

THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA

ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

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December 20, 2016

Signature on File

TO: Robert Pappas, Principal
Gulfstream Academy of Hallandale Beach

FROM: Robert Krickovich, Coordinator, LEA
Environmental Health & Safety Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

For Custodial Supervisor Use Only

Custodial Issues Addressed

Custodial Issues Not Addressed

On December 19, 2016, I conducted an assessment at **Gulfstream Academy of Hallandale Beach**. 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.

RK: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

Gulfstream Academy

Evaluation Date December 19, 2016

Time of Day 9:30 AM

Outdoor Conditions Temperature 81.3 Relative Humidity 89.9 Ambient CO2 446

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
112	76.4	72 - 78	76.6	30% - 60%	936	MAX 700 > Ambient	31
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Walls		Floor			
No		Yes		No		2 Square Feet	
2' X 4' Lay in		Plaster		No		No	
Carpet		No		No		No	
Ceiling Clean		Walls Clean		Flooring Clean		Room Surfaces Clean	
Yes		Yes		Yes		No	
HVAC Supply Grills Clean		Inside of Supply Duct Clean		Ceiling at Supply Grills Clean		HVAC Return Grills Clean	
Yes		Yes		Yes		Yes	
Trash Removed		Signs of Pests		Room Cluttered		Exhaust Fans Working	
Yes		No		No		N/A	
Drain Traps Wet		Food if Stored in Room is in Sealed Containers		Unapproved Chemicals / Cleaners in Room		Air Fresheners in Room	
N/A		N/A		No		No	
Mechanical Equipment Location		Filters Installed Properly		Condensate Pan Clean		Mechanical Room Clean	
Ceiling Mounted Unit		N/A		N/A		N/A	
Filters Clean		Cooling Coil Clean		Inside of HVAC Unit Clean			
N/A		N/A		N/A		N/A	
Fresh Air Intake Location		Pollutant Sources Near Air Intake		Fresh Air Intake Free of Obstruction			
Unknown				<input type="checkbox"/>			

Observations

Surfaces dusty - Stained ceiling tile under unit - Unit turned off, water drips on carpet when unit is running - 2 broken missing ceiling tiles - Humidity Elevated.

Corrective Actions to be Completed by Site Based Staff

Replace broken / missing ceiling tiles	▼
Remove and replace stained ceiling tile	▼
If stains return, contact COMPASS for work order	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate and repair cause of stained ceiling tile	▼
Repair HVAC unit to stop condensation leak	▼
Repair HVAC to Reduce Humidity Levels	▼
Replace water damaged carpet squares under HVAC unit	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Gulfstream Academy

Evaluation Date December 19, 2016

Time of Day 9:30 AM

Outdoor Conditions Temperature 81.3 Relative Humidity 89.9 Ambient CO2 446

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
114	73.9	72 - 78	89.5	30% - 60%	1261	MAX 700 > Ambient	21
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
No		No		No			
Ceiling	2' X 4' Lay in		No	No			
Walls	Plaster		No	No			
Floor	12" x 12" Vinyl		Yes	No	10 Square Feet		
Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes		
Walls Clean	No	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes		
Flooring Clean	No	Ceiling at Supply Grills Clean	Yes				
Room Surfaces Clean	No						
Trash Removed	Yes	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No		
Signs of Pests	No	Drain Traps Wet	N/A	Air Fresheners in Room	No		
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A				
Mechanical Equipment Location	Ceiling Mounted Unit				Mechanical Room Clean	N/A	
Filters Installed Properly	N/A	Filters Clean	N/A	Inside of HVAC Unit Clean	N/A		
Condensate Pan Clean	N/A	Cooling Coil Clean	N/A				
Fresh Air Intake Location	Unknown ▼				Fresh Air Intake Free of Obstruction	<input type="checkbox"/>	
Pollutant Sources Near Air Intake	 ▼						

Observations

Walls dirty / stained at and above vinyl base - Flooring dirty stained - Surfaces dusty - Bookcases dirty - 35 gallon trash can under ceiling mounted A/C unit full of condensate water - No filters installed in unit - Floor and table under unit wet - Humidity Elevated - CO2 Elevated

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean ALL surfaces	▼
Thoroughly clean and sanitize flooring	▼
Clean dust / debris from wall surfaces	▼
Clean water from floor and table	▼
Empty trash can full of water	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Evaluate and repair HVAC system as needed	▼
Repair HVAC to Reduce Humidity Levels	▼
Repair HVAC to reduce CO2	▼
Repair HVAC unit to stop condensation leak	▼
	▼
	▼
	▼
	▼

IAQ Assessment

Gulfstream Academy

Evaluation Date December 19, 2016

Time of Day 9:30 AM

Outdoor Conditions Temperature 81.3

Relative Humidity 89.9

Ambient CO2 446

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
132	77.7	72 - 78	70.6	30% - 60%	1686	MAX 700 > Ambient	22
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Walls		Floor			
No		No		No			
2' X 4' Lay in		Plaster		12" x 12" Vinyl			
No		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	Yes
Flooring Clean	No	Ceiling at Supply Grills Clean	No		
Room Surfaces Clean	No				

Trash Removed	Yes	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests	No	Drain Traps Wet	N/A	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	Ceiling Mounted Unit	Mechanical Room Clean	N/A
Filters Installed Properly	N/A	Filters Clean	N/A
Condensate Pan Clean	N/A	Cooling Coil Clean	N/A

Fresh Air Intake Location	Unknown	Fresh Air Intake Free of Obstruction	
Pollutant Sources Near Air Intake			

Observations

Flooring dirty stained - Surfaces dusty - Ceiling missing under A/C unit - Humidity Elevated - CO2 Elevated

- Corrective Actions to be Completed by Site Based Staff**
- | | |
|--|---|
| Thoroughly clean and sanitize flooring | ▼ |
| Thoroughly clean ALL surfaces | ▼ |
| Clean Supply Grills with Wexcide | ▼ |
| Clean HVAC Return Grill with Wexcide | ▼ |
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| | ▼ |
| | ▼ |
| | ▼ |

- Corrective Actions to be Completed by PPO**
- | | |
|---|---|
| Replace missing ceiling @ HVAC Unit | ▼ |
| Evaluate and repair HVAC system as needed | ▼ |
| Repair HVAC to Reduce Humidity Levels | ▼ |
| Repair HVAC to reduce CO2 | ▼ |
| | ▼ |
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IAQ Assessment

Gulfstream Academy

Evaluation Date December 19, 2016

Time of Day 9:30 AM

Outdoor Conditions Temperature 81.3

Relative Humidity 89.9

Ambient CO2 446

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
192	74.6	72 - 78	71.3	30% - 60%	641	MAX 700 > Ambient	20
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Walls		Floor			
2' X 4' Lay in		Plaster		12" x 12" Vinyl		3 Square Feet	
No		Yes		No		10 Square Feet	
No		No		No		No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	No
Walls Clean	No	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
Flooring Clean	No	Ceiling at Supply Grills Clean	No		
Room Surfaces Clean	No				

Trash Removed	Yes	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests	No	Drain Traps Wet	No	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	Ceiling Mounted Unit	Mechanical Room Clean	N/A
Filters Installed Properly	N/A	Filters Clean	N/A
Condensate Pan Clean	N/A	Cooling Coil Clean	N/A
		Inside of HVAC Unit Clean	N/A

Fresh Air Intake Location	Unknown ▼	Fresh Air Intake Free of Obstruction	<input type="checkbox"/>
Pollutant Sources Near Air Intake	 ▼		

Observations

Art Room - Walls dirty / stained at and above vinyl base - Flooring dirty stained - Surfaces dusty - Shelves / Cabinets dirty - 2 cabinets with minor microbial growth - Stained ceiling tile under Front A/C unit - Light fixtures and ceiling in front of A/C units dirty / dusty - 5 sinks all traps dry - sign on sinks that they leak - cabinets water damaged, drains leaking - 2 Ceiling tiles missing - Humidity Elevated.

Corrective Actions to be Completed by Site Based Staff

Replace broken / missing ceiling tiles	▼
Thoroughly clean ALL surfaces	▼
Clean dust / debris from wall surfaces	▼
Thoroughly clean and sanitize flooring	▼
Clean shelves and cabinets with wexcide	▼
Clean ceilings around HVAC supply grills	▼
Clean Supply Grills with Wexcide	▼
Clean HVAC Return Grill with Wexcide	▼

Corrective Actions to be Completed by PPO

Evaluate and repair HVAC system as needed	▼
Repair HVAC to Reduce Humidity Levels	▼
Evaluate and repair cause of stained ceiling tile	▼
Remove and replace stained ceiling tiles	▼
Repair all sink traps / Repair all sinks to operate	▼
Repair water damaged sink cabinets	▼
	▼
	▼