

June 21, 2023

Mr. Nicholas Crupi, CEFM
Director, Buildings and Grounds
Scotch Plains - Fanwood Public Schools
512 Cedar Street
Scotch Plains, NJ 07076

Dear Mr. Crupi,

This report outlines findings from [ESMCorp's](#) June 15th, 2023's Indoor Air Quality monitoring at each of the 8 Scotch Plains-Fanwood Schools. This assessment was conducted as part of the Scotch Plains – Fanwood Schools routine preventative indoor air quality program to ensure acceptable air quality for students, staff, and visitors. The purposes of this inspection were the following:

- Determine if air quality parameters including fresh air supply, volatile organic compounds, carbon monoxide, temperature and humidity were within expected ranges.
- Determine if the school is in general compliance with current guidelines by the State of New Jersey and the CDC with respect to ventilation in classrooms for reducing COVID-19 transmission risk.

The inspections, data analysis and report were conducted Mr. Richard A. Lynch, MBA, CIH, CIEC and Dr. Richard M. Lynch, Ph.D., CIH of [Environmental Safety Management Corporation](#).

Executive Summary

The June 2023 routine Indoor Air Quality Assessment of the Scotch Plains – Fanwood schools revealed that fresh air supply was within normal ranges in 85% of the 227 rooms inspected in accordance with PEOSHA, CDC and NJ Department of Education guidelines for COVID-19 transmission risk reduction in each of the 8 schools inspected. There were no musty odors, no widespread visible water damage, and no visible mold contamination observed. There were no elevations in carbon monoxide. Temperature and relative humidity were with normal ranges given outdoor conditions at each of the schools. Classroom specific findings and recommendations are contained in the Tables at the end of this report.

I. Evaluation Criteria

According to the CDC “regardless of the level of community transmission, it is critical that schools use and layer prevention strategies, following district policies and procedures for COVID-19 transmission risk reduction. Recent NJDOH updates ([May 2023](#)) continue to recommend layered strategies for prevention of COVID-19 transmission in schools including increased ventilation.

Heating Ventilation, Air Conditioning Systems The NJDOH and CDC recommended that schools “Improve [ventilation](#) to the extent possible to increase circulation of outdoor air, increase the delivery of clean air, and dilute potential contaminants. This can be achieved through several actions.

- Bring in as much outdoor air as possible.
- Ensure Heating, Ventilation, and Air Conditioning (HVAC) settings are maximizing ventilation.
- Filter and/or clean the air in the school by improving the level of filtration as much as possible.
- Use exhaust fans in restrooms and kitchens.

For mechanically ventilated schools, The [NJ PEOSHA Indoor Air Quality Standard](#) requires that HVAC systems be inspected and maintained in accordance with manufacturer specifications and that damaged components be repaired. According to the standard, when indoor air levels of carbon dioxide exceed 1,000 parts per million the employer inspect the system to ensure that it is operating as it should NJAC 12:100-13.3. The standard also requires that when indoor air temperatures cannot be maintained between 68-79°F during the heating season, that the HVAC system be inspected. This is based upon the ASHRAE 55 standard which recommends that air temperatures be maintained between 68-72°F during the heating season, 74-78°F during the cooling season and 68-79°F during the transition seasons; all ideally at 30-60% relative humidity.

In non-mechanically ventilated buildings the PEOSHA standard requires that the employer “Assure that buildings without mechanical ventilation are maintained so that windows, doors, vents, stacks, and other portals designed or used for natural ventilation are in operable condition (NJAC 12: 100-13.3-6). In naturally ventilated classrooms (rooms with no mechanical ventilation systems such as unit ventilators, or rooftop air handlers), it is recommended that windows be opened to the maximum extent possible given temperature and security concerns. (Villers et al “[SARS-CoV-2 Aerosol Transmission in Schools: The Effectiveness of Different Interventions](#)”, and Lynch “[Review 2 SARS-CoV2 Aerosol Transmission in Schools: The effectiveness of Different Interventions](#)” Rapid Reviews COVID-19 MIT Press September 19, 2021.

II. Methods

Based upon the above, the following methods were observed:

1. A visual inspection of a representative sample of classrooms within each building was conducted for indications of air quality concerns including water damage, musty odors, air flow and general cleanliness.
2. Carbon Dioxide (CO₂) was measured as an indicator of fresh air supply in each of the representative areas evaluated at the center of the room, and where accessible, at the discharge of unit ventilators, using a TSI Q-Trak 7575 IAQ Monitor. Carbon monoxide, temperature and relative Humidity were also measured using this instrument.
3. Volatile Organic Compounds (VOC's), were also measured using a MiniRae photoionizer.

III. Findings and Results

General Observations

- Approximately 227 classrooms throughout the district were inspected and monitored during normal occupancy by students and staff.
- Classrooms were occupied by an average of 5 to 14 students at the time of assessment.
- Window position varied between classrooms and between buildings. On average 0 of 2-6 windows were open in each classroom at the time of inspection.
- There were no indications of unusual accumulations of dust or debris in any areas.
- There were no mold-like or musty odors present, and no evidence of unusual mold growth in the areas inspected.
- Unit ventilators in approximately 94% of classrooms throughout the district were operating at the time of inspection.

Air Monitoring Findings

- Outdoor air was measured to contain approximately 360 to 432 parts per million carbon dioxide with temperature at 67 to 77°F. Relative humidity ranged between 43 to 51% over the inspection period.
- The average carbon dioxide level in all classrooms monitored was 738 parts per million; lower than to the PEOSHA guideline of 1000 ppm and the ASHRAE guideline of 700 ppm above outdoor levels.
- There were no elevations in carbon monoxide or volatile organic compounds detected in any of the classrooms monitored.
- Temperature and relative humidity were within the PEOSH recommended range in most areas tested, averaging 73@ 53% RH, and considered normal.
- Fifteen percent (15%) of classrooms contained carbon dioxide levels exceeding 1,000 parts per million, suggesting a need to open windows whenever feasible, and to inspect unit ventilator fan speed and/or outdoor air damper position as described in the PEOSHA indoor air quality standard. In most cases, teachers had deactivated unit ventilators in these classrooms.

A summary of inspection findings and air quality results is displayed in Table #1 below.

Table #1 – Q4 Air Quality Summary June 2023 - Scotch Plains Fanwood Schools

	Total Rooms inspected	Average CO2 levels (center of room)	Average Temperature (°F)	Average Relative Humidity (%)	Average number of windows open	Average number of windows present	Average number of students present
Scotch Plains - Fanwood High School	48	544	73	67	0	4	1
Evergreen Elementary	22	795	73	52	0	4	11
Coles Elementary	24	769	73	54	1	4	7
Terrill Middle School	25	962	73	52	1	7	9
McGinn Elementary	24	736	74	50	0	3	14
Malcolm E. Nettingham Middle School	34	692	74	50	0	4	10
School One Elementary	25	659	71	48	0	2	13
Brunner Elementary	25	948	72	54	0	4	13
Total	227	-	-	-	-	-	-
Average	28	738	73	53	0	4	10

Detailed classroom findings and recommendations are contained on Table #2 at the end of this report.

IV. Conclusions and Recommendations

The June 2023 routine Q4 Indoor Air Quality Assessment of the Scotch Plains – Fanwood schools revealed that fresh air supply was within normal ranges in 85% of the 227 rooms inspected in accordance with PEOSHA, CDC and NJ Department of Education guidelines for COVID-19 transmission risk reduction in each of the 8 schools inspected. There were no musty odors, no widespread visible water damage, and no visible mold contamination observed. There were no elevations in carbon monoxide. Temperature and relative humidity were with normal ranges given outdoor conditions at each of the schools.

Recommendations

1. Unit ventilators in particular classrooms as shown in school-specific Table #2 at the end of this report should be inspected for airflow rates and/or fresh air damper position.

2. Teachers should be encouraged to keep unit ventilators operating and open as many windows as is feasible given outdoor temperature and humidity conditions, and operate supplemental air filters in classrooms, nurse offices and trailers where provided by the district.

Thank you for the opportunity to assist you with the evaluation. Please contact me with any questions at (856)764-3557.

Sincerely,

Richard A. Lynch

Richard A. Lynch, MBA, CIH, CIEC

Certified Industrial Hygienist

NJ Licensed Indoor Environmental Consultant

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Reviewed and Authorized:

Richard M. Lynch

Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM

NJ Licensed Indoor Environmental Consultant

President, ESMCorp

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School Name **Scotch Plains - Fanwood High School**
 Inspection Type **Mold/Air Quality Inspection**
 Date of inspection **6/15/2023**
 Inspected by **Mr. Richard A. Lynch, MBA, CIH, CIEC**
 Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**



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Table #1	General Observations								Average Room Measurements				Supply Measurements		
Location	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	360	0	77	45	0	-	
266	no	no	no	yes	1	26	2	8	371	0	75	51	0	363	
279	no	no	no	no	2	25	2	8	376	0	75	54	0		keep unit ventilators running
268	no	no	no	yes	1	25	2	8	387	0	75	50	0	367	
154	no	no	no	no	2	25	2	8	400	0	74	50	0	off	keep unit ventilators running
171	no	no	no	yew	0	23	0	8	419	0	72	55	0	389	
178	no	no	no	yes	1	26	1	8	444	0	72	56	0	401	
164	no	no	no	yes	1	21	0	11	447	0	74	52	0	414	
277	no	no	no	yes	0	24	0	4	447	0	75	404	0		
157	no	no	no	no	0	22	0	8	450	0	73	50	0	off	keep unit ventilators running
259	no	no	no	yes	3	28	0	8	450	0	75	49	0	390	
271	no	no	no	yea	1	25	0	11	467	0	74	51	0	446	check damper position
173	no	no	no	yes	0	30	0	4	470	0	72	54	0	435	
278	no	no	no	yes	2	24	0	4	481	0	75	440	0		
165	no	no	no	yes	0	24	0	11	482	0	74	51	0	417	
202	no	no	no	yes	1	24	0	2	507	0	73	50	0	roof	
204	no	no	no	yes	1	22	0	0	515	0	73	50	0	roof	
101	no	no	no	yea	0	24	0	0	516	0	75	44	0	roof	
207	no	no	no	yes	1	22	0	0	525	0	73	47	0	roof	
150	no	no	no	yea	0	24	0	8	530	0	74	50	0	450	
274	no	no	no	yes	0	24	0	8	530	0	74	59	0		check for moisture or water from recent rain
247	no	no	no	yes	0	24	0	0	531	0	72	53	0	roof	
214	no	no	no	yes	0	24	0	2	536	0	72	48	0	roof	
231	no	no	no	yes	1	25	0	2	545	0	72	52	0	roof	
233	no	no	no	yes	0	25	0	0	546	0	72	52	0	roof	
246	no	no	no	yes	3	25	0	0	548	0	72	53	0	roof	
242	no	no	no	yes	0	24	0	0	553	0	72	56	0	roof	
223	no	no		yes	3	25	0	0	555	0	72	53	0	roof	
222	no	no	no	yes	1	20	0	2	558	0	72	52	0	roof	
212	no	no	no	yea	0	20	0	2	570	0	73	52	0	roof	
238	no	no	no	yes	1	24	0	0	570	0	72	55	0	roof	
236	no	no	no	yes	1	10	0	0	576	0	72	52	0	roof	
158	no	no	no	no	0	16	0	8	580	0	74	50	0	off	keep unit ventilators running
282	no	no	no	yes	1	25	0	8	580	0	73	52	0	500	
media center	no	no	no	yes	4	100	0	0	580	0	74	47	0	roof	
232	no	no	no	yes	2	24	0	0	585	0	72	53	0	roof	
210	no	no	no	yes	1	24	0	2	586	0	73	53	0	roof	
102	no	no	no	yes	8	14	0	0	589	0	75	47	0	roof	
128	no	no	no	yes	0	24	0	0	616	0	73	53	0	roof	
131	no	no	no	yes	0	24	0	0	625	0	73	52	0	roof	
129	no	no	no	yes	1	24	0	0	627	0	73	53	0	roof	
122	no	no	no	yes	0	24	0	0	632	0	73	52	0	roof	
nurse	no	no	no	no	0	5	0	2	637	0	74	50	0	off	keep unit ventilators running
135	no	no	no	yes	2	24	0	0	733	0	72	51	0	roof	
141	no	no	no	yes	3	24	0	1	742	0	73	54	0	roof	
111	no	no	no	yes	1	24	0	0	750	0	73	51	0	roof	

School Name **Scotch Plains - Fanwood High School**
 Inspection Type **Mold/Air Quality Inspection**
 Date of inspection **6/15/2023**
 Inspected by **Mr. Richard A. Lynch, MBA, CIH, CIEC**
 Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**



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Table #1		General Observations							Average Room Measurements				Supply Measurements		
Location	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
139	no	no	no	yes	0	24	0	2	772	0	72	51	0	roof	
137	no	no	no	yes	6	20	0	2	795	0	74	50	0	roof	
Average					1	25	0	3	547	0	73	67	0	416	

Conclusions & Recommendations	Standardized testing occurring. monitoring initiated immediately following dismissal at 12:30. Fresh air supply adequate where unit ventilators running. Encourage teachers to keep unit ventilators running to introduce outdoor air during occupancy.
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School Name **Evergreen Elementary**
 Inspection Type **Mold/Air Quality Inspection**
 Date of inspection **6/15/2023**
 Inspected by **Mr. Richard A. Lynch, MBA, CIH, CIEC**
 Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**



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Table #2		General Observations							Average Room Measurements				Supply Measurements		
Location	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	361	0.7	73	47	0	-	
141	no	no	no	yes	2	12	1	6	452	0.2	74	55	0	400	
143	no	no	no	yes	0	4	0	4	499	0.5	74	48	0	roof	
media center	no	no	no	yes	1	50	0	8	529	0.2	74	48	0	468	
130	no	no	no	yes	16	23	3	4	550	0	73	53	0	459	
142	no	no	no	yes	2	4	0	2	575	0.3	74	48	0	roof	
110	no	no	no	yes	1	18	0	4	590	0	75	49	0	462	
128	no	no	no	yes	0	24	0	6	603	0	74	53	0	377	
108	no	no	no	yes	0	16	0	4	663	0	73	55	0	505	
129	no	no	no	yes	21	24	0	6	672	0	73	52	0	639	
nurse	no	no	no	yes	3	4	0	2	690	0.1	73	52	0	690	check damper position
114	no	no	no	yes	16	24	0	2	692	0	73	52	0	toof	
131	no	no	no	yes	20	26	0	4	755	0	74	51	0	615	
106	no	no	no	yes	20	25	0	4	808	0	73	55	0	547	
112	no	no	no	yes	10	16	0	2	874	0	73	53	0	roof	
117	1 ceiling tile	no	no	yes	20	25	0	2	874	0	73	56	0	roof	replace water damaged ceiling tile
104	no	no	no	yes	20	24	0	4	881	0	72	55	0	608	
119	no	no	no	yes	20	25	1	4	933	0	73	46	0	546	
120	no	no	no	yes	0	25	0	5	936	0	73	55	0	600	
123	no	no	no	yes	16	20	0	4	1003	0	74	52	0	918	open windows
134	no	no	no	yes	20	25	1	4	1106	0	74	52	0	1108	check damper position
127	no	no	no	yes	22	26	0	4	1160	0	74	55	0	809	open windows
135	no	no	no	no	18	24	0	4	1650	0	72	48	0	off	keep unit ventilator running
Average					11	21	0	4	795	0	73	52	0	609	

Conclusions & Recommendations	Fresh air supply and social distancing meets PEOSHA/CDC guidelines. No elevated VOCs or carbon monoxide. Temp and humidity within normal ranges. Encourage teachers to keep unit ventilators running.
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School Name **Terrill Middle School**
 Inspection Type **Mold/Air Quality Inspection**
 Date of inspection **6/15/2023**
 Inspected by **Mr. Richard A. Lynch, MBA, CIH, CIEC**
 Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**



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Table #4		General Observations							Average Room Measurements				Supply Measurements		
Location	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	381	0	73	51			
7	no	no	no	yes	12	24	4	10	566	0	74	53	0	509	
8	no	no	no	yes	15	24	7	12	566	0	75	53	0	495	
14	no	no	no	yes	1	24	3	7	608	0	76	52	0	515	
15	no	no	no	yes	8	24	3	8	647	0	75	51		506	
6	no	no	no	yes	0	24	0	7	687	0	75	53	0	599	
12	no	no	no	yes	20	24	0	7	756	0	75	54	0	643	
22	no	no	no	yes	0	24	0	4	787	0	71	47		533	
3	no	no	no	yes	6	24	0	7	830	0	74	55	0	685	
34	no	no	no	yes	0	26	0	4	864	0	69	49	0	670	
24	no	no	no	yes	1	26	0	6	887	0	70	49	0	737	
32	no	no	no	yes	1	26	0	7	901	0	70	49	0	753	
18	no	no	no	yes	0	20	0	4	938	0	72	50		691	
13	no	no	no	yes	21	26	0	8	960	0	76	54	0	805	
29	no	no	no	yes	0	26	0	8	966	0	70	51	0	816	
5	no	no	no	yes	19	25	3	7	1005	0	75	56	0	693	
2	no	no	no	yes	18	24	0	7	1007	0	75	57	0	803	
25	no	no	no	yes	23	25	0	7	1039	0	71	58	0	920	
39	no	no	no	yes	0	27	0	4	1105	0	72	50	0	995	
19	no	no	no	no	14	24	0	4	1110	0	75	47			
1	no	no	no	yes	20	24	0	7	1209	0	73	54	0	942	open windows
35	no	no	no	yes	0	26	0	4	1234	0	72	47	0	1005	open windows
38	no	no	no	yes	0	25	0	4	1245	0	73	50	0	1069	check damper position, open windows
28	no	no	no	yes	24	25	0	7	1279	0	70	52	0	923	
33	no	no	no	yes	22	24	0	9	1295	0	72	56	0	1185	check damper position, open windows
21	no	no	no	yes	0	24	0	4	1575	0	74	49		1555	check damper position
Average					9	25	1	7	937	0	73	52	0	794	

Conclusions & Recommendations	Fresh air supply and social distancing meets PEOSH/CDC guidelines. No elevated VOCs or carbon monoxide. Temp and humidity within normal ranges.
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School Name **McGinn Elementary**
 Inspection Type **Mold/Air Quality Inspection**
 Date of inspection **6/15/2023**
 Inspected by **Mr. Richard A. Lynch, MBA, CIH, CIEC**
 Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**



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Table #5		General Observations							Average Room Measurements				Supply Measurements		
Location	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	426	0	68	46	0	-	
106	no	no	no	yes	1	15	0	3	450	0	74	49	0	roof	
129	no	no	no	yes	12	24	0	4	541	0	75	51	0	445	
120	no	no	no	no	1	25	0	4	572	0	75	51	0	481	
130	no	no	no	no	18	25	1	2	588	0	76	49	0	485	
135	no	no	no	yes	22	24	0	4	620	0	77	50	0	537	
108	no	no	no	yes	21	25	0	4	635	0	75	50	0	roof	
116	no	no	no	yes	8	25	0	4	635	0	73	54	0	520	
117	no	no	no	yes	0	25	2	3	637	0	72	51	0	485	
133	no	no	no	yes	20	24	2	4	642	0	76	50	0	503	
107	no	no	no	yes	19	25	0	3	646	0	73	45	0	roof	
119	no	no	no	yes	0	25	0	4	656	0	75	51	0	505	
131	no	no	no	yes	18	25	1	4	657	0	76	49	0	520	
103	no	no	no	yes	20	26	0	3	726	0	75	50	0	604	
145	no	no	no	yes	0	4	1	2	730	0	75	47	0	roof	
122	no	no	no	yes	1	25	0	4	734	0	75	52	0	654	
104	no	no	no	yes	21	26	0	3	747	0	73	40	0	747	
media center	no	no	no	yes	28	50	0	2	833	0	72	44	0	roof	
118	no	no	no	yes	21	24	2	4	905	0	75	54	0	770	
134	no	no	no	yes	21	24	0	4	906	0	77	52	0	695	
124	no	no	no	yes	0	25	0	4	920	0	76	52	0	788	
151	no	no	no	yes	18	25	0	3	945	0	72	51	0	roof	
149	no	no	no	yes	19	25	0	2	958	0	72	48	0	roof	
121	no	no	no	yes	19	25	0	4	988	0	75	53	0	682	
150	no	no	no	yes	24	25	0	2	992	0	72	48	0	roof	
Average					14	24	0	3	736	0	74	50	0	589	

Conclusions & Recommendations	Fresh air supply and social distancing meets PEOSH/CDC guidelines. No elevated VOCs or carbon monoxide. Temp and humidity within normal ranges.
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School Name **Coles Elementary**
 Inspection Type **Mold/Air Quality Inspection**
 Date of inspection **6/15/2023**
 Inspected by **Mr. Richard A. Lynch, MBA, CIH, CIEC**
 Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**



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Table #3	General Observations								Average Room Measurements				Supply Measurements		
Location	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	375	0	74	51	0		
129	no	no	no	yes	0	21	0	4	470	0	70	53	0	roof	
media center	no	no	no	yes	0	50	0	4	486	0	70	52	0	roof	
133	no	no	no	yes	0	12	0	2	489	0	70	52	0	roof	
131	no	no	no	yes	1	10	0	2	520	0	71	54	0	roof	
130	no	no	no	yes	1	10	0	2	540	0	70	55	0	roof	
136	no	no	no	yes	1	24	0	8	559	0	73	58	0	450	
115	no	no	no	yes	0	24	3	4	576	0	74	54	0	433	
144	no	no	no	yes	18	21	2	4	678	0	74	54	0	511	
137	no	no	no	yes	1	24	0	4	683	0	72	57	0	610	
145	no	no	no	no	11	20	2	4	705	0	73	48	0		
134	no	no	no	yes	0	24	0	4	715	0	72	63	0	657	
110	no	no	no	yes	20	24	0	4	723	0	74	52	0	592	
140	no	no	no	yea	19	24	0	4	771	0	74	56	0	535	
116	no	no	no	yes	0	24	3	4	780	0	74	53	0	546	
119	no	no	no	yes	0	20	0	8	785	0	73	55	0	674	
107	no	no	no	yes	1	24	0	3	821	0	75	50	0	525	
139	no	no	no	yes	18	24	0	4	861	0	73	58	0	579	
142	no	no	no	no	20	21	3	8	866	0	74	55	0		
148	no	no	no	yes	20	25	0	4	880	0	73	59	0	868	
nurse	no	no	no	yes	2	4	0	1	882	0	75	47	0	814	
113	no	no	no	yes	0	20	0	4	1026	0	74	56	0	917	check damper position
118	no	no	no	yes	0	24	0	4	1038	0	74	58	0	965	check damper position
149	no	no	no	yes	22	25	0	4	1250	0	73	58	0	1220	check damper position
146	no	no	no	no	16	24	0	4	1359	0	73	48	0		check damper position
				Average	7	22	1	4	769	0	73	55	0	681	

Conclusions & Recommendations	Fresh air supply and social distancing meets PEOSH/CDC guidelines. No elevated VOCs or carbon monoxide. Temp and humidity within normal ranges.
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School Name **Malcolm E. Nettingham Middle School**
 Inspection Type **Mold/Air Quality Inspection**
 Date of inspection **6/15/2023**
 Inspected by **Mr. Richard A. Lynch, MBA, CIH, CIEC**
 Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**



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Table #6		General Observations							Average Room Measurements				Supply Measurements		
Location	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	400	0	68	46	0	-	
119e	no	no	no	yes	0	25	0	1	369	0	73	51	0	roof	
119d	no	no	no	yes	0	25	0	0	390	0	72	49	0	roof	
119b	no	no	no	yes	0	25	0	0	398	0	73	48	0	roof	
media center	no	no	no	yes	3	50	0	0	414	0	73	50	0	roof	
117	no	no	no	yes	0	24	0	4	425	0	73	50	0	397	
116	no	no	no	yes	0	26	0	5	436	0	74	52	0	393	
220	no	no	no	yes	2	20	0	7	495	0	73	51	0	425	
203	no	no	no	yes	0	26	0	5	496	0	73	50	0	404	
216	no	no	no	yes	1	24	0	6	543	0	74	52	0	428	
211	no	no	no	yes	0	24	0	6	546	0	74	53	0	438	
113	no	no	no	yes	0	24	0	5	552	0	74	46	0	480	
101	no	no	no	yes	0	50	0	0	556	0	73	48	0	roof	
206	no	no	no	yes	0	22	0	4	583	0	73	52	0	430	
303	no	no	no	yes	15	24	3	5	590	0	74	47	0	410	
219	no	no	no	yes	1	24	0	6	597	0	74	43	0	477	
120	no	no	no	yes	8	12	0	1	598	0	73	48	0	roof	
nurse	no	no	no	yes	2	4	0	0	601	0	74	50	0	roof	continue use of portable air scrubber
102	no	no	no	yes	20	40	0	8	609	0	74	49	0	453	
301	no	no	no	yes	12	16	0	6	633	0	73	49	0	488	
106	no	no	no	yes	17	22	0	3	649	0	75	47	0	533	
201	no	no	no	yes	20	24	0	8	669	0	74	51	0	525	
107	no	no	no	yes	22	22	0	3	725	0	75	51	0	525	
210	no	no	no	yes	15	24	0	4	728	0	74	53	0	493	
103	no	no	no	yes	24	24	0	4	763	0	75	53	0	592	
215	no	no	no	yes	2	4	0	2	764	0	74	49	0	488	
207	no	no	no	yes	20	24	0	4	769	0	73	51	0	546	
319	no	no	no	yes	24	24	0	6	903	0	74	48	0	589	
110	no	no	no	yes	20	28	0	4	905	0	75	55	0	555	
316	no	no	no	yes	20	24	0	6	946	0	74	49	0	511	
313	no	no	no	yes	20	20	0	4	1018	0	74	49	0	797	
307	no	no	no	yes	22	24	0	4	1030	0	74	47	0	739	
318	no	no	no	yes	22	24	0	6	1239	0	75	49	0	828	check fan speed. open windows
308	no	no	no	yes	20	24	0	4	1242	0	74	45	0	1048	check damper position
309	no	no	no	yes	20	24	0	4	1358	0	76	51	0	890	open windows
Average					10	24	0	4	692	0	74	50	0	551	

Conclusions & Recommendations	Fresh air supply and social distancing meets PEOSH/CDC guidelines. No elevated VOCs or carbon monoxide. Temp and humidity within normal ranges.
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School Name **School One Elementary**
 Inspection Type **Mold/Air Quality Inspection**
 Date of inspection **6/15/2023**
 Inspected by **Mr. Richard A. Lynch, MBA, CIH, CIEC**
 Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**



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Table #7		General Observations							Average Room Measurements				Supply Measurements		
Location	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	432	0	67	43	0	-	
203	no	no	no	yes	1	24	0	2	487	0	71	52	0	roof	
131 T	no	no	no	yes	4	24	0	4	505	0	71	55	0	455	
107	no	no	no	yes	0	6	0	1	534	0	70	44	0	roof	
102	no	no	no	yes	0	13	0	2	542	0	73	41	0	roof	
104	no	no	no	yes	20	24	0	2	578	0	71	44	0	roof	
103	no	no	no	yes	20	24	0	2	579	0	71	42	0	roof	
202	no	no	no	yes	3	10	0	2	589	0	71	52	0	roof	
210	no	no	no	yes	1	24	0	2	595	0	73	53	0	roof	
106	no	no	no	yes	0	24	0	2	601	0	70	46	0	roof	
213	no	no	no	yes	0	24	0	2	613	0	71	45	0	roof	
101	no	no	no	yes	19	24	0	2	625	0	75	38	0	roof	
113	no	no	no	yes	1	4	0	0	630	0	71	51	0	roof	
109	no	no	no	yes	19	24	0	2	632	0	70	45	0	roof	
105	no	no	no	yes	21	24	0	2	645	0	71	48	0	roof	
130T	no	no	no	yes	20	24	0	4	649	0	71	54	0	594	
112	no	no	no	yes	21	26	0	3	675	0	69	46	0	roof	
211	no	no	no	yes	20	21	0	2	685	0	71	44	0	roof	
111	no	no	no	yes	16	24	0	3	702	0	70	45	0	roof	
201	no	no	no	yes	20	24	0	2	712	0	72	53	0	roof	
209	no	no	no	yes	20	25	0	2	727	0	73	54	0	roof	
110	no	no	no	yes	20	23	0	2	739	0	71	48	0	roof	
205	no	no	no	yes	21	24	0	2	785	0	72	48	0	roof	
204	no	no	no	yes	24	24	0	2	822	0	72	49	0	roof	
206	no	no	no	yes	24	24	0	2	878	0	72	49	0	roof	
208	no	no	no	yes	19	24	0	3	943	0	73	57	0	roof	
Average					13	21	0	2	659	0	71	48	0	525	

Conclusions & Recommendations	Fresh air supply and social distancing meets PEOSH/CDC guidelines. No elevated VOCs or carbon monoxide. Temp and humidity within normal ranges.
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School Name **Brunner Elementary**
 Inspection Type **Mold/Air Quality Inspection**
 Date of inspection **6/15/2023**
 Inspected by **Mr. Richard A. Lynch, MBA, CIH, CIEC**
 Reviewed and Finalized by **Dr. Richard M. Lynch, Ph.D., CIH, CMC, CMRS, CHFM - President**



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Table #8		General Observations							Average Room Measurements				Supply Measurements		
Location	visible mold	Musty Odors?	Visible Water Damage?	HVAC running	Actual students	Potential Students	Windows Open?	total windows present	Carbon Dioxide (ppm)	Carbon Monoxide (ppm)	°F	Relative Humidity %	VOC	CO2 @ Supply	notes
outside	-	-	-	-	-	-	-	-	421	0	73	50	0		
105	no	no	no	yes	20	24	0	3	1026	0	72	49	0	732	
107	no	no	no	yes	22	24	0	6	925	0	75	50	0	706	
111	no	no	no	yes	24	24	0	4	1102	0	74	57	0	674	
113	no	no	no	yes	24	25	0	4	556	0	72	54	0	420	
118	no	no	no	yes	0	24	0	4	471	0	71	53	0	431	
119	no	no	no	yes	0	24	0	4	428	0	72	53	0	413	
121	no	no	no	yes	22	24	1	7	1178	0	73	58	0	571	
122	no	no	no	yes	0	4	0	0	818	0	72	52	0	roog	
123	no	no	no	yes	2	4	1	2	540	0	72	53	0	roof	
124	no	no	no	yes	10	12	1	4	657	0	71	56	0	roof	
125	no	no	no	yes	10	12	0	2	709	0	72	54	0	roof	
126	no	no	no	yes	12	24	0	2	682	0	71	56	0	roof	
127	no	no	no	yes	14	16	0	3	725	0	71	56	0	roof	
128	no	no	no	yes	7	16	0	2	834	0	71	56	0	roof	
129	no	no	no	yes	1	6	0	2	588	0	71	54	0	roof	
201	no	no	no	yes	0	20	0	4	534	0	71	54	0	465	
203	no	no	no	yes	24	24	0	4	1532	0	72	52	0	1172	
205	no	no	no	yes	24	24	0	4	1689	0	71	49	0	1338	
206	no	no	no	yes	23	24	0	4	1476	0	72	45	0	895	
207	no	no	no	yes	23	24	0	4	1764	0	72	54	0	1167	
208	no	no	no	yes	20	22	0	4	1405	0	72	60	0	687	
210	no	no	no	yes	19	22	0	4	1352	0	71	54	0	998	
211	no	no	no	yes	18	20	0	4	1525	0	70	57	0	1435	
media center	no	no	no	yes	0	50	0	4	540	0	72	52	0	roof	
nurse	no	no	no	no	1	4	0	4	654	0	72	51	0	475	
Average					13	20	0	4	948	0	72	54	0	786	

Conclusions & Recommendations	Fresh air supply and social distancing meets PEOSH/CDC guidelines. No elevated VOCs or carbon monoxide. Temp and humidity within normal ranges.
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