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Risk Management Department

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September 14, 2012

Signature on File

TO: Daphene Watson, Principal
Park Ridge Elementary School

FROM: Robert Krickovich, Coordinator I, LEA
Facilities Design and Construction

SUBJECT: Indoor Air Quality (IAQ) Assessment

<u>For Custodial Supervisor Use Only</u>	
<input type="checkbox"/>	Custodial Issues Addressed
<input type="checkbox"/>	Custodial Issues Not Addressed

On September 13, 2012, I conducted an assessment at **Park Ridge 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

RK/tc
Enc.

IAQ Assessment

Park Ridge Elementary

Evaluation Date September 13, 2012

Time of Day 1:45

Outdoor Conditions Temperature 87.3 Relative Humidity 79.3 Ambient CO2 483

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
751	78.3	72 - 78	69.1	30% - 60%	870	MAX 700 > Ambient	2
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Walls		Floor			
No		2' X 2' Lay in		Drywall		12" x 12" Vinyl	
No		No		No		No	
Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No		
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	N/A		
Flooring Clean	Yes	Ceiling at Supply Grills Clean	Yes				
Room Surfaces Clean	Yes						
Trash Removed	Yes	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No		
Signs of Pests	No	Drain Traps Wet	Yes	Air Fresheners in Room	No		
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A				
Mechanical Equipment Location	FISH 750				Mechanical Room Clean	No	
Filters Installed Properly	Yes	Filters Clean	No		Inside of HVAC Unit Clean	N/A	
Condensate Pan Clean	N/A		Cooling Coil Clean	N/A			
Fresh Air Intake Location	Side of door to 750				Fresh Air Intake Free of Obstruction	Yes	
Pollutant Sources Near Air Intake	Oak Trees						

Observations

Humidity elevated

Exterior of both buildings cracked / blistered paint with water in blisters.

Walls of Mechanical room wet and water damaged with visible microbial growth under both fresh air grills

Condensate drain pans leaking

Corrective Actions to be Completed by Site Based Staff

Remove and replace A/C filters	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to reduce humidity level	▼
Evaluate and repair cause of water damage	▼
Replace damaged wall material in Mech Rooms	▼
in both buildings	▼
	▼
Repair building exterior paint and cracks	▼
	▼
	▼

IAQ Assessment

Park Ridge Elementary

Evaluation Date September 13, 2012

Time of Day 1:45

Outdoor Conditions Temperature 87.3 Relative Humidity 79.3 Ambient CO2 483

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
754	77.3	72 - 78	65.1	30% - 60%	868	MAX 700 > Ambient	2
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling		Walls		Floor			
No		2' X 2' Lay in		Drywall		12" x 12" Vinyl	
No		No		No		No	
Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	No		
Walls Clean		Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	N/A		
Flooring Clean	Yes	Ceiling at Supply Grills Clean	Yes				
Room Surfaces Clean	Yes						
Trash Removed	Yes	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No		
Signs of Pests	No	Drain Traps Wet	Yes	Air Fresheners in Room	No		
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A				
Mechanical Equipment Location	FISH 750				Mechanical Room Clean	No	
Filters Installed Properly	Yes	Filters Clean	No		Inside of HVAC Unit Clean	N/A	
Condensate Pan Clean	N/A	Cooling Coil Clean	N/A				
Fresh Air Intake Location	Side of door to 750				Fresh Air Intake Free of Obstruction	Yes	
Pollutant Sources Near Air Intake	Oak Trees						

Observations

Humidity elevated
 Exterior of both buildings cracked / blistered paint with water in blisters.
 Walls of Mechanical room wet and water damaged with visible microbial growth under both fresh air grills
 Condensate drain pans leaking
 Mechanical rooms in other building (765 & 768) have same water issues and will cause damage to those classrooms if not repaired. Repair HVAC units and walls of all 4 mechanical rooms.

Corrective Actions to be Completed by Site Based Staff

Remove and replace A/C filters	▼
	▼
	▼
	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Repair HVAC to reduce humidity level	▼
Evaluate and repair cause of water damage	▼
Replace damaged wall material in Mech Rooms	▼
in both buildings	▼
	▼
Repair building exterior paint and cracks	▼
	▼
	▼

IAQ Assessment

Park Ridge Elementary

 Evaluation Date September 13, 2012

 Time of Day 1:45

 Outdoor Conditions Temperature 87.3

 Relative Humidity 79.3

 Ambient CO2 483

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants
755	70.3	72 - 78	60.9	30% - 60%	867	MAX 700 > Ambient	2
Noticeable Odor		Yes	Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling	2' X 2' Lay in		Yes	Yes	7 tiles between windows		
Walls	Drywall		Yes	Yes	Walls at mechanical room		
Floor	12" x 12" Vinyl		No	No			
Ceiling Clean	Yes	HVAC Supply Grills Clean		Yes	HVAC Return Grills Clean		No
Walls Clean	Yes	Inside of Supply Duct Clean		Yes	Inside of Return Duct Clean		N/A
Flooring Clean	Yes	Ceiling at Supply Grills Clean		Yes			
Room Surfaces Clean	Yes						
Trash Removed	Yes	Exhaust Fans Working		N/A	Unapproved Chemicals / Cleaners in Room		No
Signs of Pests	No	Drain Traps Wet		Yes	Air Fresheners in Room		No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers		N/A			
Mechanical Equipment Location	FISH 758M					Mechanical Room Clean	No
Filters Installed Properly	Yes	Filters Clean		No	Inside of HVAC Unit Clean		N/A
Condensate Pan Clean	N/A	Cooling Coil Clean		N/A			
Fresh Air Intake Location	Side of door to 758M ▼					Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	Oak Trees ▼						

Observations

Musty odor in room - wall at mechanical room wet up 12" with visible microbial growth at base board - Carpet in room wet at mechanical room walls - Water stained ceiling tiles and wall between window (roof drain leak) - Back splash needs caulk. - Exterior of both buildings cracked / blistered paint with water in blisters.

Walls of Mechanical room wet and water damaged with visible microbial growth under both fresh air grills - 1" standing water on mechanical room floor running into classrooms 755 & 758

Condensate drain pans leaking

Corrective Actions to be Completed by Site Based Staff

Clean and dry carpet by mechanical room	▼
Move from area until repairs are made	▼
	▼
Remove and replace A/C filters	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Remove cabinets from window wall	▼
Replace water damaged wall material	▼
Replace water damaged ceiling tiles	▼
Evaluate and repair cause of water damage	▼
Replace damaged wall material in Mech Room	▼
in both buildings	▼
Repair building exterior paint and cracks	▼
	▼

IAQ Assessment

Park Ridge Elementary

 Evaluation Date September 13, 2012

 Time of Day 1:45

 Outdoor Conditions Temperature 87.3

 Relative Humidity 79.3

 Ambient CO2 483

Fish	Temperature	Range	Relative Humidity	Range	CO ²	Range	# Occupants	
758	71.9	72 - 78	59.5	30% - 60%	960	MAX 700 > Ambient	2	
Noticeable Odor		Yes	Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling	2' X 2' Lay in		No		No			
Walls	Drywall		Yes		Yes		Walls at mechanical room	
Floor	12" x 12" Vinyl		Yes		No			
Ceiling Clean		Yes	HVAC Supply Grills Clean		Yes	HVAC Return Grills Clean		No
Walls Clean		No	Inside of Supply Duct Clean		Yes	Inside of Return Duct Clean		N/A
Flooring Clean		Yes	Ceiling at Supply Grills Clean		Yes			
Room Surfaces Clean		Yes						
Trash Removed		Yes	Exhaust Fans Working		N/A	Unapproved Chemicals / Cleaners in Room		No
Signs of Pests		No	Drain Traps Wet		Yes	Air Fresheners in Room		No
Room Cluttered		No	Food if Stored in Room is in Sealed Containers		Yes			
Mechanical Equipment Location			FISH 758M			Mechanical Room Clean		No
Filters Installed Properly		Yes	Filters Clean		No	Inside of HVAC Unit Clean		N/A
Condensate Pan Clean		N/A	Cooling Coil Clean		N/A			
Fresh Air Intake Location			Side of door to 758M ▼			Fresh Air Intake Free of Obstruction		Yes
Pollutant Sources Near Air Intake			Oak Trees ▼					

Observations

Musty odor in room - wall at mechanical room wet up 12" with visible microbial growth at base board - Dust on walls in front of HVAC supply grills - Water standing on counter by sink and puddle on floor in front of sink and under refrigerator (kids washing hands) - Back splash needs caulk.

Exterior of both buildings cracked / blistered paint with water in blisters.

Walls of Mechanical room wet and water damaged with visible microbial growth under both fresh air grills - 1" standing water on mechanical room floor running into classrooms 755 & 758

Corrective Actions to be Completed by Site Based Staff

Clean dust from all wall surfaces	▼
Promptly wipe up spills at sinks	▼
Do not allow water to pond on floor	▼
Remove and replace A/C filters	▼
	▼
	▼
	▼
	▼

Corrective Actions to be Completed by PPO

Remove and replace bottom 2 feet of wall	▼
that backs up to mechanical room	▼
Caulk sink counter top	▼
Replace damaged wall material in Mech Rooms	▼
Repair cause of water damage	▼
Repair building exterior paint and cracks	▼
	▼
	▼