THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

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March 27, 20	Signature on File	For Custodial Supervisor Use Only
TO:	Robert Schneider, Principal Davie Elementary	Custodial Issues Addressed
EDOM	•	Custodial Issues Not Addressed
FROM:	Alison Witoshynsky, Project Manager Environmental Health & Safety Department	
SUBJECT:	Indoor Air Quality (IAQ) Assessment	

On March 26, 2018, I conducted an assessment at **Davie 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:lb 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

Davie E	Elementary Evaluation Da	March 26, 2018	Time of Day 1	015
Outdoor Conditions Temperat	ture 81.1 Relative	e Humidity 59.7	Ambient CO2 40	07
Fish Temperature Rar 107A 72.0 72 -		Range co ² 456		0
Noticeable Odor No Ceiling 2' X 4' Lay in Walls Drywall	Visible water damage / staining? No	Visible microbial growth?	Amount of material affected	
Walls Drywall Floor 12" x 12" Vinyl	No No	No No		
Ceiling Clean Yes Walls Clean Yes	HVAC Supply Grills Clean Inside of Supply	Yes	HVAC Return Grills Clean Inside of Return	Yes
Flooring Clean Yes Room Surfaces Clean	Duct Clean Ceiling at Supply Grills Clean	Yes	Duct Clean	Yes
Trash Removed Yes Signs of Pests No	Exhaust Fans Working Drain Traps Wet	N/A	Unapproved Chemicals / Cleaners in Room	Yes
Room Cluttered Yes	Food if Stored in Room is in Sealed Containers	No	Air Fresheners in Room	No
Mechanical Equipment Location	FISH 149		Mechanical Room Clean	Yes
Filters Installed Properly Condensate Pan Clean Yes	Filters Clean Cooling Coil Clean	Yes Yes	Inside of HVAC Unit Clean	No
Pollutant Sources Near Air	Roof top	▼	Fresh Air Intake Free of Obstruction	Yes
Observations				
Guidance Office. Added when ar	rived.			
Office is cluttered. Cardboard bo horizontal surfaces, floor under o Personal cleaning products, Com	lesk and in corners. Ceiling i	tiles in some locations		
Corrective Actions to be Comple	ted by Site Based Staff	Corrective Actio	ns to be Completed by PF	

Room to cluttered to clean properly	•
Encourage occupant to reduce clutter/personnal	•
items; then dust all surfaces & vacuum floor	▼
Thoroughly clean horizontal surfaces	▼
Remove cardboard boxes	•
Clean HVAC Return Grill with Wexcide	▼
Ensure ceiling tiles are installed properly	▼
Remove non-approved chemicals	▼

Vacuum entire HVAC system unit	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

Davie E	Elementary Evaluation Date	March 26, 2018	Time of Day 1015
Outdoor Conditions Temperat	ure 81.1 Relative	Humidity 59.7	Ambient CO2 407
Fish Temperature Ran 122/123 72.3 72 -		Range <u>CO</u> % - 60% 430	
Noticeable Odor No Ceiling 2' X 4' Lay in Walls Drywall/Tackboard	Visible water damage / staining? Yes No	Visible microbial growth? No No	Amount of material affected small stains at corners
Floor 12" x 12" Vinyl Ceiling Clean Yes Walls Clean No Flooring Clean No Room Surfaces No	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply	Yes Yes	HVAC Return Grills Clean Inside of Return Duct Clean No
Trash Removed Yes Signs of Pests No Room Cluttered Yes	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	N/A N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room
Mechanical Equipment Location Filters Installed Properly Condensate Pan Clean Yes	FISH 149 Filters Clean Cooling Coil Clean	Yes	Mechanical Room Clean Inside of HVAC Unit Clean No
Pollutant Sources Near Air	Roof top No	▼	Fresh Air Intake Free of Obstruction

Classrooms. Group of four (122, 123,120, 121) separated with movable partitions. All furniture is moved to sides of room for middle room floor cleaning. Cardboard boxes, dust under and around items on shelves (stored papers, books, personal items, fabric covered cart, electronics), flag is dusty. Dust layer near floor, behind baseboard AND around lights in ceiling. Dust present within Return drop. FISH 123 is closest to an exterior door that is reportedly kept open during drop-off and dismissal. New sink cabinet present in FISH 123. Return drops dusty.

Corrective Actions to be Completed by Site Based Staff

Clean dust from ceilings, around lights	▼
Room to cluttered to clean properly	
Encourage occupant to reduce clutter	▼
Thoroughly clean horizontal surfaces	▼
Floor needs mop/vacuum along walls/corners	▼
Remove cardboard boxes	▼
Ensure doors and windows remain closed	
	▼

Clean entire HVAC system - unit and drops	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

Davi	e Elementary Evaluation Date	March 26, 2018	Time of Day 1015
Outdoor Conditions Tempe	rature 82.1 Relative	Humidity 59.7	Ambient CO2 407
850 69.5 7	2 - 78 62.8 30%	Range CO ² % - 60% 433 Visible microbial	Range # Occupants MAX 700 > Ambient Amount of material
Ceiling 2' X 4' Lay in Walls Drywall Floor 12" x 12" Vinyl	Visible water damage / staining? Yes Yes No	growth? No No	affected 1 stained CT Wside prev. water damaged under CT
Ceiling Clean Yes Walls Clean Yes Flooring Clean Yes Room Surfaces Clean	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	No Yes Yes	HVAC Return Grills Clean Inside of Return Duct Clean No
Trash Removed Yes Signs of Pests No Room Cluttered Yes	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	Yes Yes N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room
Mechanical Equipment Location Filters Installed Properly Condensate Pan Clean N/	Filters Clean	Yes Yes	Mechanical Room Clean N/A Inside of HVAC Unit Clean No
Fresh Air Intake Location Pollutant Sources Near Air Intake Observations	Behind Bard unit/Exterior wall	▼	Fresh Air Intake Free of Obstruction Yes

Classroom, being used for storage. Server is present at back corner of classroom. Server has moderate dust layer, needs cleaning. Lots of cardboard boxes stored in room and restroom.

One stained ceiling tile is present adjacent to the restroom on the wall adjoining FISH 852. Drywall above CT grid has microbial growth, but is dry. There is evidence of past water intrusion on wall under this area.

HVAC supply grills have dust behind, need to be removed and cleaned. HVAC return grill and inside of unit are dusty. Doors were recently open during floor cleaning resulting in slightly elevated Relative Humidity.

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean horizontal/vertical surfaces,	▼
including server tower and book cases	▼
-	▼
Clean HVAC Return Grill with Wexcide	▼
Remove cardboard boxes	▼
Dust on blinds & window sills, clean appropriately	▼
	▼
	▼

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Remove and Clean HVAC supply grills	▼
Clean entire HVAC system - unit	▼
Set Temperature to 72 - 78 degrees	▼
Evaluate and repair cause of water damaged	▼
ceiling material/ceiling tile	▼
Remove and replace ceiling material as needed	▼
Caulk roof seam	▼
Check RH after cleaning inside of unit	▼

Davi	e Elementary Evaluation Date	March 26, 2018	Time of Day 1015
Outdoor Conditions Tempe	rature 82.1 Relative	Humidity 59.7	Ambient CO2 407
852 72.3 7	2 - 78 57.6 30%	Range CO ² 6 - 60% Visible microbial	Range # Occupants MAX 700 > 0 Ambient Amount of material
Noticeable Odor Yes Ceiling 2' X 4' Lay in Walls Drywall	Visible water damage / staining? No Yes	growth?	affected 1 stained CT Wside prev. water damaged under CT
Floor 12" x 12" Vinyl	No	No	
Ceiling Clean Yes Walls Clean Yes Flooring Clean Yes Room Surfaces Yes Clean	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	Yes Yes	HVAC Return Grills Clean Inside of Return Duct Clean No
Trash Removed Yes Signs of Pests No Room Cluttered Yes	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	Yes Yes N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room
Mechanical Equipment Location Filters Installed Properly Condensate Pan Clean N/	es Filters Clean		Mechanical Room Clean N/A Inside of HVAC Unit Clean No
Fresh Air Intake Location Pollutant Sources Near Air Intake Observations	Behind Bard unit/Exterior wall	▼	Fresh Air Intake Free of Obstruction

Room is cluttered, personal items and not SBBC carpets. Fabric personal items should be removed for cleaning.
Stuffed animals and air fresheners should be removed. Dust layer on window sills and blinds. HVAC supply grills have dust behind, need to be removed and cleaned. HVAC return grill and inside of unit are dusty.

No stained ceiling tiles, but evidence of water damaged drywall near the area in FISH 850. Drywall above CT grid has microbial growth, but is dry.

Corrective Actions to be Completed by Site Based Staff

Room to cluttered to clean properly	▼
Encourage occupant to reduce clutter	▼
Remove stuffed animals as source of allergens	▼
Remove air fresheners	▼
Thoroughly clean horizontal surfaces	▼
Dust on blinds & window sills, clean appropriately	▼
Clean HVAC Return Grill with Wexcide	▼
	▼

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lean HVAC supply grills ▼
e HVAC system - unit ▼
▼
ir cause of water damaged ▼
naterial/ceiling tile
e ceiling material as needed ▼
lk roof seam ▼
▼

Davie Ele	ementary Evaluation Date March 26, 20	118 Time of Day 1015
Outdoor Conditions Temperatu	re 82.1 Relative Humidity 59.	7 Ambient CO2 407
Fish Temperature Rang 851 71.3 72 - 7		CO ² Range # Occupants 547 MAX 700 > 0 Ambient
Noticeable Odor No Ceiling 2' X 4' Lay in Walls Drywall Floor 12" x 12" Vinyl	Visible water damage / visible microbia growth? No N	Amount of material affected
Ceiling Clean Yes Walls Clean Yes Flooring Clean Yes Room Surfaces Yes Clean	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean Yes	HVAC Return Grills Clean Inside of Return Duct Clean No
Trash Removed Yes Signs of Pests No Room Cluttered Yes	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers Yes N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room
Mechanical Equipment Location B Filters Installed Properly Yes Condensate Pan Clean N/A	Filters Clean Cooling Coil Clean Yes	Mechanical Room Clean N/A Inside of HVAC Unit Clean No
Fresh Air Intake Location Pollutant Sources Near Air Intake		Fresh Air Intake Free of Obstruction
Observations		
	nd, need to be removed and cleaned. HVAC re	
Corrective Actions to be Complete	ad by Cita Danad Ctaff	Actions to be Completed by PPO

Corrective Actions to be Completed by Site Based Staff

Remove cardboard boxes		
Dust on blinds & window sills, clean appropriately		
Thoroughly clean horizontal surfaces	▼	
including sides of book cases and lower corners	▼	
of wall at floor		
	▼	
	▼	
	▼	

Remove and Clean HVAC supply grills	•
Clean entire HVAC system - unit	•
Set Temperature to 72 - 78 degrees	•
Check RH after cleaning inside of unit	▼
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	•
	▼
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