

managing risk with responsibility

Aston A. Henry, Dired	ctor
Risk Management Dep	partment

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August 14, 2	014 Signature on File	For Custodial Supervisor Use Only
TO:	Janice Crosby, Principal Flamingo Elementary School	Custodial Issues Addressed Custodial Issues Not Addressed
FROM:	Richard Rosa, Project Manager Risk Management Department	
SUBJECT:	Indoor Air Quality (IAQ) Assessment	

On August 6, 2014, I conducted an assessment at **Flamingo 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 754-321-1907.

cc: Shelley Meloni, Executive Director, Facilities & Construction Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division Roy Norton, Manager, Custodial/Grounds, Physical Plant Operations Division Aston Henry, Director, Risk Management Sonja Coley, Senior Project Manager, Facilities & Construction Broward Teachers Union Federation of Public Employees

RR/tc Enc.

	IAQ Asses	sment		
Fla	mingo Elementary Evaluation D	Date August 6, 2014	Time of Day	10:30
Outdoor Conditions Te	emperature 85.4 Relativ	ve Humidity 66.3	Ambient CO2	427
FishTemperature172A82.		Range CO 80% - 60% 430		ccupants
Noticeable OdorYeCeilingDrywallWallsCeramic TileFloorCeramic Tile	e No	Visible microbial growth? No No No	Amount of material affected	
Ceiling CleanNoWalls CleanNoFlooring CleanNoRoom Surfaces CleanNo	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	No Yes No	HVAC Return Grills Clean Inside of Return Duct Clean	No Yes
Trash RemovedN/ASigns of PestsYesRoom ClutteredYes	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	t N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	Yes No
Mechanical Equipment Loc Filters Installed Properly Condensate Pan Clean	FISH 153 No Filters Clean Yes Cooling Coil Clean		Mechanical Room Clean Inside of HVAC Unit Clean	No Yes
Fresh Air Intake Location Pollutant Sources Near Air Intake Observations	Roof top No	▼▼	Fresh Air Intake Free of Obstruction	Yes

This room is a custodial closet with a slop sink, washer & dryer, Bag of organic soil and miracle grow potting soil and custodial equipment. The entire space needs cleaning. Mosquitos were in the space. I understand there is a roofing project underway and the schools resources are prioritized with roofing concerns first, identify ceiling/roof leaks replace ceiling tiles etc. This report is a tool used to identify indoor air quality concerns and provide recommendations for corrective action. Rooms 172A-E do not appear to be occupied by students or staff. Please address these concerns appropriately

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean entire space	•
Sweep mechanical room floor	▼
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	IAQ Assessr	nent		
Flaminç	go Elementary Evaluation Dat	e August 6, 2014	Time of Day 1	1:00
Outdoor Conditions Tempe	erature 85.4 Relative	Humidity 66.3	Ambient CO2 4	27
		Range CO ² % - 60% 442	Range # Oo MAX 700 > Ambient	ccupants
Noticeable Odor No Ceiling 2' X 4' Lay in	Visible water damage / staining?	Visible microbial growth? No	Amount of material affected	
Walls Plaster	No	No		
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean Yes Walls Clean Yes	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	Yes
Flooring Clean No	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
Room Surfaces No Clean	Ceiling at Supply Grills Clean	Yes		
Trash Removed N/A	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests Yes	Drain Traps Wet	N/A	Air Fresheners	No
Room Cluttered Yes	Food if Stored in Room is in Sealed Containers	N/A	in Room	
Mechanical Equipment Locatio	n FISH 153		Mechanical Room Clean	No
Filters Installed Properly	lo Filters Clean	No	Inside of HVAC Unit Clean	Yes
Condensate Pan Clean	es Cooling Coil Clean	Yes		
Fresh Air Intake Location	Roof top	▼	Fresh Air Intake Free	Yes
Pollutant Sources Near Air Intake	Νο	▼	of Obstruction	
Observations				

This room is used to store physical education equipment. The entire space needs cleaning. Mosquitos were in the space. I understand there is a roofing project underway and the schools resources are prioritized with roofing concerns first, identify ceiling/roof leaks replace ceiling tiles etc. This report is a tool used to identify indoor air quality concerns and provide recommendations for corrective action. Rooms 172A-E do not appear to be occupied by students or staff. Please address these concerns appropriately

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean entire space	▼
Sweep mechanical room floor	•
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Repair HVAC to reduce humidity level	▼
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	IAQ Assessr	ment	
Flam	ingo Elementary Evaluation Dat	e August 6, 2014	Time of Day 11:15
Outdoor Conditions Tem	perature 85.4 Relative	Humidity 66.3	Ambient CO2 427
FishTemperature172C72.3		Range CO ² % - 60% 462	Range # Occupants MAX 700 > Ambient
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling2' X 4' Lay inWallsPlasterFloor12" x 12" Vinyl	No No No	No No No	
Ceiling CleanYesWalls CleanYesFlooring CleanNo	HVAC Supply Grills Clean Inside of Supply Duct Clean	Yes	HVAC Return Grills Clean Yes Inside of Return Duct Clean Yes
Room Surfaces No Clean	Ceiling at Supply Grills Clean	Yes	
Trash Removed N/A Signs of Pests No	Exhaust Fans Working Drain Traps Wet	N/A	Unapproved Chemicals / Cleaners in Room
Room Cluttered Yes	Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners No in Room
Mechanical Equipment Locat	tion FISH 153		Mechanical Room Clean No
Filters Installed Properly	No Filters Clean	No	nside of HVAC Unit Clean Yes
Condensate Pan Clean	Yes Cooling Coil Clean	Yes	
Fresh Air Intake Location Pollutant Sources Near Air Intake	Roof top No	▼	Fresh Air Intake Free Yes
Observations			
The entire space needs cleaning. I understand there is a roofing project underway and the schools resources are			

prioritized with roofing concerns first, identify ceiling/roof leaks replace ceiling tiles etc. This report is a tool used to identify indoor air quality concerns and provide recommendations for corrective action. Rooms 172A-E do not appear to be occupied by students or staff. Please address these concerns appropriately

Corrective Actions to be Completed by Site Based Staff

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Thoroughly clean entire space	•
Sweep mechanical room floor	▼
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IAQ Assessment	
Flamingo Elementary Evaluation Date August 6, 2014	Time of Day 11:30
Outdoor Conditions Temperature 85.4 Relative Humidity 66.3	Ambient CO2 427
FishTemperatureRangeRelative HumidityRangeCC172D72.672 - 7864.030% - 60%462	
Noticeable OdorNoVisible water damage / staining?Visible microbial growth?Ceiling2' X 4' Lay inYesNoWallsPlasterNoNoFloor12" x 12" VinylNoNo	Amount of material affected 2 ceiling tilestains
Ceiling CleanNoHVAC Supply Grills CleanYesWalls CleanYesInside of Supply Duct CleanYesFlooring CleanNoCeiling at Supply Grills CleanYes	HVAC Return Grills Clean Yes Inside of Return Duct Clean Yes
Trash RemovedNoExhaust Fans WorkingN/ASigns of PestsNoDrain Traps WetN/ARoom ClutteredNoFood if Stored in Room is in Sealed ContainersN/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room
Mechanical Equipment Location FISH 153 Filters Installed Properly No Filters Clean No Condensate Pan Clean Yes Cooling Coil Clean Yes	Mechanical Room Clean No Inside of HVAC Unit Clean Yes
Fresh Air Intake LocationRoof top▼Pollutant Sources Near Air IntakeNo▼	Fresh Air Intake Free Yes
Observations The entire space needs cleaning. Lunderstand there is a roofing project underway a	

The entire space needs cleaning. I understand there is a rooting project underway and the schools resources are prioritized with roofing concerns first, identify ceiling/roof leaks replace ceiling tiles etc. This report is a tool used to identify indoor air quality concerns and provide recommendations for corrective action. Rooms 172A-E do not appear to be occupied by students or staff. Please address these concerns appropriately

Corrective Actions to be Completed by Site Based Staff

Thoroughly clean entire space	▼
Replace stained ceiling tiles after repairs	▼
Sweep mechanical room floor	▼
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Repair HVAC to reduce humidity level	▼
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	IAQ Assessr	nent		
Flamingo	Elementary Evaluation Date	e August 6, 2014	Time of Day 1	1:45
Outdoor Conditions Tempera	ature 85.4 Relative	Humidity 66.3	Ambient CO2 4	27
		Range CO ² % - 60% 478	Range # Oo MAX 700 > Ambient	ccupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' X 4' Lay in Walls Plaster	No No	No		
Floor Carpet	No	No		
Ceiling CleanYesWalls CleanYes	HVAC Supply Grills Clean Inside of Supply	Yes	HVAC Return Grills Clean Inside of Return	N/a
Flooring CleanNoRoom SurfacesNoCleanNo	Duct Clean Ceiling at Supply Grills Clean	No	Duct Clean	<u>N/A</u>
Trash Removed N/A	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of PestsNoRoom ClutteredYes	Drain Traps Wet Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location	FISH 153		Mechanical Room Clean	No
Filters Installed Properly No	Filters Clean	No	nside of HVAC Unit Clean	Yes
Condensate Pan Clean Yes	Cooling Coil Clean	Yes		
Fresh Air Intake Location Pollutant Sources Near Air Intake	Roof top No	▼	Fresh Air Intake Free of Obstruction	Yes
Observations				
The entire space needs cleaning	j. i understand there is a roofing	g project underway and	i the schools resources a	are

prioritized with roofing concerns first, identify ceiling/roof leaks replace ceiling tiles etc. This report is a tool used to identify indoor air quality concerns and provide recommendations for corrective action. Rooms 172A-E do not appear to be occupied by students or staff. Please address these concerns appropriately. There is no HVAC return in this room

Corrective Actions to be Completed by Site Based Staff

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No HVAC return in room	▼
Repair HVAC to reduce humidity level	▼
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	IAQ Asses	ssment	
Fla	mingo Elementary Evaluation I	Date August 6, 2014	Time of Day 12:15
Outdoor Conditions Te	emperature 85.4 Relat	ive Humidity 66.3	Ambient CO2 427
FishTemperature172F75.0		Range CO ² 30% - 60% 471	
Noticeable Odor Noticeable Odor Noticeable Odor	staining?	Visible microbial growth? No	Amount of material affected
Walls Plaster		No	
Floor Carpet/Wood	d No	No	
Ceiling Clean No Walls Clean Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean N/a
Flooring Clean No	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean N/A
Room Surfaces No Clean	Ceiling at Supply Grills Clean	y No	
Trash Removed N/A	Exhaust Fans Working	g N/A	Unapproved Chemicals / Cleaners in Room No
Signs of Pests No] Drain Traps We	et N/A	
Room Cluttered Yes	Food if Stored in Room in Sealed Containers	is N/A	Air Fresheners No
Mechanical Equipment Loc	cation FISH 153		Mechanical Room Clean No
Filters Installed Properly	No Filters Clean	Νο	Inside of HVAC Unit Clean Yes
Condensate Pan Clean	Yes Cooling Coil Clear	n Yes	
Fresh Air Intake Location	Roof top	▼	Fresh Air Intake Free Yes
Pollutant Sources Near Air Intake	Νο	▼	
Observations			
This room is a custodial o	ffice. The ceiling grid is rusted and	accumulated with dust.	The entire space needs cleaning.

I his room is a custodial office. The ceiling grid is rusted and accumulated with dust. The entire space needs cleaning. I understand there is a roofing project underway and the schools resources are prioritized with roofing concerns first, identify ceiling/roof leaks replace ceiling tiles etc. This report is a tool used to identify indoor air quality concerns and provide recommendations for corrective action. Please address these concerns appropriately.

Corrective Actions to be Completed by Site Based Staff

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Repair HVAC to reduce humidity level	▼
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