

IEA, INC.

2022 - 2023 IAQ Walkthrough



Contact Us:

BROOKLYN PARK OFFICE

9201 W. BROADWAY, #600
BROOKLYN PARK, MN 55445
763-315-7900

MANKATO OFFICE

610 N. RIVERFRONT DRIVE
MANKATO, MN 56001
507-345-8818

ROCHESTER OFFICE

210 WOOD LAKE DRIVE SE
ROCHESTER, MN 55904
507-281-6664

BRAINERD OFFICE

601 NW 5TH STREET SUITE #4
BRAINERD, MN 56401
218-454-0703

MARSHALL OFFICE

1420 EAST COLLEGE DRIVE
MARSHALL, MN 56258
507-476-3599

VIRGINIA OFFICE

5525 EMERALD AVENUE
MOUNTAIN IRON, MN 55768
218-410-9521

www.ieasafety.com

info@ieasafety.com

800-233-9513

Saint Paul Public Schools J.J. Hill Montessori

Walkthrough Date:
Friday, December 9, 2022

Project Description

IEA conducted an Indoor Air Quality (IAQ) walkthrough at J.J. Hill Montessori by IEA representative, Sashya Wandmaker. This walkthrough was conducted with the intent of gathering basic air quality and visual observations which will assist the District in making informed and proactive decisions to improve and maintain acceptable air quality in the building. This walkthrough is based upon the Environmental Protection Agency's (EPA's) Tools for Schools IAQ guidelines.

Some observations gathered during the walkthrough may identify issues which may require additional testing, evaluation or further investigation.

The findings, conclusions and recommendations presented herein are believed to be accurate and representative of the building on the date and time of the walkthrough.

GENERAL COMMENTS

The analysis and opinions expressed in this report are based upon data obtained from Saint Paul Public Schools at the indicated locations. This report does not reflect variations in conditions that may occur across the site, property, or facility. Actual conditions may vary and may not become evident without further assessment.

The report is prepared for the exclusive use of our client for specific application to the project discussed and has been prepared in accordance with generally accepted indoor air quality practices. Other than as provided in the preceding sentence, no warranties are extended or made.

Building Information

General information regarding the building was collected during the walkthrough. The information gathered during this process is a vital component, as it is helpful in determining how these items may play a role in possible IAQ related issues.

Below is a summary of the information gathered during the walkthrough:

- The building has two (2) floors.
- The building has not had recent construction.
- There are operable windows in the exterior rooms within the building.
- The building was originally constructed in 1974.
- The building does utilize walk-off mats.
- There are below grade floors.
- There are tunnels under portions of the building.

Observations Summary and Air Quality Measurements

Room / Location	Number of Occupants	Odor Present	Observations	Dust Accumulation	CO ₂ (ppm)	CO (ppm)	RH (%)	Temp (°F)
OUTDOORS					291	0.3	33.1	49.3
1401	19	No	• Aquariums (fish) • Plants	No	589	0.1	22.8	69.1
1402	18	No		No	622	0.1	23.5	69.4
1302	24	No		No	608	0.1	23.0	69.3
1303	1	No		No	608	0.1	23.3	69.1
1304	0	No		No	591	0.1	23.0	68.9
1403	21	No	• Plants	No	650	0.1	23.6	68.5
1404	20	No	• Plants	No	650	0.1	22.3	71.4
1405	22	No	• Plants	No	572	0.1	23.5	70.0
1409	27	No	• Live Animals • Plants	No	707	0.1	23.7	69.4
1407	2	No	• Housekeeping: Storage	No	564	0.1	22.4	69.3
1308	19	No		No	644	0.1	23.3	69.3
1307	0	No		No	568	0.1	22.7	68.7
1306	1	No		No	600	0.1	23.0	68.9
1305	4	No		No	625	0.1	23.1	69.4
1309	25	No	• Plants	No	666	0.1	24.0	69.3
2201	15	No	• Stained Ceiling Tiles • Plants	No	712	0.1	23.7	70.0

Room / Location	Number of Occupants	Odor Present	Observations	Dust Accumulation	CO ₂ (ppm)	CO (ppm)	RH (%)	Temp (°F)
2204	21	No	• Plants	No	747	0.1	23.8	70.0
2207	17	No	• Plants	No	699	0.1	23.4	69.6
2208	14	No		No	620	0.1	23.0	68.9
2200	4	No		No	679	0.1	23.8	69.3
2209	13	No	• Plants	No	685	0.1	24.1	69.4
2212	26	No	• Plants	No	595	0.1	23.5	69.3
2213	0	No		No	567	0.1	22.6	68.5
2215	19	No	• Plants	No	750	0.1	24.7	69.4
2203	0	No		No	573	0.1	22.6	68.7
130 COMMONS	19	No		No	660	0.1	23.5	68.9
GYMNASIUM	19	No		No	448	0.1	22.3	69.5
1108	0	No		No	460	0.1	23.6	69.1
CAFETERIA	60	No		No	565	0.1	22.4	69.3
KITCHEN	2	No		No	570	0.1	22.5	69.4
1009	1	No		No	522	0.1	22.2	68.9
1001	1	No		No	527	0.1	22.8	68.4
1004/1005	0	No		No	460	0.1	22.1	68.5
1014	2	No		No	483	0.1	22.8	68.0
1013	0	No		No	467	0.1	22.2	68.5
1012	2	No		No	504	0.1	23.3	68.9
1011	1	No		No	476	0.1	22.5	68.7
1105	0	No		No	607	0.1	24.1	68.7
1216	21	No	• Plants	No	779	0.1	24.9	70.0
1214	26	No	• Plants • Taxidermy	No	656	0.1	23.7	69.3
1213	0	No		No	543	0.1	22.6	69.3
1210	16	No	• Plants	No	726	0.1	24.3	69.6

Room / Location	Number of Occupants	Odor Present	Observations	Dust Accumulation	CO ₂ (ppm)	CO (ppm)	RH (%)	Temp (°F)
1209	4	No	Plants	No	567	0.1	23.0	69.3
1208	2	No	Plants	No	568	0.1	22.8	69.4
1201	25	No	- Live Animals - Plants - Taxidermy	No	650	0.1	24.0	69.4
1207	21	No	Plants	No	685	0.1	23.9	69.4
1204	27	No	- Stained Ceiling Tiles - Aquariums (fish) - Plants	No	785	0.1	24.9	69.8
1203	25	No	- Aquariums (fish) - Live Animals - Plants	No	691	0.1	24.6	69.4
1002/1003	4	No		No	495	0.1	23.3	69.2

Summary of Concerns & Recommendations

See below for IEA's list of concern areas and recommendations:

Indoor Air Quality Parameters/Guidelines

IEA recorded area(s) with humidity levels outside the ASHRAE recommended range of 30 - 60%. Relative humidity levels identified in area(s) listed below were found to be outside these guidelines. Low humidity levels tend to dry mucous membranes which may result in increased susceptibility to irritation. Elevated humidity levels can lead to condensation and provide conditions conducive to fungal growth. Low relative humidity is common in buildings during the heating season. An evaluation of the ventilation system controls, performance and operation is recommended.

- IEA identified forty-nine (49) rooms with relative humidity levels below 30%. However, this is common for non-humidified buildings during the heating season and is not considered an issue.

Stained Ceiling Tiles

Stained ceiling tiles were found in the room(s) shown below. The impacted ceiling tiles should be removed and replaced, and the cause of the moisture repaired.

- 1204
- 2201

Plants

Plants in an occupied location can be a source of allergens to sensitized individuals due to the pollen and soil mold. It is recommended that plants be removed from locations occupied by sensitized individuals. If plants are to remain in the area, IEA recommends that plants should not be placed near air unit ventilators or air supply diffusers. Additionally, plants should be watered from the bottom. These measures will help control pollen and mold spores from becoming airborne.

- 1201
- 1203
- 1204
- 1207
- 1208
- 1209
- 1210
- 1214
- 1216
- 1309
- 1401
- 1403
- 1404
- 1405
- 1409
- 2201
- 2204
- 2207
- 2209
- 2212
- 2215

Taxidermy

IEA observed area(s) with taxidermy mounts present. Individuals with allergies or asthma may be sensitive to dust, animal fur, or dander, and may have a reaction when exposed to these allergens. IEA recommends using an alternative to taxidermy mounts if allergen symptoms are found by occupants within the classroom.

- 1201
- 1214

Live Animals / Aquariums

IEA observed live animal(s). Prior to having animals, the Building Principal should be consulted. Consult parents about potential allergies in a take-home note with students or during parent-teacher conferences. IEA recommends that the animal and cages/cases are regularly cleaned/maintained and stored away from air supply and return vents.

- 1201
- 1203
- 1203
- 1204
- 1401
- 1409

Poor Housekeeping

Area(s) identified by IEA as having poor housekeeping (excessive clutter, excessive dust/debris on horizontal surfaces, etc.) were documented within the building. Poor housekeeping can limit building maintenance from conducting a proper cleaning of the area. This can result in elevated potential for allergen issues in sensitized individuals due to dirt and debris loading. Poor housekeeping can also allow for pest (insects and rodents) issues in the space.

- 1407 *Storage*