

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 Saint Anthony Park Elementary School

Walkthrough Date:
Tuesday, November 29, 2022
Retest Date: March 21, 2023

Project Description

IEA conducted an Indoor Air Quality (IAQ) walkthrough at Saint Anthony Park Elementary School by IEA representative, Nick Lundgren. 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 1953.
- There are additions to the building, in the following year(s): 1974.
- The building does utilize walk-off mats.
- There are no 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					400	0.3	92.0	26.0
CUSTODIAL OFFICE	2	No		No	607	0.2	25.2	70.0
1109	35	No		No	1,157	0.4	28.4	70.2
RETEST 1109 GYM	25	No		No	948	0.0	21.8	69.4
KITCHEN OFFICE	1	No		No	825	0.8	25.8	70.0
KITCHEN	2	No		No	1,330	0.6	27.2	71.4
RETEST KITCHEN	4	No		No	954	0.0	29.4	69.4
1001	1	No		No	694	0.4	25.5	70.9
1003	1	No		No	774	0.4	27.6	71.2
1006	0	No		No	679	0.4	24.9	71.4
1002	2	No	• Plants	No	749	0.4	25.2	72.5
1204	1	No		No	941	0.5	24.5	71.6
1402	0	No		No	735	0.5	26.9	71.8
1201	23	No	• Plants	No	875	0.4	27.8	70.7
1203	5	No		No	765	0.5	25.6	70.3
1205	25	No		No	966	0.4	26.9	70.3
1207	20	No		No	814	0.4	27.2	70.0
1216	3	No		No	965	0.4	29.4	72.5
1218	20	No		No	933	0.0	24.4	72.7
1220	20	No		No	727	0.5	25.8	71.2
1310	21	No		No	873	0.3	26.2	71.1
1308	25	No		No	1,075	0.3	25.1	71.2
1311	20	No	• Aquariums (fish) • Live Animals • Taxidermy	No	884	0.3	25.0	71.4

Room / Location	Number of Occupants	Odor Present	Observations	Dust Accumulation	CO ₂ (ppm)	CO (ppm)	RH (%)	Temp (°F)
1302	28	No		No	936	0.2	26.7	69.3
1413	21	No		No	832	0.2	24.9	70.5
MEDIA CENTER	21	No		No	721	0.3	24.4	70.2
1403	2	No		No	696	0.3	27.7	70.3
1407	1	No		No	585	0.3	23.4	70.5
1409	0	No		No	575	0.2	25.4	70.5
1405	0	No		No	534	0.3	22.3	70.2
1411	2	No		No	720	0.3	24.7	70.2
1401	2	No		No	586	0.2	23.6	69.8
1402	0	Yes Fragrance		No	670	0.3	24.6	69.6
1309	5	No		No	801	0.2	24.9	70.3
1304	23	No		No	704	0.2	22.6	71.2
1306	24	No	• Plants	No	1,333	0.3	25.4	69.3
RETEST 1306	25	No		No	1,118	0.0	22.4	69.5
1307	2	No		No	704	0.2	24.5	70.2
1305	18	No	• Plants	No	851	0.2	23.5	69.6
1303	2	No		No	736	0.3	24.7	70.0
CAFETERIA	65	No		No	1,100	0.3	28.0	70.7
RETEST CAFETERIA	50	No		No	1,155	0.0	31.0	66.2
2409	23	No		No	1,250	0.3	29.2	71.1
RETEST 2409	24	No		No	1,348	0.0	23.0	69.9
2412	20	No		No	1,035	0.3	28.1	71.1
2410	24	No		No	958	0.3	26.6	70.7
2408	28	No		No	1,126	0.3	27.0	70.7
RETEST 2408	3	No		No	910	0.0	20.7	70.4
2406	24	No		No	1,001	0.4	27.3	71.1
2404	0	No		No	736	0.2	24.8	71.1
2401	3	No		No	802	0.2	25.0	70.9
2212	0	No		No	740	0.3	25.3	70.5

Room / Location	Number of Occupants	Odor Present	Observations	Dust Accumulation	CO ₂ (ppm)	CO (ppm)	RH (%)	Temp (°F)
2211	1	No		No	970	0.4	29.5	70.7
2209	0	No		No	812	0.4	27.6	69.7
2405	26	No		No	944	0.2	26.3	70.0
2403	20	No		No	988	0.2	26.8	70.5
2201	2	No		No	800	1.9	29.4	69.8
2203	1	No		No	764	0.4	26.6	69.6
2205	25	No		No	1,450	0.4	33.1	69.6
RETEST 2205	32	No		No	1,097	0.0	25.9	70.5
2207	27	No		No	989	0.4	32.6	70.2
2202	5	No		No	1,021	0.5	30.9	70.2
1112	0	No		No	851	0.5	26.7	70.9
1005	1	No		No	1,045	0.3	26.9	72.7
OUTDOORS					385	0.4	92.0	26.0

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.

- 1306 • KITCHEN
- 2205 • RETEST 2409
- 2409

After IEA completed the initial IAQ walkthrough, the ventilation system(s) serving rooms with carbon dioxide measurements at or above 1,100 ppm were evaluated by SPPS. After ventilation adjustments or repairs were made, IEA returned to those rooms on March 21, 2023, to repeat the walkthrough. The “retest” data is included in this report for reference.

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 fifty-nine (59) 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.

- RETEST CAFETERIA

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.

- 1402 *Fragrance*

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.

- 1002 • 1305
- 1201 • 1306

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.

- 1311

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.

- 1311 • 1311