

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 Early Childhood Hub West

Walkthrough Date:
Friday, December 9, 2022

Project Description

IEA conducted an Indoor Air Quality (IAQ) walkthrough at Early Childhood Hub West 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 four (4) 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 1973.
- There are additions to the building, in the following year(s): 2005.
- 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	0.4	29.8	54.7
KITCHEN	1	No		No	440	0.1	21.7	69.1
1209C	0	No		No	376	0.1	20.8	69.3
1202	3	No		No	392	0.1	21.6	69.6
1162A	3	No		No	470	0.1	22.2	69.6
1202A	0	No		No	368	0.1	21.1	68.9
1202B	0	No		No	372	0.1	20.9	69.1
SOUTH 1208 GYMNASIUM	7	No		No	405	0.1	21.0	70.0
NORTH 1208 GYMNASIUM	18	No		Yes Air Supply	458	0.2	22.8	67.5
1208B	0	No		No	435	0.1	23.3	66.2
1207	1	No	<ul style="list-style-type: none"> Stained Ceiling Tiles 	No	386	0.1	21.4	69.1
1203A	0	No		No	361	0.1	21.4	68.2
1203	1	No		No	363	0.1	21.5	68.7
1201	16	No		No	524	0.1	22.1	70.5
1141	5	No		No	405	0.1	21.4	70.0
1142	14	No		No	399	0.1	21.4	68.7
2200	0	No	<ul style="list-style-type: none"> Moisture Impacted Materials: See Appendix A 	No	353	0.1	20.9	69.4
2254	0	No		No	341	0.1	20.5	69.9
2253	0	No	<ul style="list-style-type: none"> Plants 	No	339	0.1	20.4	70.0

Room / Location	Number of Occupants	Odor Present	Observations	Dust Accumulation	CO ₂ (ppm)	CO (ppm)	RH (%)	Temp (°F)
2253A	2	No		No	369	0.1	21.4	69.6
2253B	0	No		No	341	0.1	20.5	69.6
2253C	0	No		No	339	0.1	20.8	69.3
2252	0	No		No	346	0.1	20.6	69.8
2246	2	No	• Plants	No	370	0.1	20.8	70.0
2245	1	No	• Plants	No	367	0.1	21.1	69.4
2245C	0	No		No	365	0.1	21.1	69.3
2245B	0	No		No	390	0.1	21.8	68.9
2245A	2	No	• Plants	No	378	0.1	21.7	68.7
2244	8	No		No	577	0.1	23.8	69.3
0101	14	No		No	446	0.2	22.8	70.0
0102	14	No		No	435	0.1	21.4	70.5
0100	1	No		No	383	0.2	21.4	69.8
1001	1	No		No	373	0.1	20.9	70.3
1013	0	No		No	351	0.2	20.6	70.0
1014	0	No	• Stained Ceiling Tiles	No	370	0.1	20.3	70.7
1006	1	No		No	385	0.1	19.9	72.0
1009	0	No		No	369	0.1	9.9	72.9
1005	1	No		No	409	0.2	20.1	73.0
1003	0	No		No	384	0.2	21.3	72.9
1143	2	No		No	402	0.1	21.8	69.4
1144	2	No		No	420	0.1	21.7	69.8
1145	19	No	• Stained Ceiling Tiles	No	434	0.1	22.5	69.4
1145A	0	No		No	352	0.1	21.1	69.3
1146	2	No		No	408	0.1	22.3	69.3
1153	17	No		No	489	0.1	24.0	69.4

Room / Location	Number of Occupants	Odor Present	Observations	Dust Accumulation	CO ₂ (ppm)	CO (ppm)	RH (%)	Temp (°F)
1154	7	No	<ul style="list-style-type: none"> Plants 	No	382	0.1	21.5	69.9
1155	15	No	<ul style="list-style-type: none"> Bubbling/Peeling Paint: Peeling paint around the air return; See Appendix A 	No	405	0.2	21.9	70.7
1162	0	No		Yes Air Supply, Ceiling Tiles Around Air Supply	365	0.1	22.6	69.8

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-seven (47) 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.

IEA recorded area(s) with temperatures outside the recommended range. During the heating season, ASHRAE recommends that temperatures be between 68°F and 75°F. Evaluation of temperature controls and/or ventilation system performance and operation is recommended.

- 1208B
- NORTH 1208 GYMNASIUM

Moisture-Impacted Building Material Concerns

Moisture-impacted building materials should be repaired or replaced when discoloration or water staining is observed. Moisture-impacted building materials can be a source for microbial growth. The source for the moisture infiltration should be investigated and repaired if not easily identified.

- 2200

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.

- 1014
- 1145
- 1207

Bubbling/Peeling Paint Concerns

IEA observed bubbling/peeling paint in area(s) within the room(s) listed below.

Bubbling/peeling paint can be caused by moisture issues. IEA recommends investigating the cause and repairing the paint. IEA recommends ensuring that the paint is not lead-based prior to disturbance.

- 1155 *Peeling paint around
the air return*

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.

- 1154
- 2245
- 2245A
- 2246
- 2253

Dust Accumulation

IEA observed dust accumulation in the following room(s) and recommend that the specified area is wiped clean using a damp rag.

- 1162 *Air Supply, Ceiling
Tiles Around Air
Supply*
- NORTH 1208 *Air Supply*
GYMNASIUM

Appendix A

Photo Documentation



2200

Moisture Impacted Materials



1155

Bubbling/Peeling Paint