

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

**ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT**

**TELEPHONE (754) 321-4200**

**FACSIMILE: (754) 321-4285**

November 30, 2017

Signature on File

TO: Robert Pappas, Principal  
**Gulfstream Academy K-8**

FROM: Robert Krickovich, Coordinator, LEA  
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/>	
<hr/>	

On November 29, 2017, I conducted an assessment at **Gulfstream Academy K-8 School**. Attached are findings and recommendations for further assessment, remediation, or corrective actions needed.

The IAQ Assessment did not identify any existing conditions significantly impacting IAQ or presenting immediate health and safety concerns 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 allergens and / or conditions noted 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 any item/s identified and noted 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.

RK: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

Gulfstream Academy

Evaluation Date November 29, 2017

Time of Day 9:00 AM

Outdoor Conditions Temperature 79.5

Relative Humidity 88

Ambient CO2 432

Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants
<span style="border: 1px solid black; padding: 2px;">R7-E</span>	<span style="border: 1px solid black; padding: 2px;">67.8</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">80.3</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">650</span>	<span style="border: 1px solid black; padding: 2px;">MAX 700 &gt; Ambient</span>	<span style="border: 1px solid black; padding: 2px;">2</span>
Noticeable Odor		<span style="border: 1px solid black; padding: 2px;">No</span>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	<span style="border: 1px solid black; padding: 2px;">2' X 4' Lay in</span>		<span style="border: 1px solid black; padding: 2px;">Yes</span>		<span style="border: 1px solid black; padding: 2px;">Yes</span>		<span style="border: 1px solid black; padding: 2px;">See below</span>
Walls	<span style="border: 1px solid black; padding: 2px;">Homasote</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>
Floor	<span style="border: 1px solid black; padding: 2px;">12" x 12" Vinyl</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;">See below</span>
Ceiling Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	HVAC Supply Grills Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	HVAC Return Grills Clean <span style="border: 1px solid black; padding: 2px;">Yes</span>	
Walls Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of Supply Duct Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of Return Duct Clean <span style="border: 1px solid black; padding: 2px;">Yes</span>	
Flooring Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Ceiling at Supply Grills Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>		
Room Surfaces Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>					
Trash Removed		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Exhaust Fans Working		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Unapproved Chemicals / Cleaners in Room <span style="border: 1px solid black; padding: 2px;">No</span>	
Signs of Pests		<span style="border: 1px solid black; padding: 2px;">No</span>	Drain Traps Wet		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Air Fresheners in Room <span style="border: 1px solid black; padding: 2px;">No</span>	
Room Cluttered		<span style="border: 1px solid black; padding: 2px;">No</span>	Food if Stored in Room is in Sealed Containers		<span style="border: 1px solid black; padding: 2px;">N/A</span>		
Mechanical Equipment Location			<span style="border: 1px solid black; padding: 2px;">Wall Mounted Unit</span>			Mechanical Room Clean <span style="border: 1px solid black; padding: 2px;">N/A</span>	
Filters Installed Properly		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Filters Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of HVAC Unit Clean <span style="border: 1px solid black; padding: 2px;">No</span>	
Condensate Pan Clean		<span style="border: 1px solid black; padding: 2px;">N/A</span>	Cooling Coil Clean		<span style="border: 1px solid black; padding: 2px;">N/A</span>		
Fresh Air Intake Location			<span style="border: 1px solid black; padding: 2px;">Outside of Unit</span> ▼			Fresh Air Intake Free of Obstruction <span style="border: 1px solid black; padding: 2px;">Yes</span>	
Pollutant Sources Near Air Intake			<span style="border: 1px solid black; padding: 2px;">None</span> ▼				

**Observations**

PPO working in room - 18 ceiling tiles missing - spotty microbial growth on wood roof deck above ceiling - roof leaking water puddles on floor - Electrical conduits and boxes above ceiling no longer supported, rusted, damaged, some exposed wires -

**Corrective Actions to be Completed by Site Based Staff**

Clean staining water from floor	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

**Corrective Actions to be Completed by PPO**

Repair HVAC to Reduce Humidity Levels	▼
Set Temperature to 72 - 78 degrees	▼
Repair roofing	▼
Clean microbial growth from wood decking and spray decking with anti-microbial coating	▼
Contact SBBC Building Department regarding repair of electrical conduit	▼
Replaces water damaged ceiling insulation	▼

# IAQ Assessment

Gulfstream Academy

Evaluation Date November 29, 2017

Time of Day 9:00 AM

Outdoor Conditions    Temperature 79.5    Relative Humidity 88    Ambient CO2 432

Fish	Temperature	Range	Relative Humidity	Range	CO <sup>2</sup>	Range	# Occupants	
<span style="border: 1px solid black; padding: 2px;">R7-F</span>	<span style="border: 1px solid black; padding: 2px;">68.5</span>	<span style="border: 1px solid black; padding: 2px;">72 - 78</span>	<span style="border: 1px solid black; padding: 2px;">65.1</span>	<span style="border: 1px solid black; padding: 2px;">30% - 60%</span>	<span style="border: 1px solid black; padding: 2px;">1402</span>	<span style="border: 1px solid black; padding: 2px;">MAX 700 &gt; Ambient</span>	<span style="border: 1px solid black; padding: 2px;">24</span>	
Noticeable Odor		<span style="border: 1px solid black; padding: 2px;">No</span>	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	<span style="border: 1px solid black; padding: 2px;">2' X 4' Lay in</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;">2 Stained Tiles</span>	
Walls	<span style="border: 1px solid black; padding: 2px;">Homasote</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;">40 Sq Ft</span>	
Floor	<span style="border: 1px solid black; padding: 2px;">12" x 12" Vinyl</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;">10 Sq Ft</span>	
Ceiling Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	HVAC Supply Grills Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	HVAC Return Grills Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>
Walls Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of Supply Duct Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of Return Duct Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>
Flooring Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Ceiling at Supply Grills Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>			
Room Surfaces Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>						
Trash Removed		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Exhaust Fans Working		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Unapproved Chemicals / Cleaners in Room		<span style="border: 1px solid black; padding: 2px;">No</span>
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Room Cluttered		<span style="border: 1px solid black; padding: 2px;">No</span>	Food if Stored in Room is in Sealed Containers		<span style="border: 1px solid black; padding: 2px;">N/A</span>			
Mechanical Equipment Location			<span style="border: 1px solid black; padding: 2px;">Wall Mounted Unit</span>			Mechanical Room Clean		<span style="border: 1px solid black; padding: 2px;">N/A</span>
Filters Installed Properly		<span style="border: 1px solid black; padding: 2px;">No</span>	Filters Clean		<span style="border: 1px solid black; padding: 2px;">Yes</span>	Inside of HVAC Unit Clean		<span style="border: 1px solid black; padding: 2px;">No</span>
Condensate Pan Clean		<span style="border: 1px solid black; padding: 2px;">N/A</span>	Cooling Coil Clean		<span style="border: 1px solid black; padding: 2px;">N/A</span>			
Fresh Air Intake Location			<span style="border: 1px solid black; padding: 2px;">Outside of Unit</span> ▼			Fresh Air Intake Free of Obstruction		<span style="border: 1px solid black; padding: 2px;">Yes</span>
Pollutant Sources Near Air Intake			<span style="border: 1px solid black; padding: 2px;">None</span> ▼					

**Observations**

2 Stained ceiling tiles near restroom - Water stain in one light fixture - 1 Ceiling tile missing over sink - Water damaged walls under both HVAC Return grills - Flooring water damaged under both HVAC return grills - HVAC filters not installed properly, fell out of holders- spotty microbial growth on wood roof deck above missing ceiling tile. School based staff should be removing stained ceiling tiles and calling in work orders for roofing repairs, and to repair water damaged walls

**Corrective Actions to be Completed by Site Based Staff**

Clean water stain from light fixture	▼
Remove and replace stained ceiling tile	▼
If stains return, contact COMPASS for work order	▼
Remove and replace A/C Filters	▼
	▼
	▼
	▼
	▼

**Corrective Actions to be Completed by PPO**

Repair HVAC to Reduce Humidity Levels	▼
Set Temperature to 72 - 78 degrees	▼
Repair HVAC to reduce CO2	▼
Clean microbial growth from wood decking and	▼
spray decking with anti-microbial coating	▼
Evaluate and repair cause of water damaged	▼
wall material and flooring	▼
Repair water damaged wall and flooring	▼