

## managing risk with responsibility

Aston A. Henry, Supervisor Risk Management Department

754 321-1900 Telephone: Fax:

754 321-1917

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October 25, 201	2 Signature on File	For Custodial Supervisor Use Only
TO:	Cyntheria Hunt, Principal	Custodial Issues Addressed
	Broward Estates Elementary School	Custodial Issues Not Addressed
FROM:	Robert Krickovich, Coordinator I, LEA Facilities Design and Construction	
SUBJECT:	Indoor Air Quality (IAQ) Assessment	

On October 22, 2012, I conducted an assessment at Broward Estates 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.

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

RK/tc Enc.

	IAQ Assessme	ent		
Broward Estates Elem	entary Evaluation Date	October 22, 2012	Time of Day	1:45
Outdoor Conditions Temperature	84.5 Relative H	Humidity 46.1	Ambient CO2 4	59
FishTemperatureRangeAdmin72 - 78		ange <u>CO</u> - 60%	<sup>2</sup> Range # O MAX 700 > [ Ambient	ccupants
Noticeable Odor Yes Ceiling Walls Floor	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling Clean	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean		HVAC Return Grills Clean Inside of Return Duct Clean	
Trash Removed Signs of Pests Room Cluttered	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers		Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	
Mechanical Equipment Location	Filters Clean Cooling Coil Clean		Mechanical Room Clean Inside of HVAC Unit Clean	
Fresh Air Intake Location Pollutant Sources Near Air Intake		▼ ▼	Fresh Air Intake Free of Obstruction	
Observations				
Musty odor in admin offices of buildin	ng 1.			

## Corrective Actions to be Completed by Site Based Staff

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Clean A/C units servicing admin area	▼
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	IAQ Asse	essment	
Broward Est	ates Elementary Evaluation	n Date October 22, 2012	Time of Day 11:45
Outdoor Conditions Tem	nperature 84.5 Rela	ative Humidity 46.1	Ambient CO2 459
FishTemperature70175.3	RangeRelative Humidity72 - 7839.9	Range         CO           30% - 60%         107	
Noticeable Odor Yes	Visible water damage staining?	/ Visible microbial growth?	Amount of material affected
Ceiling     2' X 4' Lay in       Walls     Plaster       Floor     12" x 12" Vinyl	No Yes	No Yes	30 Sq ft damage 3" microbial
Ceiling Clean Yes Walls Clean Yes Flooring Clean Yes	No HVAC Supply Grills Clean Inside of Supp Duct Clean	Yes Iy Yes	HVAC Return Grills Clean No Inside of Return Duct Clean No
Room Surfaces Yes	Ceiling at Sup Grills Clean	ply N/a	
Trash RemovedYesSigns of PestsNoRoom ClutteredNo	Exhaust Fans Worki Drain Traps V Food if Stored in Roor in Sealed Containers	Vet N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room
Mechanical Equipment Loca Filters Installed Properly Condensate Pan Clean			Mechanical Room Clean N/A Inside of HVAC Unit Clean N/A
Fresh Air Intake Location Pollutant Sources Near Air Intake	Outside of Room Grass / Trees	<ul> <li>▼</li> <li>▼</li> </ul>	Fresh Air Intake Free Yes
Observations Musty odor in room - Visible	e water damage both sides of fl	oor mounted fan coil unit	- One small area 3" long by 1/2 "
			ned and source of water damage

repaired - Replace all water damaged wall material

Corrective Actions to be Completed by Site Based Staff

Clean visible microbial from right side of unit	▼
Clean HVAC return grills with Wexcide	▼
	▼
	▼
	▼
	▼
	▼
	▼

▼	Clean inside of HVAC Unit
age 🔻	Evaluate and repair cause of water dam
ssary <b>▼</b>	Remove and replace wall material as nec
▼	Caulk all windows in building
▼	
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	IAQ Assessn	nent		
Broward Estates	Elementary Evaluation Date	e October 22, 2012	Time of Day	1:45
Outdoor Conditions Tempera	rature 84.5 Relative	Humidity 46.1	Ambient CO2 45	59
		Range         CO <sup>2</sup> % - 60%         746		ccupants 12
Noticeable Odor Yes	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' X 4' Lay in Walls Plaster	No Yes	No	6 Sq feet	
Floor 12" x 12" Vinyl	No	No		
Ceiling CleanYesWalls CleanYesFlooring CleanYesRoom SurfacesYes	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply	Yes	HVAC Return Grills Clean Inside of Return Duct Clean	No No
Clean	Grills Clean	N/a		
Trash RemovedNoSigns of PestsNoRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is	N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No
	in Sealed Containers			
Mechanical Equipment Location Filters Installed Properly N/A Condensate Pan Clean N/A	A Filters Clean	N/A N/A	Mechanical Room Clean	N/A N/A
Fresh Air Intake Location Pollutant Sources Near Air Intake	Outside of Room Grass / Trees	▼	Fresh Air Intake Free of Obstruction	Yes
Observations				
	ble water damage left side of floo mage repaired - Replace all wate			ved and

Corrective Actions to be Completed by Site Based Staff

Be sure to remove all trash and food at the end of	▼
the day	▼
Clean HVAC return grills with Wexcide	▼
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Clean inside of HVAC Unit	
e and repair cause of water damage	Evalu
nd replace wall material as necessary	Remove
aulk all windows in building	
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▼	
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	IAQ Assess	sment	
Broward Es	states Elementary Evaluation D	ate October 22, 2012	Time of Day 11:45
Outdoor Conditions Te	mperature 84.5 Relativ	ve Humidity 46.1	Ambient CO2 459
FishTemperature70472.1		Range         CO           0% - 60%         923	
Noticeable OdorNoticeable OdorCeiling2' X 4' Lay inWallsPlasterFloor12" x 12" Viny	staining?	Visible microbial growth? No Yes No	Amount of material affected One tile over cabinett 60 Sq Ft Damage 6" microbial
Ceiling CleanYesWalls CleanYesFlooring CleanYesRoom SurfacesYesCleanYes	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	Yes Yes N/a	HVAC Return Grills Clean No Inside of Return Duct Clean No
Trash RemovedYesSigns of PestsNoRoom ClutteredNo	Exhaust Fans Working Drain Traps Wet Food if Stored in Room is in Sealed Containers	Yes	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room
Mechanical Equipment Loc Filters Installed Properly Condensate Pan Clean	Floor Mounted in Room         N/A       Filters Clean         N/A       Cooling Coil Clean	N/A N/A	Mechanical Room Clean N/A Inside of HVAC Unit Clean N/A
Fresh Air Intake Location Pollutant Sources Near Air Intake	Outside of Room Grass / Trees	<ul><li>▼</li><li>▼</li></ul>	Fresh Air Intake Free Yes Yes
Observations Visible water damage both	sides of floor mounted fan coil uni	it - One small area of in	sulation visible through hole in

wall has small amount of black spots - may be microbial growth right side of unit - Unit needs to be removed and cleaned and source of water damage repaired - Replace all water damaged wall material

HFSP states previous work orders called in - walls repaired but cause never addressed - damage returns

Corrective Actions to be Completed by Site Based Staff

Clean HVAC return grills with Wexcide	▼
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IVAC Unit	Clean inside of H
e of water damage	Evaluate and repair cause
aterial as necessary	Remove and replace wall m
in building 🛛 🔻	Caulk all windows
▼	
▼	
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