

managing risk with responsibility

Aston A. Henry, Supervisor Telephone: 754 321-1900 Risk Management Department Fax: 754 321-1917

September 20, 2	2012 Signature on Fil	For Custodial Supervisor Use Only
TO:	Heather Hedman-DeVaughn, Principal Manatee Bay Elementary School	Custodial Issues Addressed Custodial Issues Not Addressed
FROM:	Richard Rosa, Project Manager Facilities Design and Construction	
SUBJECT:	Indoor Air Quality (IAQ) Assessment	

On September 12, 2012, I conducted an assessment at **Manatee Bay 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: Directors, School Performance & Accountability
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

RR/tc Enc.

Manatee Bay	Elementary Evaluation Date	September 12, 2012	Time of Day 10:30
Outdoor Conditions Tempera	ture 81.5 Relative	Humidity 78.1	Ambient CO2 413
		Range CO ² 673	Range # Occupants MAX 700 > Ambient
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling 2' x 4'	Yes	No	1 stain < 1 sq ft
Walls Drywall	No	No	
Floor Carpet	Yes	No	stains are from spills
Ceiling Clean No	HVAC Supply Grills Clean	No	HVAC Return Grills Clean
Walls 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	No	
Trash Removed Yes	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room
Signs of Pests No	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 Location	FISH 101M		Mechanical Room Clean Yes
Filters Installed Properly No	Filters Clean	No	nside of HVAC Unit Clean Yes
Condensate Pan Clean Yes	Cooling Coil Clean	No	
Fresh Air Intake Location	Thru exterior wall	▼	Fresh Air Intake Free Yes
Pollutant Sources Near Air Intake	Student Drop Off Drive	▼	of Obstruction
Observations			
The carpet has various staining supply grills. This area is the Me two coils in this unit, one was re	dia Center, it is difficult to dus	t properly - books and I	behind book shelves. There are

Corrective Actions to be Completed by Site Based Staff

Controlled to be completed by the Bussa of	
Replace stained ceiling tile after repair	▼
Clean cobwebs from low corners	▼
Clean HVAC supply grills with Wexcide	▼
Clean ceilings around HVAC supply grills	▼
Remove and replace A/C filters and date properly	
Thoroughly clean stained carpet	
	▼
	▼

Corrective Actions to be Completed by PPO

Corrective Actions to be completed by 1.1.6	
Evaluate and repair cause of stained ceiling tiles	▼
Clean HVAC coil	▼
	▼
	▼
	▼
	▼
	▼
	▼

Manatee Bay	Elementary Evaluation Date	September 12, 2012	Time of Day 1	:15
Outdoor Conditions Tempera	ture 81.5 Relative	Humidity 78.1	Ambient CO2 41	3
		Range CO ² 442	Range # Oc MAX 700 > Ambient	cupants 0
Noticeable Odor Yes	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling Homasote	No	No		
Walls Homasote	Yes	No	80 sq ft	
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean No Walls Clean No	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	No
Flooring Clean Yes	Inside of Supply Duct Clean	N/A	Inside of Return Duct Clean	N/A
Room Surfaces No Clean	Ceiling at Supply Grills Clean	N/a		
Trash Removed Yes	Exhaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests Yes	Drain Traps Wet	N/A	Air Frankanara	- Na
Room Cluttered No	Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location	Window unit		Mechanical Room Clean	N/A
Filters Installed Properly No	Filters Clean	No	nside of HVAC Unit Clean	N/A
Condensate Pan Clean N/A	Cooling Coil Clean	No		
Fresh Air Intake Location	Window unit	▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Standing water at time of ass	essment ▼	or Obstruction	
Observations				
This portable is unoccupied. Sur	nmer cleaning needed. Evalua	ate the exterior		

This portable is unoccupied. Summer cleaning needed. Evaluate the exterior

t-111 for water damage on North wall. Evaluate the interior water damaged wall system under both Window HVAC units. Insects are visible around the damaged wall system by North HVAC window unit. Remove interior marker boards and tack boards adjacent to window units and evaluate the wall system for water intrusion. The floor is buckling, evaluate the entire floor. Wipe drip stains on walls with wexcide, the stains were dry at the time of assessment.

Corrective Actions to be Completed by Site Based Staff

Contestive Actions to be completed by the Buseu of	
Classroom is due for a summer cleaning	▼
Vacuum/Wexcide window unit grills	▼
Wipe down walls with Wexcide	▼
	▼
Generate a work order for pest control	▼
Remove and replace A/C filters and date properly	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Clean both window unit coils	▼
Evaluate and repair cause of water damage	▼
to wall material	▼
Remove and replace wall material as necessary	▼
Evaluate floor	▼
See observations above for additional info	▼
	▼
	▼

Manatee Bay Elementary Eva	uation Date Se	ptember 12, 201	2 Time of Day	12:15
Outdoor Conditions Temperature 81.5	Relative Hum	dity 78.1	Ambient CO2	413
Fish Temperature Range Relative Hun QP1386C 78.2 72 - 78 60.6	nidity Range	111		22
Noticeable Odor No Visible water da staining?	illiage /	ible microbial growth?	Amount of material affected	
Ceiling 2' x 4' No		No		
Walls Paneling/tackboard No		No		
Floor 12" x 12" Vinyl No		No		
Ceiling Clean No HVAC Su Grills Clean			HVAC Return Grills Clean	No
Walls Clean No Inside of Plooring Clean No Duct Cle		A	Inside of Return Duct Clean	N/A
Room Surfaces No Ceiling a Grills Clean	· · · · · · · · · · · · · · · · · · ·	s		
Trash Removed Yes Exhaust Fans	Working Ye	s	Unapproved Chemicals /	No
Signs of Pests No Drain T	raps Wet N/	A		
Room Cluttered No Food if Stored in Sealed Contain	NI/	A	Air Fresheners in Room	No
Mechanical Equipment Location Bard like HVAC syst	em in classrooi	n	Mechanical Room Clean	N/A
Filters Installed Properly No Filte	rs Clean No		Inside of HVAC Unit Clean	N/A
Condensate Pan Clean N/A Cooling Co	oil Clean N/	A		
Fresh Air Intake Location Behind Bard unit/Ex	terior wall	▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake Standing water at til	ne of assessme	nt ▼		
Observations				
This portable is occupied. Cobwebs on walls and ceil				
end of the floor is buckling, evaluate the entire floor. i collapsed.	nstall the HVAC	filter properly	into the return. I ne liliter	nas
Corrective Actions to be Completed by Site Based St	aff	Corrective Action	ons to be Completed by P	PO
Classroom is due for a summer cleaning	▼		te the HVAC coil	▼
Vacuum HVAC return grills Ensure thermostat is set to 72 degrees and monitor	▼	Eva	luate flooring	▼
Clean HVAC supply grills with Wexcide	▼			▼
		·		

Remove and replace A/C filters and date properly

Manatee Bay Elem	entary Evaluation Dat	September 12, 2012	Time of Day1	1:45
Outdoor Conditions Temperature	81.5 Relative	Humidity 78.1	Ambient CO2 41	13
Fish Temperature Range QP1388 70.7 72 - 78		Range <u>co</u> ² % - 60 %		cupants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' x 4' Walls Paneling/tackboard	No Yes	No No	North wall	
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean No Walls Clean No Flooring Clean No	HVAC Supply Grills Clean Inside of Supply Duct Clean	No N/A	HVAC Return Grills Clean Inside of Return Duct Clean	No N/A
Room Surfaces No Clean	Ceiling at Supply Grills Clean	Yes		
Trash Removed Yes	Exhaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No Room Cluttered No	Drain Traps Wet Food if Stored in Room is in Sealed Containers	N/A	Air Fresheners in Room	No
Mechanical Equipment Location Bare	d like HVAC system in clas	ssroom	Mechanical Room Clean	N/A
Filters Installed Properly No	Filters Clean	No	Inside of HVAC Unit Clean	N/A
Condensate Pan Clean N/A	Cooling Coil Clean	N/A		
Pollutant Sources Near Air	ind Bard unit/Exterior wal		Fresh Air Intake Free of Obstruction	Yes
Observations	Tuning mater at time of acce			
This portable is unoccupied. Cobweb Southwest corner of the floor is buck filter has collapsed.				
Corrective Actions to be Completed	by Site Based Staff	Corrective Actio	ns to be Completed by PP	0
Classroom is due for a summe			e the HVAC coil	
Vacuum HVAC return gr	 	Eval	uate flooring	▼
Ensure thermostat is set to 72 degree				
Clean HVAC supply grills with	Wexcide ▼			▼

Remove and replace A/C filters and date properly

Manatee Bay Elementary	Evaluation Da	te September 12, 201	2 Time of Day	11:15
Outdoor Conditions Temperature	31.5 Relative	e Humidity 78.1	Ambient CO2	113
Fish Temperature Range P-1390C 69.6 72 - 78	Relative Humidity 62.2 30	Range CC 40.		ccupants
Notificable Suci.	ible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' x 4' Walls Paneling/tackboard	No No	No No		
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean No Walls Clean No	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	No
Flooring Clean No	Inside of Supply Duct Clean	N/A	Inside of Return Duct Clean	N/A
Room Surfaces No Clean	Ceiling at Supply Grills Clean	Yes		
	khaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests Yes Room Cluttered Yes Food	Drain Traps Wet	N/A	Air Fresheners	No
	ealed Containers	N/A	in Room	
Mechanical Equipment Location Bard like	HVAC system in cla	ssroom	Mechanical Room Clean	N/A
Filters Installed Properly Yes	Filters Clean	Yes	Inside of HVAC Unit Clean	N/A
Condensate Pan Clean N/A	Cooling Coil Clean	N/A		
Fresh Air Intake Location Behind B	ard unit/Exterior wa	II ▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake Standing	water at time of ass	sessment v		
Observations This portable is unoccupied. Cobwebs on	walls and soilings. F	Evaluate whether the l	JVAC coil poods clooping	
This portable is unoccupied. Cobwebs on	wans and cennigs. I	evaluate whether the i	TVAC con needs cleaning.	
Corrective Actions to be Completed by Sit Classroom is due for a summer clea			ons to be Completed by Pate the HVAC coil	PO ▼
Vacuum HVAC return grills	g ·	Lvalue		
Ensure thermostat is set to 72 degrees ar	nd monitor ▼			▼
Clean HVAC supply grills with Wex				▼
Generate a work order for pest con	trol ▼			▼
				▼

Manatee Bay E	<u>Evaluation Da</u>	September 12, 2012	Time of Day12	2:45
Outdoor Conditions Temperat	ure 81.5 Relative	e Humidity 78.1	Ambient CO2 4	13
Fish Temperature Ran QP381 74.1 72 -	[40.4	Range CO ² 9% - 60% 429	Range # Oc MAX 700 > Ambient	cupants 0
Noticeable Odor Yes	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling homasote	Yes	No	15 sq ft	
Walls Homasote	Yes	No	32 sq ft	
Floor 12" x 12" Vinyl				
12 X 12 VIIIyI	No	No_		
Ceiling Clean No	HVAC Supply Grills Clean	No	HVAC Return Grills Clean	No
Walls Clean No Flooring Clean Yes	Inside of Supply Duct Clean	N/A	Inside of Return Duct Clean	N/A
Room Surfaces No Clean	Ceiling at Supply Grills Clean	N/a		
Trash Removed Yes	Exhaust Fans Working	Yes	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests Yes	Drain Traps Wet	N/A	Air Fresheners	Na
Room Cluttered No	Food if Stored in Room is in Sealed Containers	N/A	in Room	No
Mechanical Equipment Location	Window unit		Mechanical Room Clean	N/A
Filters Installed Properly No	Filters Clean	No	Inside of HVAC Unit Clean	N/A
Condensate Pan Clean N/A	Cooling Coil Clean	No		
Fresh Air Intake Location	Window unit	▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Standing water at time of ass	sessment v	or obstruction	
Observations				
This portable is unoccupied. Sum t-111 for water damage on North Insects are visible around the dar	wall. Evaluate the water dam	aged wall system unde		

Corrective Actions to be Completed by Site Based Staff

Corrective Actions to be Completed by Cite Buccu Ci	
Classroom is due for a summer cleaning	▼
Vacuum/wexcide window unit grills	▼
	▼
	▼
Generate a work order for pest control	▼
Remove and replace A/C filters and date properly	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Corrective Actions to be completed by 11 C	
Clean both window unit coils	▼
Evaluate and repair cause of water damage	▼
to wall material	▼
Remove and replace wall material as necessary	▼
See observations above for additional info	▼
	▼
	▼
	▼