RISK
MANAGEMENT…

managing risk with responsibility

Aston A. Henry, Director
Risk Management Department

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September 8, 2014 Signature on File

For Custodial Supervisor Use Only

☐ Custodial Issues Addressed

☐ Custodial Issues Not Addressed

_____

_____

TO: Stephen Frazier, Principal
Silver Trail Middle School

FROM: Richard Rosa, Project Manager
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

On September 2, 2014, I conducted an assessment at **Silver Trail 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.

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 Assessment

Silver Trail Middle | Evaluation Date: September 2, 2014 | Time of Day: 10:30

Outdoor Conditions Temperature: 81.8 | Relative Humidity: 84.3 | Ambient CO2: 473

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
116	69.6	72 - 78	41.3	30% - 60%	784	MAX 700 > Ambient	

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Noticeable Odor	No			
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	No	No	
Floor	Carpet	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
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	N/A	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	FISH 121 # 20			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	possible standing water		

Observations

Staff member states that when it rains the area around the entrance door to the corridor smells like mold. There is an HVAC return air vent over the door. There is an active roof leak on the corridor side of the door. I assessed the area above the drop ceiling and found the area to be dry. I noticed a 2' x 2' square above the drop ceiling cut in the firewall leading into the corridor from the occupied space. Also noticed a gap in the firewall leading into the mechanical room across the corridor from F-116. Possible puddling around the rooftop fresh air intake, and when it rains hard the air is filled with moisture and is entering into the occupied space that affects staff member.

Corrective Actions to be Completed by Site Based Staff	Corrective Actions to be Completed by PPO
Replace stained ceiling tiles after repairs	Evaluate closing up the firewall into office area
	Set temperature to 72 - 78 degrees
	Evaluate and repair cause of stained ceiling tiles
	See observations for additional information

IAQ Assessment

Silver Trail Middle | **Evaluation Date** September 2, 2014 | **Time of Day** 11:00

Outdoor Conditions **Temperature** 81.8 **Relative Humidity** 84.3 **Ambient CO2** 473

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
116A	68.5	72 - 78	43.1	30% - 60%	849	MAX 700 > Ambient	

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Noticeable Odor	No			
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	No	No	
Floor	Carpet	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
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	N/A	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	FISH 121 # 20			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	possible standing water		

Observations

Corrective Actions to be Completed by Site Based Staff	Corrective Actions to be Completed by PPO
	Set temperature to 72 - 78 degrees

IAQ Assessment

Silver Trail Middle | **Evaluation Date** September 2, 2014 | **Time of Day** 11:15

Outdoor Conditions **Temperature** 81.8 **Relative Humidity** 84.3 **Ambient CO2** 473

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
116B	70.1	72 - 78	43.4	30% - 60%	815	MAX 700 > Ambient	

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Noticeable Odor	No			
Ceiling	Drywall	No	No	
Walls	Drywall	No	No	
Floor	Carpet	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
Flooring Clean	Yes	Ceiling at Supply Grills Clean	Yes		
Room Surfaces Clean	Yes				

Trash Removed	N/A	Exhaust Fans Working	N/A	Unapproved Chemicals / Cleaners in Room	No
Signs of Pests	No	Drain Traps Wet	N/A	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	Not applicable			Mechanical Room Clean	N/A
Filters Installed Properly	N/A	Filters Clean	N/A	Inside of HVAC Unit Clean	N/A
Condensate Pan Clean	N/A	Cooling Coil Clean	N/A		

Fresh Air Intake Location	not applicable	Fresh Air Intake Free of Obstruction	N/A
Pollutant Sources Near Air Intake	Not Applicable		

Observations

Corrective Actions to be Completed by Site Based Staff

Corrective Actions to be Completed by PPO

IAQ Assessment

Silver Trail Middle | **Evaluation Date** September 2, 2014 | **Time of Day** 11:30

Outdoor Conditions **Temperature** 81.8 **Relative Humidity** 84.3 **Ambient CO2** 473

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
116C	67.6	72 - 78	44.8	30% - 60%	878	MAX 700 > Ambient	

Noticeable Odor No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	No	No	
Floor	Carpet	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
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	N/A	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	FISH 121 # 20			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	possible standing water		

Observations

Corrective Actions to be Completed by Site Based Staff

Corrective Actions to be Completed by PPO

	Set temperature to 72 - 78 degrees

IAQ Assessment

Silver Trail Middle | **Evaluation Date** September 2, 2014 | **Time of Day** 11:45

Outdoor Conditions **Temperature** 81.8 **Relative Humidity** 84.3 **Ambient CO2** 473

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
116D	69.0	72 - 78	41.2	30% - 60%	876	MAX 700 > Ambient	

Noticeable Odor No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	No	No	
Floor	Carpet	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
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	N/A	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	FISH 121 # 20			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	possible standing water		

Observations

Remove live plant from window sill

Corrective Actions to be Completed by Site Based Staff

Corrective Actions to be Completed by PPO

	Set temperature to 72 - 78 degrees

IAQ Assessment

Silver Trail Middle | **Evaluation Date** September 2, 2014 | **Time of Day** 12:00

Outdoor Conditions **Temperature** 81.8 **Relative Humidity** 84.3 **Ambient CO2** 473

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
116E	66.2	72 - 78	42.5	30% - 60%	846	MAX 700 > Ambient	

Noticeable Odor No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	No	No	
Floor	Carpet	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
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	N/A	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	FISH 121 # 20			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	possible standing water		

Observations

Corrective Actions to be Completed by Site Based Staff

Corrective Actions to be Completed by PPO

	Set temperature to 72 - 78 degrees

IAQ Assessment

Silver Trail Middle | **Evaluation Date** September 2, 2014 | **Time of Day** 12:15

Outdoor Conditions **Temperature** 81.8 **Relative Humidity** 84.3 **Ambient CO2** 473

Fish	Temperature	Range	Relative Humidity	Range	CO^2	Range	# Occupants
116F	68.0	72 - 78	41.4	30% - 60%	867	MAX 700 > Ambient	

Noticeable Odor No

		Visible water damage / staining?	Visible microbial growth?	Amount of material affected
Ceiling	2' X 4' Lay in	No	No	
Walls	Drywall	No	No	
Floor	Carpet	No	No	

Ceiling Clean	Yes	HVAC Supply Grills Clean	Yes	HVAC Return Grills Clean	Yes
Walls Clean	Yes	Inside of Supply Duct Clean	Yes	Inside of Return Duct Clean	Yes
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	N/A	Air Fresheners in Room	No
Room Cluttered	No	Food if Stored in Room is in Sealed Containers	N/A		

Mechanical Equipment Location	FISH 121 # 20			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	Roof top	Fresh Air Intake Free of Obstruction	Yes
Pollutant Sources Near Air Intake	possible standing water		

Observations

Corrective Actions to be Completed by Site Based Staff

Corrective Actions to be Completed by PPO

	Set temperature to 72 - 78 degrees