

IEA, INC.

# 2017 - 2018 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 5<sup>TH</sup> 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](http://www.ieasafety.com)

[info@ieasafety.com](mailto:info@ieasafety.com)

**800-233-9513**

## **Jordan Public Schools Middle School**

**Inspection Date  
03-14-2018**



## Observations and Air Quality Measurements

Observations and air sampling results are outlined in the following table:

Room / Location	Time	Number of Occupants	CO2 (ppm)	CO (ppm)	RH (%)	Temp. (F)	Comments/Observations
District Office	8:39 AM	3	615	1	24	68	Plants
Cerc Commons	8:45 AM	3	803	1	23	68	
Cerc fitness room	8:48 AM	3	736	2	22	69	
Cerc multi-purpose room	8:49 AM	7	790	2	22	69	
Instrumental Room	8:51 AM	3	679	2	20	70	
Media Center	8:54 AM	23	651	2	18	69	
202 Computer Lab	8:57 AM	23	1021	1	21	70	
200 Art	8:59 AM	19	758	2	19	70	
109	9:00 AM	0	528	2	16	70	
111	9:02 AM	16	874	1	19	71	
112	9:03 AM	25	956	1	19	71	
114	9:04 AM	26	1192	1	22	72	
115	9:06 AM	21	952	2	19	71	
118	9:07 AM	1	667	2	16	71	
119	9:08 AM	26	971	2	19	71	
121	9:10 AM	13	903	2	19	71	
120	9:11 AM	32	1242	1	21	71	
123	9:12 AM	16	858	1	18	72	
Main Office	9:14 AM	3	576	1	16	71	Plants
Nurse's Office	9:16 AM	1	572	1	16	71	
400	9:17 AM	1	600	1	17	71	
418	9:23 AM	3	674	1	16	71	
411	9:24 AM	30	972	1	20	72	
410	9:26 AM	23	1113	1	20	71	
408	9:27 AM	28	1363	1	23	72	
405	9:29 AM	6	1001	1	20	72	
403	9:31 AM	20	620	1	17	72	Blocked air diffuser.
404	9:33 AM	27	998	1	20	72	
Gymnasium	9:34 AM	22	671	2	18	71	
302	9:36 AM	31	994	1	21	71	
Kitchen	9:38 AM	3	641	2	16	70	
Commons	9:40 AM	36	631	1	17	69	
Choir Room	9:41 AM	1	602	1	18	70	
Outdoors	9:43 AM	0	377	5	33	37	

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## Summary of Concerns & Recommendations

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

### **Indoor Air Quality Parameters/Guidelines**

IEA recorded areas with humidity levels outside the ASHRAE recommended range of 30-60%. Relative humidity levels identified in areas 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. An evaluation of the ventilation system controls, performance and operation is recommended. Low relative humidity is common in buildings during the heating season.

All rooms

IEA recorded two areas with carbon dioxide measurements over 1,200 ppm in the building. IEA considers carbon dioxide measurements above 1,200 ppm as an indication of a possible ventilation issue. The air-handling system serving the location with these levels should be evaluated. Possible issues with air distribution and/or the control system may be the source for the carbon dioxide measurements.

120

408

During the heating season, ASHRAE recommends that temperatures be between 68° and 75°F. All areas tested were within the temperature range.

IEA considers carbon monoxide over 5 ppm to be a possible indication of ventilation and/or equipment issues. If elevated levels are found, the systems and equipment in locations with elevated carbon monoxide should be assessed. IEA did not record any areas with elevated carbon monoxide levels.

### **Odors**

Odors were not detected during the site visit in the building.

### **Water Stained Ceiling Concerns**

Water-impacted ceiling materials should be replaced when discoloration or water staining is observed. Water-impacted ceiling materials can be a source for microbial growth. The source for the moisture infiltration should be investigated and repaired.

No rooms

### **Visible Fungal Growth Concerns**

Building materials with visible fungal growth should be removed and/or cleaned under controlled conditions, per the New York City Guidelines (<https://www1.nyc.gov/assets/doh/downloads/pdf/epi/epi-mold-guidelines.pdf>) or following the Institute of Inspection, Cleaning and Restoration (IICRC) S520

*Standard and Guide for Professional Mold Remediation* to prevent possible contamination of adjacent locations and impact to building occupants.

No rooms

### **Efflorescence Concerns**

During the walkthrough, IEA did not identify areas with efflorescence.

### **Bubbling/Peeling Paint Concerns**

IEA did not observe bubbling/peeling paint in areas throughout the building.

### **Condensation Concerns**

IEA did not observe any areas where condensation was forming.

### **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, the following actions are recommended:

- Water plants from the bottom to aid in preventing fungal growth on the soil surface
- Do not locate plants on top of air unit ventilators, if present in a room, to prevent soil and leaves from falling into the units.
- Do not locate plants near air supply diffusers, this will limit air currents over the plants and may prevent pollen or mold spores from becoming airborne.

District Office

Main Office

### **Taxidermy**

IEA did not observe areas with taxidermy mounts present.

### **Live Animals**

During the walkthrough, IEA did not observe live animals.

### **Poor Airflow**

Poor airflow was not identified in areas of the building during the site visit.

**Poor Housekeeping**

Areas identified by IEA as having poor housekeeping (excessive clutter, excessive dust/debris on horizontal surfaces, etc.) were not observed within the building.

**Structural Failure**

IEA did not observe areas in which external and/or internal structural failure was present.

**Blocked Air Diffusors**

IEA observed blocked air diffusors in the following rooms and recommends that items are moved from the vicinity of the air supply diffuser and return grates. Blocked supply and return on the units can limit efficient air exchange within the occupied space.

403