	0	75.5	38%
IAQ Readings	School Name:			
Room Description				
Room 101 B	614	0	74.9	33%
Room 101	641	0	70.8	48%
Room 100	724	0	71.8	48%
Room 102	672	0	70.9	48%
Room 103	624	0	71.8	42%
Room 103 A	586	0	71.6	41%

Room 103 B	682	0	71.8	41%
Assistant Principal Office	627	0	71.7	40%
Room 103 C RR	618	0	72.3	39%
Room 103 D	564	0	72.0	38%
Room 103 E	539	0	72.8	39%
Room 104	623	0	74.1	34%
Room 105	532	0	73.8	35%
Room 105 A	529	0	74.0	36%
Room 105 B	546	0	73.9	37%
Room 105 C	579	0	74.1	36%
Room 105 D	521	0	73.6	35%
Room 106	627	0	74.0	35%
Room 106 A	544	0	73.5	36%
Room 106 B	592	0	73.6	34%
Room 107	508	0	72.6	26%
Room 108	549	0	72.7	33%
Room 109	572	0	70.3	34%
Womens RR 112	545	0	71.8	33%
IAQ Readings	School Name:			
Room Description				
Room 110 Nurse Office	544	0	71.3	34%
Room 110 D	527	0	71.2	35%
Mens RR 111	579	0	72.2	35%
Room 113	581	0	72.3	34%
Room 114	592	0	72.1	34%
Room 115	549	0	71.7	30%
Room 116	627	0	71.2	34%

Room 118	522	0	69.8	34%
Mens RR 119	536	0	70.2	35%
Room 120 E	761	0	71.4	41%
Room 120 A	1186	0	70.7	46%
Room 120 B	1180	0	70.9	46%
Room 120 C	1238	0	71.4	46%
Room120 D	1203	0	71.4	47%
Room 120 F	1081	0	71.1	46%
Room 120	1212	0	70.7	48%
Room 120 G	1330	0	71.3	50%
Room 120 H	1252	0	71.2	49%
Room 120 J	1310	0	71.3	51%
Room 120 K	1352	0	71.4	50%
121 Hallway	930	0	74.0	35%
Room 121 A	736	0	72.9	35%
Room 121 B	660	0	72.8	34%
Room 121 D	665	0	72.5	34%
IAQ Readings	School Name:			
Room Description				
Room 121 E	651	0	72.7	33%
Room 121 F	655	0	72.8	34%
Room 121 G	657	0	73.5	33%
Room 121 H	655	0	73.4	34%
Field House	824	0	72.8	36%
Mens RR 125	692	0	72.4	38%
Room 130 B	673	0	72.5	42%
Womens RR 127	734	0	72.4	41%

Room 124	686	0	72.4	38%
Room 124 D	760	0	71.3	41%
Room 124 C	778	0	72.3	42%
Room 124 B	718	0	72.2	41%
Room 124 A	732	0	72.5	40%
Room 126	641	0	72.0	37%
Room 126 B	639	0	72.1	38%
Room 128	557	0	70.1	35%
Room 129 A	611	0	71.5	35%
Room 129	574	0	72.1	30%
Room 133	479	0	72.2	28%
Room 135	532	0	72.2	29%
Room 137	704	0	70.2	40%
Room 139	629	0	70.1	40%
Room 140	572	0	73.5	34%
Womens RR 141	517	0	71.4	33%
Room 142	510	0	74.1	31%
IAQ Readings	School Name:			
Room Description				
Room 143	644	0	70.8	39%
Room 144	549	0	71.9	31%
Room 145	623	0	70.8	38%
Room 146	633	0	70.0	32%
Room 147	738	0	70.3	40%
Mens Restroom 149	723	0	70.2	41%
Room 150	643	0	70.1	40%
Room 151	731	0	72.2	41%

1st Floor Hallway	691	0	70.1	34%
Room 152	534	0	69.4	34%
Room 152 A	498	0	69.2	36%
Room 152 B	442	0	67.0	26%
Room 152 C	528	0	69.9	30%
Room 152 D	493	0	70.3	28%
Room 152 E	493	0	70.3	28%
Room 152 F	532	0	70.3	31%
Room 152 G	487	0	69.3	30%
Room 152 H	484	0	70.8	30%
Room 154	562	0	71.0	32%
Room 154 A	521	0	70.8	34%
Room 154 B	564	0	70.3	34%
Room 152 J	613	0	69.8	33%
Room 152 K	541	0	69.7	33%
Room 160	475	0	69.8	45%
Room 161	463	0	70.2	37%
IAQ Readings	School Name:			
Room Description				
Room 161 A	482	0	71.3	35%
Room 162	443	0	71.5	32%
Room 163	426	0	69.9	26%
Room 162 A	474	0	71.5	46%
Room 164	426	0	71.0	26%
Room 165	460	0	71.9	29%
Room 167	441	0	70.7	29%
Room 166	433	0	73.3	31%

Room 168	475	0	70.8	39%
Room 168 Office	435	0	70.9	41%
Womens RR 170	681	0	71.0	39%
Room 171 A	524	0	70.9	38%
Room 171	582	0	70.8	36%
Room 171 B	514	0	70.5	35%
Room 172	574	0	70.4	35%
Room 174	521	0	70.2	34%
Room 172 G	483	0	70.3	37%
Room 172 F	518	0	70.5	36%
Room 172 E	524	0	70.3	35%
Room 172 D	501	0	70.1	34%
Room 172 C	484	0	70.5	33%
Room 172 B	534	0	70.6	35%
Room 172 A	543	0	70.4	33%
Room 175	582	0	70.3	35%
Room 176	617	0	70.4	36%
IAQ Readings	School Name:			
Room Description				
Room 176 Office	684	0	71.6	59%
Auditorium Lobby	729	0	71.4	58%
Auditorium 180	838	0	71.5	59%
Women's Restroom 280C	728	0	71.3	57%
Men's Restroom 280D	638	0	71.2	58%
Room 181 A	582	0	71.0	37%
Room 181 B	528	0	71.5	38%
Room 182	513	0	71.7	39%

Room 183 A	595	0	72.1	37%
Room 183 B	548	0	72.1	39%
Room 184	546	0	71.3	37%
Room 186	477	0	73.7	40%
Room 186 Storage	418	0	74.2	40%
Room 195	860	0	70.9	51%
Room 195 A	1051	0	70.5	52%
Room 196	923	0	70.1	52%
Room 197	909	0	68.6	53%
Room 197 A	920	0	69.3	53%
Room 090	1163	0	71.6	62%
Room 090 A	834	0	70.5	61%
Room 094	711	0	72.9	60%
Room 095	862	0	72.3	62%
Room 092	941	0	72.0	63%
Room 093	765	0	72.1	61%
Room 093 A	812	0	72.0	60%
IAQ Readings	School Name:			
Room Description				
Room 002	854	0	72.2	56%
Room 004	650	0	72.2	59%
Room 004A	642	0	72.3	59%
Room 005 A	678	0	71.7	49%
Room 005	731	0	70.9	50%
Room 005 B	805	0	74.0	51%
Room 005 C	1110	0	74.2	50%
Room 005 E	703	0	72.8	49%

Room 008	681	0	73.2	54%
Room 006	646	0	73.7	51%
Room 006 A	720	0	72.8	56%
Room 011	665	0	73.5	52%
Room 011 A	637	0	73.4	51%
Room 011 B	657	0	74.3	50%
Room 011 L	605	0	63.6	55%
Boiler Room 011 M	569	0	73.5	61%
Room 011 O	450	0	73.4	61%
Room 011 H	417	0	72.9	63%
Room 011 Q	538	0	73.0	59%
Room 011 R	606	0	72.5	54%
Room 010	631	0	72.7	52%
Room 010 A	678	0	71.4	53%
Room 010 B	664	0	72.8	53%
Room 010 D	716	0	72.4	50%
Room 016	678	0	70.8	50%
IAQ Readings	School Name:			
Room Description				
Room 017	673	0	71.0	49%
Room 055	603	0	71.0	59%
Room 019	739	0	71.6	47%
Room 020	698	0	71.5	48%
Room 021	750	0	71.3	46%
Room 054	565	0	71.2	59%
Room 054 B	479	0	71.3	60%
Room 054 A	522	0	70.8	61%

Room 056 B	538	0	70.5	62%
Room 056	524	0	70.4	63%
Room 056 A	491	0	70.4	61%
Room 058	456	0	70.4	62%
Room 058 B	473	0	70.5	62%
Room 058 A	461	0	70.6	61%
Room 057	438	0	70.5	64%
Room 057 B	488	0	70.0	63%
Room 57 A	468	0	70.0	64%
Room 057 C	459	0	70.0	60%
Room 053	501	0	70.8	64%
Room 053 B	486	0	70.2	64%
Womens RR 052	549	0	71.0	59%
Mens RR 050	584	0	70.5	58%
Room 051	537	0	70.6	55%
Room 047	685	0	70.6	55%
Womens RR 046	627	0	70.7	56%
IAQ Readings	School Name:			
Room Description				
Mens RR 045	592	0	71.8	59%
Staff Café 044	507	0	72.1	62%
Womens RR 044A		0		
Kitchen 060 (Construction)		0		
Room 070 H (Construction)		0		
Cafeteria (Construction)		0		
Room 070 G (Construction)		0		
Book Store 070 A (Construction)		0		

Room 080 (Construction)		0		
Room 080 D (Construction)		0		
Room 080E (Construction)		0		
Room 080 F (Construction)		0		
Boys Locker Room 040 (Construction)		0		
Boys Locker Room 041(Construction)		0		
Boys Locker Room 035 (Construction)		0		
Boys Locker Room 035 A (Construction)		0		
Boys Locker Room 033 (Construction)		0		
Room 037 (Construction)		0		
Room 038 (Construction)		0		
Room 038 A (Construction)		0		
Girls Locker Room 023 (Construction)		0		
Wrestling Room 024 (Construction)		0		
Office 024 A (Construction)		0		
		0		
IAQ Readings	School Name:	0		
Room Description				
Early Childhood Center				
D109A	822	0	70.7	54%
D109	772	0	70.6	54%
D109B	786	0	70.5	52%
D109C	721	0	70.4	52%
D107	862	0	71.0	53%
D106	721	0	70.8	54%
D106C	764	0	71.4	54%

D106B	749	0	71.2	54%
D106A	812	0	71.0	57%
D106D	866	0	71.8	59%
D108	761	0	70.4	54%
D110	721	0	70.6	54%
D110A	681	0	70.4	56%
D110B	678	0	70.4	56%
D100	771	0	70.1	52%
D102	735	0	66.4	52%
D104	904	0	69.4	51%
D104A	837	0	69.9	52%
D104B	834	0	69.9	52%
D104C	819	0	70.3	52%
D104E	829	0	70.0	54%
D104F	813	0	70.2	53%
M-D100	742	0	70.2	53%
IAQ Readings	School Name:			
Room Description				
D101	728	0	70.0	53%
D103	863	0	69.9	53%
D105	771	0	69.9	54%
D111	680	0	70.4	52%
D114	761	0	70.5	51%
E17A	722	0	70.8	52%
D125A	703	0	71.2	53%
D113	725	0	70.8	53%
D113F	682	0	70.6	55%

D113E	718	0	70.4	56%
D113D	693	0	70.0	59%
D113C	673	0	70.1	57%
D113B	774	0	70.3	49%
D115	659	0	70.2	47%
D117	601	0	70.2	46%
D121	917	0	72.0	66%
D116	721	0	71.4	52%
D118	760	0	71.6	52%
D119	743	0	71.5	49%
D120	682	0	71.3	47%
D122	708	0	71.3	48%
D123	630	0	71.0	51%
D124	642	0	71.3	50%
138A	716	0	71.2	51%
D136	586	0	71.0	51%
IAQ Readings	School Name:	0		
Room Description				
D136A	617	0	70.6	49%
D134	723	0	71.0	51%
130B	561	0	72.1	55%
D130A	534	0	72.1	54%
132	570	0	71.7	53%
D125	824	0	71.4	53%
D125H	731	0	71.5	52%
W125F	674	0	71.5	52%
D125D	627	0	71.2	54%

D125E	634	0	71.3	53%
D210	682	0	71.2	53%
M-D201	708	0	71.5	54%
D207	649	0	71.4	54%
D206	589	0	71.4	52%
D205	576	0	71.3	51%
D205A	581	0	71.2	51%
D204	574	0	71.3	51%
D203	574	0	71.4	52%
Mezzanine	528	0	71.3	53%
D202	561	0	71.4	53%
D202A	607	0	71.6	52%
D201	627	0	71.5	54%
2nd Floor D200	681	0	71.2	52%
Outdoor 5/2/2024	318	0	76.3	76%

APPENDIX C
Professional Credentials

Key Expertise

- Indoor Air Quality (IAQ) Assessments
- Air Monitoring
- Asbestos Building Inspections
- Asbestos Record Keeping
- Lead RRP Removal
- OSHA Safety
- Microscopic Reading
- Water Sampling

Summary of Experience

Harper Burkeen specializes in environmental sciences and industrial hygiene; he has been on multiple oversight jobs at large entities and the St. Louis School District. These oversights consist of asbestos and lead removal. Mr. Burkeen has also assisted in numerous asbestos building inspections, water sampling, and indoor air quality (IAQ) assessments.

Professional Affiliations/Memberships/Licenses/Training

Asbestos Air Sampling Technician
USEPA Lead Renovator, Repair and Painting Certification
Asbestos Contractor/Supervisor Training
State of Missouri Accredited Asbestos Worker
OSHA 10-Hour General Industry
Asbestos Building Inspector Training
NIOSH 582E Sampling and Evaluating Airborne Asbestos Dust

Role at J.S. Held

Harper Burkeen is involved in onsite project monitoring, air-sampling, lead removal projects, indoor air quality assessments, and asbestos building inspections. He provides efficient project record keeping and provides vital information on all EH&S projects such as lead abatement and asbestos abatement.

Education

BS, Environmental Studies, minor in Business Administration, McKendree University, 2023

Project Geographical Experience

U.S.

Languages

English

Contact

6 Meadow Heights Professional Park, Collinsville, IL 62234 | +1 618-357-4676 (O) | harper.burkeen@jsheld.com

Work Experience

J.S. Held, LLC
Industrial Technician/Environmental Technician/Safety Technician
2023 – Present

Environmental Consultants, LLC (acquired by J.S. Held, LLC)
Project Coordinator
2023 – 2023

ACS (Acoustical Ceiling Specialist)
Apprentice Carpenter
2021 – 2022

Major League Fishing
High School/College Assistant in Operations (Intern)
2018 – 2019

Select Project Experience

Hurricane Ian Relief and Recovery Efforts, Sanibel Island, Florida & Fort Meyers Beach, Florida. Environmental Inspector/Scientist, worked with the 2022 Disaster and Recovery teams in response to the damage caused by Hurricane Ian. Conducted hazardous building material inspections and assessments specifically to identify asbestos, lead-based paint, and other regulated hazardous materials. Additional duties included the conducting of moisture mapping assessments, mold testing, and other biological contaminants on Sanibel Island and Fort Meyers Beach. The scope of work included servicing over forty (40) large commercial properties encompassing greater than 1,000,000 SF of damaged properties.

Lewis and Clark School, Wood River, Illinois. Environmental Inspector/Health and Safety Officer, following a devastating fire that severely damaged the entire school, performed daily air monitoring and readings throughout the entire school, helped perform sampling for both microbial growth and fire, soot, and ash remnants/particulates. Supervised and monitored the nightly duct cleaning activities throughout the entire school, ensured workers safety during the cleaning and that the ducts were adequately clean once they were finished. Performed routine walks for fire watch because the school had no working fire alarm systems while work was being performed on the building.

Sunrise Apartment Renovations, Kansas City, Kansas. Environmental Project Manager, performed sampling for hazardous materials on a massive thirteen (13) story apartment complex. Sampling included daily monitoring and reading of asbestos samples, then as each floor was completed with asbestos abatement would then monitor and sample for microbial growth. This included the sampling of both sport traps and tape lifts, using both to check for maximum results. Other duties included reporting the additional amount of drywall that needed to be removed over the original scope of work, sampling for additional materials that may be considered hazardous, inspecting all containments build, and inspecting for more additional drywall that is contaminated with microbial growth and needed to be removed.

Adorers of the Blood of Christ Convent, Ruma, Illinois. Environmental Project Manager/Inspector and Health and Safety Officer, bulk sampling performed at the beginning of the project to test for any hazardous materials that may be inside of the building during the demolition process. The convent suffered major water damage after a water pipe in the ceiling ruptured due to extreme cold. While the demo process was ongoing inspections were performed for any additional areas that were infected with microbial growth that needed removal. Monitored worker safety and took daily temperatures and a questionnaire on the workers for the Covid-19 virus.

St. Louis Public Schools, St. Louis, Missouri. Environmental Project Manager/Inspector, sampling performed during this time to check for microbials and indoor air quality readings. Perform indoor air quality studies for the St. Louis Public School buildings throughout the district. HVAC samples and lead samples taken inside many of the schools for upcoming HVAC cleaning work. Assisted in taking air samples for lead cleaning/abatement.

Harper Burkeen

Industrial Technician/Environmental Technician/Safety Technician, EH&S



St. Clair County, Illinois. Environmental Project Manager, performed a variety of hazardous material sampling including asbestos and microbial growth. Performed indoor air quality with many of the different schools, making sure the HVAC systems were working properly to ensure the air quality of the students and faculty at the schools.

Hawthorne Apartment Renovations, Kansas City, Missouri. Environmental Project Manager, performed sampling for hazardous materials, including asbestos and microbial growth. Also monitored the building of containments and the work being performed for each unit being done. The containments we have built have been anything from an entire unit full size containment with a full ceiling removal to as small as glove bags inside of the bathrooms.

Key Expertise

- Indoor Air Quality (IAQ) Assessments
- Air Monitoring
- Asbestos Building Inspections
- Asbestos Air Sample Readings

Education

BS, Environmental Studies, McKendree University, 2023

Project Geographical Experience

U.S.

Languages

English

Summary of Experience

Devon Rathbun specializes in asbestos, lead, and mold related issues. Mr. Rathbun assists in the completion of numerous projects that include, inspections and oversight within the asbestos, lead-based paint, and indoor air quality projects.

Professional Affiliations/Memberships/Licenses/Training

Asbestos Air Sampling Technician
Asbestos Building Inspector
Asbestos Contractor/Supervisor Training
USEPA Lead Renovator
State of Missouri Accredited Asbestos Worker
OSHA 10 Hour General Industry
NIOSH 582 Certified

Role at J.S. Held

Devon Rathbun is involved in inspecting, project management, and onsite project monitoring. He has extensive involvement in numerous asbestos abatement assignments throughout the United States and has consulted on large asbestos removal and inspection projects.

Contact

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| devon.rathbun@jsheld.com

Devon Rathbun

Industrial Technician/Environmental Technician/Safety Technician, EH&S



Work Experience

J.S. Held, LLC

Industrial Technician/Environmental Technician/Safety Technician

2023 – Present

Environmental Consultants, LLC (acquired by J.S. Held, LLC)

Project Coordinator

2023 – 2023

Horizon West Guides and Outfitters, Sitka, AK

Deckhand

2019 – 2022