

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 Nokomis Montessori North

Walkthrough Date:
Tuesday, November 15, 2022

Project Description

IEA conducted an Indoor Air Quality (IAQ) walkthrough at Nokomis Montessori North by IEA representative, Eddie Anderson. 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 and inoperable windows in the exterior rooms within the building.
- The building was originally constructed in 1952.
- There are additions to the building, in the following year(s): 1956 and 1995.
- The building does utilize walk-off mats.
- There are no below grade floors.
- There are no 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					406	0.4	24.0	34.0
1001	2	No		No	510	0.1	26.4	70.5
1003	2	No		No	557	0.1	27.1	71.2
1004	1	No	<ul style="list-style-type: none"> Stained Ceiling Tiles 	Yes Horizontal Surfaces	613	0.1	26.6	71.4
1005	2	No	<ul style="list-style-type: none"> Aquariums (fish) Plants 	No	515	0.2	26.1	71.1
1007	1	No	<ul style="list-style-type: none"> Plants 	No	633	0.1	26.0	70.9
1008	1	No		Yes Horizontal Surfaces	500	0.1	25.4	70.3
1009	2	Yes Fragrance		No	915	0.2	28.2	70.3
1010	2	No	<ul style="list-style-type: none"> Plants 	No	1,106	0.2	29.7	71.1
1107	1	No		Yes Horizontal Surfaces	555	0.2	26.6	70.9
1109	1	No		No	482	0.3	25.3	71.1
1112	0	No		No	490	0.3	26.0	69.8
1113	0	No	<ul style="list-style-type: none"> Stained Ceiling Tiles 	No	529	0.3	26.7	69.8
1101	4	No	<ul style="list-style-type: none"> Condensation 	No	491	0.2	29.2	70.0
1114	0	No		Yes Air Supply	818	0.3	29.6	70.7
2203	16	No		No	2,175	0.4	36.6	70.9
2404	0	No	<ul style="list-style-type: none"> Plants 	No	838	0.3	28.9	69.6
1206	12	No		No	825	0.3	29.2	69.4
2205	0	No	<ul style="list-style-type: none"> Plants 	No	934	0.3	29.8	69.2
2206	16	No	<ul style="list-style-type: none"> Plants 	No	1,246	0.3	32.5	68.7

Room / Location	Number of Occupants	Odor Present	Observations	Dust Accumulation	CO ₂ (ppm)	CO (ppm)	RH (%)	Temp (°F)
2207	8	Yes Fragrance	• Plants	No	1,276	0.3	34.4	69.3
2208	0	Yes Fragrance	• Plants	No	910	0.3	30.4	69.4
1115	3	No		No	552	0.1	30.4	71.8
1203	25	No	• Stained Ceiling Tiles	No	1,540	0.3	30.4	70.9
1207	20	No	• Stained Ceiling Tiles • Plants	Yes Air Return	1,388	0.3	32.2	69.6
1205	15	No	• Stained Ceiling Tiles	No	1,558	0.3	31.3	70.5
1204	25	No		No	1,441	0.3	31.5	70.0
1301	2	No	• Plants	Yes Horizontal Surfaces	729	0.3	26.7	70.7
1303	2	No	• Plants	No	853	0.3	28.3	70.5
1305	20	No	• Plants	No	1,617	0.4	31.5	71.2
1307	25	Yes Food		No	1,550	0.4	32.0	71.2
1401	4	Yes Food		No	800	0.3	28.3	70.3
1402	12	No	• Plants	No	1,298	0.3	29.1	70.5
1403	16	Yes Food	• Condensation • Plants	No	915	0.3	26.0	70.5
1404	22	No	• Aquariums (fish) • Plants	No	1,472	0.4	31.8	70.7
1405	11	Yes Fragrance	• Plants	No	780	0.3	29.3	70.3
1407	16	Yes Fragrance	• Condensation	No	952	0.3	32.2	70.5

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 carbon dioxide measurements above 1,200 ppm in the room(s) listed below. IEA considers carbon dioxide measurements above 1,200 ppm as an indication of a possible ventilation issue. The ventilation system(s) serving the location(s) with these levels should be evaluated.

- 1203
- 1204
- 1205
- 1207
- 1305
- 1307
- 1402
- 1404
- 2203
- 2206
- 2207

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 twenty-three (23) 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.

Odors

Odors were detected during the site visit in the building. If the source of the odor cannot be easily identified, IEA can provide further investigation or recommendations.

- 1009 *Fragrance*
- 1307 *Food*
- 1401 *Food*
- 1403 *Food*
- 1405 *Fragrance*
- 1407 *Fragrance*
- 2207 *Fragrance*
- 2208 *Fragrance*

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.

- 1004
- 1113
- 1203
- 1205
- 1207

Condensation Concerns

IEA located area(s) where condensation was forming. Condensation on interior sources can increase the humidity in the area and may become a source of microbial growth. Temperature differentials that cause condensation on surfaces may suggest a ventilation concern and should be evaluated. Window condensation and frost can also contribute to condensation during extreme cold outdoor temperatures.

- 1101 • 1407
- 1403

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.

- 1005 • 1403
- 1007 • 1404
- 1010 • 1405
- 1207 • 2205
- 1301 • 2206
- 1303 • 2207
- 1305 • 2208
- 1402 • 2404

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.

- 1005 • 1404

Dust Accumulation

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

- 1004 *Horizontal Surfaces* • 1114 *Air Supply*
- 1008 *Horizontal Surfaces* • 1207 *Air Return*
- 1107 *Horizontal Surfaces* • 1301 *Horizontal Surfaces*