

**THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA**

**ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT**

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March 27, 2018

Signature on File

TO: Robert Schneider, Principal  
**Davie Elementary**

FROM: Alison Witoshynsky, Project Manager  
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 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





# IAQ Assessment

Davie Elementary

 Evaluation Date March 26, 2018

 Time of Day 1015

 Outdoor Conditions    Temperature 82.1

 Relative Humidity 59.7

 Ambient CO2 407

Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants
850	69.5	72 - 78	62.8	30% - 60%	433	MAX 700 > Ambient	
Noticeable Odor <span style="border: 1px solid black; padding: 2px;"> </span>		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	2' X 4' Lay in		Yes	No	1 stained CT Wside		
Walls	Drywall		Yes	No	prev. water damaged under CT		
Floor	12" x 12" Vinyl		No	No			
Ceiling Clean	Yes	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	No		
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	No		
Flooring Clean	Yes	Ceiling at Supply Grills Clean	Yes				
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		No	
Room Cluttered	Yes	Food if Stored in Room is in Sealed Containers	N/A				
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	N/A	Cooling Coil Clean	Yes				
Fresh Air Intake Location	Behind Bard unit/Exterior wall ▼				Fresh Air Intake Free of Obstruction		
Pollutant Sources Near Air Intake	No ▼				Yes		

### Observations

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	▼
	▼
	▼

### Corrective Actions to be Completed by PPO

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	▼

# IAQ Assessment

Davie Elementary

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 Time of Day 1015

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 Relative Humidity 59.7

 Ambient CO2 407

Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants
852	72.3	72 - 78	57.6	30% - 60%	442	MAX 700 > Ambient	0
<b>Noticeable Odor</b>		<b>Visible water damage / staining?</b>		<b>Visible microbial growth?</b>		<b>Amount of material affected</b>	
<input type="checkbox"/> Yes		<input type="checkbox"/> No		<input type="checkbox"/> No		<input type="checkbox"/> No	
<b>Ceiling</b>	<input style="width: 100%;" type="text" value="2' X 4' Lay in"/>		<input type="checkbox"/> No	<input type="checkbox"/> No	<input style="width: 100%;" type="text" value="1 stained CT Wside"/>		
<b>Walls</b>	<input style="width: 100%;" type="text" value="Drywall"/>		<input type="checkbox"/> Yes	<input type="checkbox"/> No	<input style="width: 100%;" type="text" value="prev. water damaged under CT"/>		
<b>Floor</b>	<input 12"="" style="width: 100%;" type="text" value="12" vinyl"="" x=""/>		<input type="checkbox"/> No	<input type="checkbox"/> No	<input style="width: 100%;" type="text"/>		
<b>Ceiling Clean</b>	<input type="checkbox"/> Yes	<b>HVAC Supply Grills Clean</b>	<input type="checkbox"/> No	<b>HVAC Return Grills Clean</b>	<input type="checkbox"/> No		
<b>Walls Clean</b>	<input type="checkbox"/> Yes	<b>Inside of Supply Duct Clean</b>	<input type="checkbox"/> Yes	<b>Inside of Return Duct Clean</b>	<input type="checkbox"/> No		
<b>Flooring Clean</b>	<input type="checkbox"/> Yes	<b>Ceiling at Supply Grills Clean</b>	<input type="checkbox"/> Yes				
<b>Room Surfaces Clean</b>	<input type="checkbox"/> Yes						
<b>Trash Removed</b>	<input type="checkbox"/> Yes	<b>Exhaust Fans Working</b>	<input type="checkbox"/> Yes	<b>Unapproved Chemicals / Cleaners in Room</b>		<input type="checkbox"/> No	
<b>Signs of Pests</b>	<input type="checkbox"/> No	<b>Drain Traps Wet</b>	<input type="checkbox"/> Yes	<b>Air Fresheners in Room</b>		<input type="checkbox"/> No	
<b>Room Cluttered</b>	<input type="checkbox"/> Yes	<b>Food if Stored in Room is in Sealed Containers</b>	<input type="checkbox"/> N/A				
<b>Mechanical Equipment Location</b>	<input style="width: 100%;" type="text" value="Bard like HVAC system in classroom"/>			<b>Mechanical Room Clean</b>	<input type="checkbox"/> N/A		
<b>Filters Installed Properly</b>	<input type="checkbox"/> Yes	<b>Filters Clean</b>	<input type="checkbox"/> Yes	<b>Inside of HVAC Unit Clean</b>		<input type="checkbox"/> No	
<b>Condensate Pan Clean</b>	<input type="checkbox"/> N/A	<b>Cooling Coil Clean</b>	<input type="checkbox"/> Yes				
<b>Fresh Air Intake Location</b>	<input style="width: 100%;" type="text" value="Behind Bard unit/Exterior wall"/>			<b>Fresh Air Intake Free of Obstruction</b>	<input type="checkbox"/> Yes		
<b>Pollutant Sources Near Air Intake</b>	<input style="width: 100%;" type="text" value="No"/>						

### Observations

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	▼
	▼

### Corrective Actions to be Completed by PPO

Remove and Clean HVAC supply grills	▼
Clean entire HVAC system - unit	▼
	▼
Evaluate and repair cause of water damaged	▼
ceiling material/ceiling tile	▼
Remove and replace ceiling material as needed	▼
Caulk roof seam	▼
	▼

# IAQ Assessment

Davie Elementary

Evaluation Date March 26, 2018

Time of Day 1015

Outdoor Conditions    Temperature 82.1

Relative Humidity 59.7

Ambient CO2 407

Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants	
<span style="border: 1px solid black; padding: 2px;">851</span>	<span style="border: 1px solid black; padding: 2px;">71.3</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">65.5</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">547</span>	<b>MAX 700 &gt; Ambient</b>	<span style="border: 1px solid black; padding: 2px;">0</span>	
<b>Noticeable Odor</b>		<b>Visible water damage / staining?</b>		<b>Visible microbial growth?</b>		<b>Amount of material affected</b>		
<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;"></span>		
<b>Ceiling</b>	<span style="border: 1px solid black; padding: 2px;">2' X 4' Lay in</span>		<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;"></span>		
<b>Walls</b>	<span style="border: 1px solid black; padding: 2px;">Drywall</span>		<span style="border: 1px solid black; padding: 2px;">Yes</span>	<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;"></span>		
<b>Floor</b>	<span style="border: 1px solid black; padding: 2px;">12" x 12" Vinyl</span>		<span style="border: 1px solid black; padding: 2px;">No</span>	<span style="border: 1px solid black; padding: 2px;">No</span>		<span style="border: 1px solid black; padding: 2px;"></span>		
<b>Ceiling Clean</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>		<b>HVAC Supply Grills Clean</b>	<span style="border: 1px solid black; padding: 2px;">No</span>		<b>HVAC Return Grills Clean</b>	<span style="border: 1px solid black; padding: 2px;">No</span>	
<b>Walls Clean</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>		<b>Inside of Supply Duct Clean</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>		<b>Inside of Return Duct Clean</b>	<span style="border: 1px solid black; padding: 2px;">No</span>	
<b>Flooring Clean</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>		<b>Ceiling at Supply Grills Clean</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>				
<b>Room Surfaces Clean</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>							
<b>Trash Removed</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>		<b>Exhaust Fans Working</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>		<b>Unapproved Chemicals / Cleaners in Room</b>	<span style="border: 1px solid black; padding: 2px;">No</span>	
<b>Signs of Pests</b>	<span style="border: 1px solid black; padding: 2px;">No</span>		<b>Drain Traps Wet</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>		<b>Air Fresheners in Room</b>	<span style="border: 1px solid black; padding: 2px;">No</span>	
<b>Room Cluttered</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>		<b>Food if Stored in Room is in Sealed Containers</b>	<span style="border: 1px solid black; padding: 2px;">N/A</span>				
<b>Mechanical Equipment Location</b>	<span style="border: 1px solid black; padding: 2px;">Bard like HVAC system in classroom</span>					<b>Mechanical Room Clean</b>	<span style="border: 1px solid black; padding: 2px;">N/A</span>	
<b>Filters Installed Properly</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>		<b>Filters Clean</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>		<b>Inside of HVAC Unit Clean</b>	<span style="border: 1px solid black; padding: 2px;">No</span>	
<b>Condensate Pan Clean</b>	<span style="border: 1px solid black; padding: 2px;">N/A</span>		<b>Cooling Coil Clean</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>				
<b>Fresh Air Intake Location</b>	<span style="border: 1px solid black; padding: 2px;">Behind Bard unit/Exterior wall</span> ▼					<b>Fresh Air Intake Free of Obstruction</b>	<span style="border: 1px solid black; padding: 2px;">Yes</span>	
<b>Pollutant Sources Near Air Intake</b>	<span style="border: 1px solid black; padding: 2px;">No</span> ▼							

**Observations**

**HVAC supply grills have dust behind, need to be removed and cleaned. HVAC return grill and inside of unit are dusty.**

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**Doors were recently open during floor cleaning resulting in slightly elevated Relative Humidity.**

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**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	▼
	▼
	▼
	▼

**Corrective Actions to be Completed by PPO**

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