

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

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May 12, 2017

Signature on File

TO: Dr. Tracy Jackson, Principal
Collins Elementary

FROM: Alison Witoshynsky, Project Manager
Environmental Health & Safety Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

For Custodial Supervisor Use Only

Custodial Issues Addressed

Custodial Issues Not Addressed

On May 11, 2017, I conducted an assessment at **Collins Elementary School**. Attached are findings and recommendations for further assessment, remediation, or corrective actions needed.

The IAQ assessment did identify one or more existing conditions impacting IAQ and has generated appropriate work orders to correct deficiencies in systems and maintenance that could contribute to decreased indoor air quality. At the time of the assessment, these concerns were not an immediate health or safety concern to building occupants. However, due to individual sensitivities and predisposing health factors, it is possible that some building occupants may elicit a health response to agents and / or conditions identified during the evaluation. Therefore, to further improve IAQ, prevent development of future IAQ-related problems, and to reduce the potential for IAQ-related complaints by building occupants, the IAQ Assessment Team recommends appropriate follow up of each item identified and listed in the attached evaluation.

Please ensure that your Head Facilities Serviceperson receives a copy of this correspondence so that the recommendations requiring their attention can be addressed. In an attempt to separate IAQ issues from general maintenance items, the attached assessment may contain direction for site based staff to generate a work order through COMPASS. Within two weeks a representative from the Custodial/Grounds Department will conduct a follow-up visit to ensure that all site based custodial issues have been appropriately addressed.

Should any questions arise, or if the current concerns continue after the attached recommendations have been addressed, please feel free to contact us at 754-321-4200.

AW:smn

Enc.

cc: Shelley Meloni, Director, Pre-Construction
Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division
Broward Teachers Union
Federation of Public Employees
Gerald Devio, Supervisor II Custodial
Benjamin Osborne, Supervisor II Custodial
Mark Murray, Supervisor II Custodial
Sam Bays, Director, Maintenance Operations
Kurt Wirz, Area Manager Trades

IAQ Assessment

Collins Elementary

Evaluation Date May 11, 2017

Time of Day 12:15

Outdoor Conditions Temperature 83.1 Relative Humidity 69.4 Ambient CO2 451

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants	
505	76.4	72 - 78	66.5	30% - 60%	1949	MAX 700 > Ambient	0	
Noticeable Odor		Yes	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	Tectum		No		No			
Walls	Plaster/Tack Board		No		No			
Floor	12" x 12" Vinyl		Yes		No		from refrigerator	
Ceiling Clean		Yes	HVAC Supply Grills Clean		No	HVAC Return Grills Clean		No
Walls Clean		Yes	Inside of Supply Duct Clean		No	Inside of Return Duct Clean		N/A
Flooring Clean		No	Ceiling at Supply Grills Clean		N/a			
Room Surfaces Clean		No						
Trash Removed		No	Exhaust Fans Working		Yes	Unapproved Chemicals / Cleaners in Room		No
Signs of Pests		No	Drain Traps Wet		Yes	Air Fresheners in Room		No
Room Cluttered		Yes	Food if Stored in Room is in Sealed Containers		N/A			
Mechanical Equipment Location			Floor unit in classroom			Mechanical Room Clean		N/A
Filters Installed Properly		Yes	Filters Clean		No	Inside of HVAC Unit Clean		No
Condensate Pan Clean		N/A	Cooling Coil Clean		Yes			
Fresh Air Intake Location			Ducted Pre-treatment system ▼			Fresh Air Intake Free of Obstruction		Yes
Pollutant Sources Near Air Intake			No ▼					

Observations

Classroom is very cluttered, cardboard boxes. Two (2) area rugs in room, dirty, stained, dirt underneath. Blinds clean, but window sill has debris and dust on horizontal and elevated surfaces throughout. A small refrigerator is present and looks like it may have leaked at one time, floor has rusty stains. Floor is very dirty throughout. Sweet odor upon entry, could not locate source. Fresh air supply and bathroom exhaust grills dusty.

Corrective Actions to be Completed by Site Based Staff

Remove, replace, date A/C Filters	▼
Encourage occupant to reduce clutter	▼
Remove cardboard boxes	▼
Store items in plastic containers with lids	▼
Consider removing or thoroughly cleaning area rug	▼
Clean ALL surfaces and sanitize flooring	▼
Clean Exhaust & Supply Grills with Wexcide	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce Humidity Levels	▼
Repair HVAC to Reduce CO2 Levels	▼
Evaluate fresh air damper at HVAC	▼
Clean entire HVAC system	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Collins Elementary

Evaluation Date

Time of Day

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
<input type="text" value="606"/>	<input type="text" value="76.9"/>	<input type="text" value="72 - 78"/>	<input type="text" value="60.9"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="1249"/>	<input type="text" value="MAX 700 > Ambient"/>	<input type="text" value="16"/>
Noticeable Odor		<input type="text" value="No"/>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	<input type="text" value="Tectum"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="stain above 1st AC"/>
Walls	<input type="text" value="Plaster/Tack Board"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>
Floor	<input 12"="" type="text" value="12" vinyl"="" x=""/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text"/>

Ceiling Clean	<input type="text" value="No"/>	HVAC Supply Grills Clean	<input type="text" value="Yes"/>	HVAC Return Grills Clean	<input type="text" value="No"/>
Walls Clean	<input type="text" value="Yes"/>	Inside of Supply Duct Clean	<input type="text" value="No"/>	Inside of Return Duct Clean	<input type="text" value="No"/>
Flooring Clean	<input type="text" value="No"/>	Ceiling at Supply Grills Clean	<input type="text" value="N/a"/>		
Room Surfaces Clean	<input type="text" value="No"/>				

Trash Removed	<input type="text" value="No"/>	Exhaust Fans Working	<input type="text" value="Yes"/>	Unapproved Chemicals / Cleaners in Room	<input type="text" value="No"/>
Signs of Pests	<input type="text" value="No"/>	Drain Traps Wet	<input type="text" value="Yes"/>	Air Fresheners in Room	<input type="text" value="No"/>
Room Cluttered	<input type="text" value="Yes"/>	Food if Stored in Room is in Sealed Containers	<input type="text" value="N/A"/>		

Mechanical Equipment Location	<input type="text" value="Floor unit in classroom"/>		Mechanical Room Clean	<input type="text" value="N/A"/>	
Filters Installed Properly	<input type="text" value="Yes"/>	Filters Clean	<input type="text" value="No"/>	Inside of HVAC Unit Clean	<input type="text" value="No"/>
Condensate Pan Clean	<input type="text" value="N/A"/>	Cooling Coil Clean	<input type="text" value="Yes"/>		

Fresh Air Intake Location	<input type="text" value="Ducted Pre-treatment system"/>	Fresh Air Intake Free of Obstruction	<input type="text" value="Yes"/>
Pollutant Sources Near Air Intake	<input type="text" value="No"/>		

Observations

Classroom is somewhat cluttered with books and other supplies. Four (4) area rugs in room, dirty, stained, dirt underneath. Sink is clogged. Blinds clean, but window sill has debris and dust on horizontal and elevated surfaces throughout. Floor is dirty throughout. Fresh air supply and bathroom exhaust grills dusty. Teacher reports kids complain room is cold, but teachers are warm. No inside allergen symptoms reported by teachers.

Corrective Actions to be Completed by Site Based Staff

Remove, replace, date A/C Filters	▼
Encourage occupant to reduce clutter	▼
Store items in plastic containers with lids	▼
Consider removing or thoroughly cleaning area rug	▼
Clean ALL surfaces and sanitize flooring	▼
Clean Exhaust & Supply Grills with Wexcide	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce Humidity Levels	▼
Repair HVAC to Reduce CO2 Levels	▼
Evaluate fresh air damper at floor HVAC	▼
Clean entire HVAC system	▼
	▼
	▼
	▼

IAQ Assessment

Collins Elementary

Evaluation Date

Time of Day

Outdoor Conditions Temperature Relative Humidity Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants	
<input type="text" value="708"/>	<input type="text" value="78.1"/>	<input type="text" value="72 - 78"/>	<input type="text" value="48.2"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="4736"/>	<input type="text" value="MAX 700 > Ambient"/>	<input type="text" value="16"/>	
Noticeable Odor		<input type="text" value="No"/>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	<input type="text" value="Tectum"/>		<input type="text" value="Yes"/>		<input type="text" value="No"/>		<input type="text" value="1 large stain, 2 smaller stains"/>	
Walls	<input type="text" value="Plaster/Tack Board"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>	
Floor	<input 12"="" type="text" value="12" vinyl"="" x=""/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>	
Ceiling Clean		<input type="text" value="Yes"/>	HVAC Supply Grills Clean		<input type="text" value="No"/>	HVAC Return Grills Clean		<input type="text" value="No"/>
Walls Clean		<input type="text" value="Yes"/>	Inside of Supply Duct Clean		<input type="text" value="Yes"/>	Inside of Return Duct Clean		<input type="text" value="No"/>
Flooring Clean		<input type="text" value="Yes"/>	Ceiling at Supply Grills Clean		<input type="text" value="N/a"/>			
Room Surfaces Clean		<input type="text" value="No"/>						
Trash Removed		<input type="text" value="No"/>	Exhaust Fans Working		<input type="text" value="N/A"/>	Unapproved Chemicals / Cleaners in Room		<input type="text" value="No"/>
Signs of Pests		<input type="text" value="No"/>	Drain Traps Wet		<input type="text" value="Yes"/>	Air Fresheners in Room		<input type="text" value="No"/>
Room Cluttered		<input type="text" value="Yes"/>	Food if Stored in Room is in Sealed Containers		<input type="text" value="No"/>			
Mechanical Equipment Location			<input type="text" value="Floor unit in classroom"/>			Mechanical Room Clean		<input type="text" value="N/A"/>
Filters Installed Properly		<input type="text" value="No"/>	Filters Clean		<input type="text" value="No"/>	Inside of HVAC Unit Clean		<input type="text" value="No"/>
Condensate Pan Clean		<input type="text" value="N/A"/>	Cooling Coil Clean		<input type="text" value="Yes"/>			
Fresh Air Intake Location			<input type="text" value="Ducted Pre-treatment system"/>			Fresh Air Intake Free of Obstruction		<input type="text" value="Yes"/>
Pollutant Sources Near Air Intake			<input type="text" value="No"/>					

Observations

Classroom is cluttered with books and other supplies. One (1) area rug in room, dirty, stained, dirt underneath. Blinds clean, but window sill has debris and dust on horizontal and elevated surfaces throughout. Floor is dirty/dusty in corners. Crack observed in ceiling concrete (near beam and hallway wall). Floor HVAC unit (back of room) is cool/adequate temperature close to the unit, but temperature increases as move away.

Corrective Actions to be Completed by Site Based Staff

Remove, replace, date A/C Filters	▼
Encourage occupant to reduce clutter	▼
Remove cardboard boxes	▼
Store items in plastic containers with lids	▼
Consider removing or thoroughly cleaning area rug	▼
Clean horizontal/elevated surfaces	▼
Clean Exhaust & Supply Grills with Wexcide	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce CO2 Levels	▼
Set Temperature to 72 - 78 degrees	▼
Evaluate fresh air damper at Floor HVAC	▼
Evaluate and repair cause of stained ceiling	▼
Clean entire HVAC system	▼
	▼
	▼
	▼

IAQ Assessment

Collins Elementary

Evaluation Date

Time of Day

Outdoor Conditions

Temperature

Relative Humidity

Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants	
<input type="text" value="710"/>	<input type="text" value="76.6"/>	<input type="text" value="72 - 78"/>	<input type="text" value="57.3"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="3529"/>	<input type="text" value="MAX 700 > Ambient"/>	<input type="text" value="1"/>	
Noticeable Odor		<input type="text" value="Yes"/>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	<input type="text" value="Tectum"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>	
Walls	<input type="text" value="Plaster/Tack Board"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>	
Floor	<input 12"="" type="text" value="12" vinyl"="" x=""/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text"/>	
Ceiling Clean		<input type="text" value="Yes"/>	HVAC Supply Grills Clean		<input type="text" value="Yes"/>	HVAC Return Grills Clean		<input type="text" value="No"/>
Walls Clean		<input type="text" value="Yes"/>	Inside of Supply Duct Clean		<input type="text" value="No"/>	Inside of Return Duct Clean		<input type="text" value="No"/>
Flooring Clean		<input type="text" value="Yes"/>	Ceiling at Supply Grills Clean		<input type="text" value="N/a"/>			
Room Surfaces Clean		<input type="text" value="No"/>						
Trash Removed		<input type="text" value="No"/>	Exhaust Fans Working		<input type="text" value="N/A"/>	Unapproved Chemicals / Cleaners in Room		<input type="text" value="No"/>
Signs of Pests		<input type="text" value="No"/>	Drain Traps Wet		<input type="text" value="Yes"/>	Air Fresheners in Room		<input type="text" value="Yes"/>
Room Cluttered		<input type="text" value="Yes"/>	Food if Stored in Room is in Sealed Containers		<input type="text" value="N/A"/>			
Mechanical Equipment Location			<input type="text" value="Floor unit in classroom"/>			Mechanical Room Clean		<input type="text" value="N/A"/>
Filters Installed Properly		<input type="text" value="Yes"/>	Filters Clean		<input type="text" value="No"/>	Inside of HVAC Unit Clean		<input type="text" value="No"/>
Condensate Pan Clean		<input type="text" value="N/A"/>	Cooling Coil Clean		<input type="text" value="Yes"/>			
Fresh Air Intake Location			<input type="text" value="Ducted Pre-treatment system"/>			Fresh Air Intake Free of Obstruction		<input type="text" value="Yes"/>
Pollutant Sources Near Air Intake			<input type="text" value="No"/>					

Observations

Classroom is somewhat cluttered with books, papers and other supplies. Teacher reports room is always hot. One (1) area rug in room, dirty, stained, dirt underneath. Blinds clean, but window sill has debris and dust on horizontal and elevated surfaces throughout. Crack observed in ceiling concrete (near beam and hallway wall). Floor HVAC unit (back of room) is cool/adequate temperature close to the unit, but temperature increases as move away.

Corrective Actions to be Completed by Site Based Staff

Remove, replace, date A/C Filters	▼
Remove air fresheners	▼
Encourage occupant to reduce clutter	▼
Store items in plastic containers with lids	▼
Consider removing or thoroughly cleaning area rug	▼
Clean horizontal/elevated surfaces	▼
Clean Exhaust & Supply Grills with Wexcide	▼
Clean cobwebs from low corners	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce CO2 Levels	▼
Evaluate fresh air damper at HVAC	▼
Evaluate and repair ceiling crack	▼
Clean entire HVAC system	▼
	▼
	▼
	▼