

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

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February 13, 2018

Signature on File

TO: Danielle Smith, Principal
Bennett Elementary

FROM: Daniel Meyer, Project Manger
Environmental Health & Safety Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

<u>For Custodial Supervisor Use Only</u>	
<input type="checkbox"/>	Custodial Issues Addressed
<input type="checkbox"/>	Custodial Issues Not Addressed
<hr/>	
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On February 12, 2018, I conducted an assessment at **Bennett 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.

DM:smn
Enc.

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

IAQ Assessment

Bennett Elementary

Evaluation Date February 12, 2018

Time of Day 10:00 AM

Outdoor Conditions Temperature 80.1

Relative Humidity 76.1

Ambient CO2 407

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
850	69.4	72 - 78	61.4	30% - 60%	1324	MAX 700 > Ambient	3
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Walls		Floor			
No		2' X 4' Lay in		No		No	
No		Drywall		No		Under window	
No		12" x 12" Vinyl		No		No	
Ceiling Clean		Walls Clean		Flooring Clean		Room Surfaces Clean	
Yes		Yes		Yes		Yes	
		HVAC Supply Grills Clean		Inside of Supply Duct Clean		Ceiling at Supply Grills Clean	
		Yes		No		No	
		Exhaust Fans Working		Drain Traps Wet		Food if Stored in Room is in Sealed Containers	
		Yes		Yes		Yes	
		Unapproved Chemicals / Cleaners in Room		Air Fresheners in Room			
		No		No			
Mechanical Equipment Location		Bard like HVAC system in classroom				Mechanical Room Clean	
N/A		Filters Installed Properly		Filters Clean		Inside of HVAC Unit Clean	
Yes		Yes		Yes		No	
Condensate Pan Clean		Cooling Coil Clean					
No		No					
Fresh Air Intake Location		Behind Bard unit/Exterior wall				Fresh Air Intake Free of Obstruction	
No		No				Yes	

Observations

East wall - drywall wet under the window and around the door. Window needs to be sealed properly and drywall needs to be replaced. Ceiling tiles around the supply grills need to be cleaned. Lights opened up and lens wiped clean. Inside of the A/C unit and supply drops need to be cleaned. Live plants need to be removed from classroom. Water at the base leads to higher humidity and moist soil contain various types of molds. CO2 levels are slightly elevated. Desiccant wheels in A/C unit are not working properly.

Corrective Actions to be Completed by Site Based Staff

Clean dust from ceiling tiles or replace	▼
Open light fixture and wipe lenses	▼
Remove live plants from room	▼
Soil can be source of microbial growth	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Set Temperature to 72 - 78 degrees	▼
Repair HVAC to Reduce CO2 Levels	▼
Clean entire HVAC system - unit and drops	▼
Evaluate and repair cause of water damaged	▼
wall material (under window / around door)	▼
Remove and replace wall material as needed	▼
	▼
	▼

IAQ Assessment

Bennett Elementary

Evaluation Date February 12, 2018

Time of Day 10:00 AM

Outdoor Conditions Temperature 80.1

Relative Humidity 76.1

Ambient CO2 407

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants	
851	72.6	72 - 78	70.6	30% - 60%	579	MAX 700 > Ambient	3	
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	2' X 4' Lay in		No		No			
Walls	Drywall		Yes		No		Under window	
Floor	12" x 12" Vinyl		No		No			
Ceiling Clean		Yes	HVAC Supply Grills Clean		Yes	HVAC Return Grills Clean		Yes
Walls Clean		Yes	Inside of Supply Duct Clean		No	Inside of Return Duct Clean		No
Flooring Clean		Yes	Ceiling at Supply Grills Clean		No			
Room Surfaces Clean		Yes						
Trash Removed		Yes	Exhaust Fans Working		Yes	Unapproved Chemicals / Cleaners in Room		No
Signs of Pests		No	Drain Traps Wet		Yes	Air Fresheners in Room		Yes
Room Cluttered		No	Food if Stored in Room is in Sealed Containers		Yes			
Mechanical Equipment Location			Bard like HVAC system in classroom			Mechanical Room Clean		N/A
Filters Installed Properly		Yes	Filters Clean		Yes	Inside of HVAC Unit Clean		No
Condensate Pan Clean		No	Cooling Coil Clean		No			
Fresh Air Intake Location			Behind Bard unit/Exterior wall ▼			Fresh Air Intake Free of Obstruction		Yes
Pollutant Sources Near Air Intake			No ▼					

Observations

Remove air freshener. East wall - drywall wet under the window and around the door. Window needs to be sealed properly and drywall needs to be replaced. Ceiling tiles around the supply grills need to be cleaned. Lights opened up and lens wiped clean. Inside of the A/C unit and supply drops need to be cleaned. Desiccant wheels in A/C unit are not working properly.

Corrective Actions to be Completed by Site Based Staff

Clean dust from ceiling tiles or replace	▼
Open light fixture and wipe lenses	▼
Remove air fresheners	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce Humidity Levels	▼
Clean entire HVAC system - unit and drops	▼
Evaluate and repair cause of water damaged wall material (under window / around doors)	▼
Remove and replace wall material as needed	▼
	▼
	▼
	▼

IAQ Assessment

Bennett Elementary

Evaluation Date February 12, 2018

Time of Day 10 :00 AM

Outdoor Conditions Temperature 80.1 Relative Humidity 76.1 Ambient CO2 407

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants	
852	70.9	72 - 78	71.9	30% - 60%	711	MAX 700 > Ambient	2	
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	2' X 4' Lay in		Yes		No		1 tile	
Walls	Drywall		Yes		No		Under window	
Floor	12" x 12" Vinyl		No		No			
Ceiling Clean		Yes	HVAC Supply Grills Clean		Yes	HVAC Return Grills Clean		No
Walls Clean		Yes	Inside of Supply Duct Clean		No	Inside of Return Duct Clean		No
Flooring Clean		Yes	Ceiling at Supply Grills Clean		No			
Room Surfaces Clean		Yes						
Trash Removed		Yes	Exhaust Fans Working		Yes	Unapproved Chemicals / Cleaners in Room		No
Signs of Pests		No	Drain Traps Wet		Yes	Air Fresheners in Room		Yes
Room Cluttered		No	Food if Stored in Room is in Sealed Containers		Yes			
Mechanical Equipment Location			Bard like HVAC system in classroom			Mechanical Room Clean		N/A
Filters Installed Properly		Yes	Filters Clean		Yes	Inside of HVAC Unit Clean		No
Condensate Pan Clean		No	Cooling Coil Clean		No			
Fresh Air Intake Location			Behind Bard unit/Exterior wall ▼			Fresh Air Intake Free of Obstruction		Yes
Pollutant Sources Near Air Intake			No ▼					

Observations

Remove air freshener. East wall - drywall wet under the window and around the door. Window needs to be sealed properly and drywall needs to be replaced. Ceiling tiles around the supply grills need to be cleaned. Lights opened up and lens wiped clean. Inside of the A/C unit and supply drops need to be cleaned. Desiccant wheels in A/C unit are not working properly.

Corrective Actions to be Completed by Site Based Staff

Clean dust from ceiling tiles or replace	▼
Open light fixture and wipe lenses	▼
Remove air fresheners	▼
Clean return air grill	▼
Remove and replace stained ceiling tile	▼
If stains return, contact COMPASS for work order	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce Humidity Levels	▼
Clean entire HVAC system - unit and drops	▼
Evaluate and repair cause of water damaged wall material (under window / around doors)	▼
Remove and replace wall material as needed	▼
	▼
	▼
	▼

IAQ Assessment

Bennett Elementary

Evaluation Date February 12, 2018

Time of Day 10:00 AM

Outdoor Conditions Temperature 80.1

Relative Humidity 76.1

Ambient CO2 407

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
853	72.4	72 - 78	79.1	30% - 60%	784	MAX 700 > Ambient	3
Noticeable Odor		No	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 4' Lay in		No		No		
Walls	Drywall		Yes		No		Under window & South wall
Floor	12" x 12" Vinyl		No		No		
Ceiling Clean		Yes	HVAC Supply Grills Clean		Yes	HVAC Return Grills Clean	
Walls Clean		Yes	Inside of Supply Duct Clean		No	Inside of Return Duct Clean	
Flooring Clean		Yes	Ceiling at Supply Grills Clean		No		
Room Surfaces Clean		Yes					
Trash Removed		Yes	Exhaust Fans Working		Yes	Unapproved Chemicals / Cleaners in Room	
Signs of Pests		No	Drain Traps Wet		Yes	Air Fresheners in Room	
Room Cluttered		No	Food if Stored in Room is in Sealed Containers		Yes		
Mechanical Equipment Location			Bard like HVAC system in classroom			Mechanical Room Clean	
Filters Installed Properly		Yes	Filters Clean		Yes	Inside of HVAC Unit Clean	
Condensate Pan Clean		No	Cooling Coil Clean		No		
Fresh Air Intake Location			Behind Bard unit/Exterior wall ▼			Fresh Air Intake Free of Obstruction	
Pollutant Sources Near Air Intake			No ▼			Yes	

Observations

East wall - drywall wet under the window and around the door. Window needs to be sealed properly and drywall needs to be replaced. SOUTH wall - roof leak repaired but drywall below is wet. Ceiling tiles around the supply grills need to be cleaned. Lights opened up and lens wiped clean. Inside of the A/C unit and supply drops need to be cleaned. Desiccant wheels in A/C unit are not working properly.

Corrective Actions to be Completed by Site Based Staff

Clean dust from ceiling tiles or replace	▼
Open light fixture and wipe lenses	▼
Clean return air grill	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to Reduce Humidity Levels	▼
Clean entire HVAC system - unit and drops	▼
Evaluate and repair cause of water damaged wall material (under window / around doors)	▼
South wall - Remove and replace wall material	▼
	▼
	▼
	▼