

managing risk with responsibility

754 321-1900

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August 28, 2012

Signature on File

TO: Kathryn Sullivan, Principal

Silver Lakes Middle School

FROM: Richard Rosa, Project Manager

Facilities Design and Construction

SUBJECT: Indoor Air Quality (IAQ) Assessment

<u>Fo</u>	or Custodial Supervisor Use Only
	Custodial Issues Addressed
	Custodial Issues Not Addressed

On August 23, 2012, I conducted an assessment at Silver Lakes Middle 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

RR/tc Enc.

SI	iver Lakes I	<u>/liddle</u> Evalua	ation Da	August 2	3, 2012	Time of Day	1:40
Outdoor Conditions Ter	mperature	90.6	Relativ	e Humidity	56.8	Ambient CO2 4	26
Fish Temperature 304 72.1	Range 72 - 78	Relative Humio	– i	Range 0% - 60%	CO ² 452	Range # O MAX 700 > Ambient	ccupants
Noticeable Odor No		Visible water dam staining?	age /	Visible mici growth		Amount of material affected	
Ceiling 2' x 4'		No		No]		
Walls Drywall		No		No]		
Floor 12" x 12" Vinyl		No		No]		
Ceiling Clean Yes Walls Clean Yes		HVAC Sup Grills Clea		Yes		HVAC Return Grills Clean	Yes
Flooring Clean Yes		Inside of S Duct Clean		Yes		Inside of Return Duct Clean	Yes
Room Surfaces No Clean		Ceiling at S Grills Clea		Yes			
Trash Removed Yes		Exhaust Fans W	orking	N/A		Unapproved Chemicals / Cleaners in Room	No
Signs of Pests No		Drain Tra	ps Wet	N/A		Air Fresheners	No
Room Cluttered No		Food if Stored in R in Sealed Containe		N/A		in Room	[140]
Mechanical Equipment Loca	ation FISH	I 306				Mechanical Room Clean	Yes
Filters Installed Properly	Yes	Filters	Clean	Yes	ı	nside of HVAC Unit Clean	Yes
Condensate Pan Clean	Yes	Cooling Coil	Clean	Yes			
Fresh Air Intake Location	Ove	r top of exterior m	echani	ical room door	▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Tree	s at same elevation	on as ir	ntake	▼	or obstruction	
Observations							
One chiller running due to Supply chilled water temp.		_	llers.				
Return chilled water temp.	62 Degrees	S		*		de constant de la con	41
Exterior walkway outside roleaks. Evaluate insulating o		•		oing condensati	ion. Scuti	tle access is adjacent to	tne
Corrective Actions to be C	ompleted b	y Site Based Staf	f	Correcti	ve Action	s to be Completed by Pi	<u> </u>
Thoroughly clean	elevated s	urfaces	▼			reduce humidity level	▼
			▼	Evaluate insu	ulating du	ictwork above plaster ce	iling ▼
		1 '	* I	i			▼

Silver Lakes Middle Eva	luation Date August 23, 2012	Time of Day 1:15			
Outdoor Conditions Temperature 90.6	Relative Humidity 56.8	Ambient CO2 426			
Fish Temperature Range Relative Hur 305 73.0 72 - 78 67.6	30% - 60% CC				
Noticeable Odor No Visible water da staining? Ceiling 2' x 4' No Walls Drywall Floor 12" x 12" Vinyl No Ceiling Clean Yes Walls Clean Yes Inside of Duct Cle	growth? No No No No No Supply ean No Supply Ves	Amount of material affected HVAC Return Grills Clean No Inside of Return Duct Clean Yes			
Room Surfaces Yes Ceiling a Clean Grills Cle	ean Yes				
Trash Removed Yes Exhaust Fans Signs of Pests No Drain T Room Cluttered No Food if Stored in Sealed Contain	raps Wet N/A	Unapproved Chemicals / No Cleaners in Room Air Fresheners in Room			
Mechanical Equipment Location FISH 306 Filters Installed Properly Yes Filte Condensate Pan Clean Yes Cooling Co	rs Clean Yes oil Clean Yes	Mechanical Room Clean Yes Inside of HVAC Unit Clean Yes			
Fresh Air Intake Location Pollutant Sources Near Air Intake Over top of exterior Trees at same eleva	mechanical room door ▼ tion as intake ▼	Fresh Air Intake Free of Obstruction			
Observations One chiller running due to maintenance working on chillers. Supply chilled water temp. 47 Degrees Return chilled water temp. 62 Degrees					
Corrective Actions to be Completed by Site Based St		ons to be Completed by PPO			
Clean HVAC supply grills with Wexcide Vacuum HVAC return grills	Repair HVAC Repair HVAC	to reduce humidity level ▼ ▼ ▼			

Silver La	kes Middle Evaluation Dat	te August 23, 2012	_ Time of Day 2:45	5
Outdoor Conditions Tempera	ture 90.6 Relative	e Humidity 56.8	Ambient CO2 426	
		Range CO ² 612	Range # Occu MAX 700 > Ambient	pants
Noticeable Odor No	Visible water damage / staining?	Visible microbial growth?	Amount of material affected	
Ceiling 2' x 4'	Yes	No	< 2 sq ft	
Walls Cloth/Drywall	No	No		
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean No Walls Clean Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Flooring Clean Yes	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	No
Signs of Pests No	Drain Traps Wet	N/A	Air Fresheners	No
Room Cluttered No	Food if Stored in Room is in Sealed Containers	N/A	in Room	
Mechanical Equipment Location	FISH 321		Mechanical Room Clean	Yes
Filters Installed Properly Yes	Filters Clean	Yes	Inside of HVAC Unit Clean	Yes
Condensate Pan Clean Yes	Cooling Coil Clean	Yes		
Fresh Air Intake Location	Over top of exterior mechanic	cal room door ▼	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	No	▼	or obstruction \sqsubseteq	
Observations				
One chiller running due to mainto Supply chilled water temp. 44 De Return chilled water temp. 52 De	grees			
High ceilings; this classroom wa	s once a band room.			
Hanging cloth panels need to be	cleaned or replaced.			
Corrective Actions to be Comple	eted by Site Based Staff	Corrective Action	ns to be Completed by PPO	

corrective Actions to be completed by one based stair			
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Install appropriate filter spacer in HVAC system	▼
Evaluate the need for cloth accoustical panels	▼
Evaluate and repair cause of stained ceiling tiles	▼
Set temperature to 72 - 78 degrees	▼
Repair HVAC to reduce humidity levelRepair HVAC to	▼
Corrective Actions to be completed by 110	

Silver Lakes Middle	Evaluation Da	August 23, 2012	Time of Day2	:25
Outdoor Conditions Temperature 90.	6 Relative	Humidity 56.8	Ambient CO2 42	26
Fish Temperature Range Rel 323 69.4 72 - 78	 i	Range <u>CO</u> % - 60% 566		cupants
Noticeable Odor No Visible Ceiling 2' x 4' Walls Cloth/Drywall	e water damage / staining? No	Visible microbial growth? No No	Amount of material affected	
Floor 12" x 12" Vinyl	No	No		
Ceiling Clean No Walls Clean Yes Flooring Clean Yes Room Surfaces No Clean	HVAC Supply Grills Clean Inside of Supply Duct Clean Ceiling at Supply Grills Clean	Yes Yes No	HVAC Return Grills Clean Inside of Return Duct Clean	Yes
Signs of Pests No Room Cluttered No Food if	ust Fans Working Drain Traps Wet Stored in Room is ed Containers	N/A N/A	Unapproved Chemicals / Cleaners in Room Air Fresheners in Room	No No
Mechanical Equipment Location FISH 321 Filters Installed Properly Yes Condensate Pan Clean Yes	Filters Clean	Yes Yes	Mechanical Room Clean Inside of HVAC Unit Clean	Yes Yes
Fresh Air Intake Location Pollutant Sources Near Air Intake No	exterior mechanio	cal room door ▼	Fresh Air Intake Free of Obstruction	Yes
Observations				
One chiller running due to maintenance work Supply chilled water temp. 44 Degrees Return chilled water temp. 52 Degrees	ing on chillers.			
Corrective Actions to be Completed by Site I	Based Staff	Corrective Action	ons to be Completed by PP	0
Clean ceilings around HVAC supply gri			o reduce humidity level	▼
Thoroughly clean elevated surfaces	▼	Set temperat	ure to 72 - 78 degrees	V

Thoroughly clean elevated surfaces	▼
	▼
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Repair HVAC to reduce humidity level	▼
Set temperature to 72 - 78 degrees	▼
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