

managing risk with responsibility

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September 26, 2008 Signature on File

TO: Ms. Fran Rubinstein, Principal

Tedder Elementary School

FROM: Robert Krickovich, Coordinator, LEA

Facilities and Construction Management

SUBJECT: Indoor Air Quality (IAQ) Assessment

FISH 141, 142, 143, 144, 148 and 150

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

On September 23, 2008 I conducted an assessment of FISH 141, 142, 143, 144, 148 and 150 at **Tedder Elementary School**. This evaluation included observations of the flooring system, ceiling tiles, false ceiling plenum, environmental surfaces, interior and exterior walls, and the accessible ventilation equipment. Additionally, environmental parameter measurements were taken to include temperature, relative humidity, and carbon dioxide. The detailed findings, along with the recommended corrective action can be found on the attached IAQ Assessment Worksheets.

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. Within two weeks a representative from the Custodial/Grounds Department will conduct a follow-up visit to ensure that all 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 me at 754-321-1638.

cc: Sharon Airaghi, Area Superintendent
David Hall, Area Director
Jeffrey S. Moquin, Director, Risk Management
Sam Bays, Project Manager, Facilities and Construction Management
Lynn Cavall, Broward Teachers Union
Roy Jarrett, Federation of Public Employees
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1

Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division

RK/tc Enc.

	1 e	edder Elementar	y School		Evaluat	September 18, 2008		
Time of Day	1:50 pm]				Evaluation Date September 23, 2008		
Outdoor Condit	ions Ten	mperature 8	3234	Relative Humidity	76.8	Ambient CO2 421		
Fish T	emperature	Range Rela	tive Humidity	Range	CO2	Range # Occupants		
141	74.8	72 - 78	63.6	30% - 60%	643	Max 700 > Ambient 8		
Noticeable Ode	or No	_	/isible water nage / staining	Visible micr g? growth?		Amount of material affected		
Ceiling Type	2 x 4 Lay	In	Yes	No	1 ceiling tile			
Wall Type	Drywall		No	No	None			
Flooring	12 x 12 Vi	nyl	No	No		None		
	Clean	Minor Dust / Debris	Needs Cleaning	I	Correc	ctive Action Required		
Ceiling	No	Yes	Yes	Rem	ove and	replace stained ceiling tile		
Walls	Yes	No	No					
Flooring	Yes	No	No					
HVAC Supply (Grills Yes	No	No					
HVAC Return Grills Yes No No			No					
Ceiling at Supply Yes No No Grills								
Surfaces in Ro	om Yes	No	No					
) Dbservations								
Findings:								
 One stained ceiling tile and stained/rusted ceiling grid over door to FISH 141A Humidity level was elevated at the time of the assessment 								
Recommendation	ons:							
Site Based Mair - Continue to mo appropriate		on for any signs	of microbial g	rowth as well as du	st and de	ebris accumulation and clean as		

Physical Plant Operations:
- Evaluate cause of stained ceiling tile and ceiling grid over door to FISH 141A and repair as appropriate.

Facilities and Construction Management:
- Contact the contractor to evaluate and repair HVAC under warranty to reduce humidity level

IAQ Assessment

0571

Evaluation Requested September 18, 2008 **Tedder Elementary School Evaluation Date** September 23, 2008 Time of Day 1:50 pm **Outdoor Conditions Temperature** 8234 76.8 **Relative Humidity Ambient CO2** 421 Temperature Fish CO₂ **Relative Humidity** Range Range Range # Occupants 142 72.5 68.6 552 72 - 78 Max 700 > Ambient 30% - 60% Visible water Visible microbial **Amount of material Noticeable Odor** No damage / staining? growth? affected None **Ceiling Type** 2 x 4 Lay In No No **Wall Type** Drywall None No No **Flooring** 12 x 12 Vinyl None No No Clean **Minor Dust Needs Corrective Action Required** Cleaning / Debris Ceiling Yes No No Yes No Walls No **Flooring** Yes No No HVAC Supply Grills | Yes No No HVAC Return Grills | Yes No No **Ceiling at Supply** Yes No No **Grills Surfaces in Room** Yes No No **Observations** Findings: Humidity level was elevated at the time of the assessment Recommendations: Site Based Maintenance: Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate Facilities and Construction Management: Contact the contractor to evaluate and repair HVAC under warranty to reduce humidity level

IAQ Assessment

0571

Time of Day 1:	50 pm Evaluation Date September 23, 2008							
Outdoor Conditions	Temperature 8234 Relative Humidity 76.8 Ambient CO2 421							
Fish Tempe	erature Range Relative Humidity Range CO2 Range # Occupants							
143 7	1.6 72 - 78 68.8 30% - 60% 576 Max 700 > Ambient 1							
Noticeable Odor	No Visible water Visible microbial Amount of material damage / staining? growth? affected							
Ceiling Type	2 x 4 Lay In No None							
Wall Type	Drywall No None							
Flooring	12 x 12 Vinyl No None							
	Clean Minor Dust Needs Corrective Action Required							
Ceiling	Yes No No							
Walls	Yes No No							
Flooring	Yes No No							
HVAC Supply Grills	Yes No No							
HVAC Return Grills	Yes No No							
Ceiling at Supply Grills	Yes No No							
Surfaces in Room	Yes No No							
Observations Findings:								
- Roaches under sink	area elevated at the time of the assessment							
Recommendations:								
Site Based Maintenance: - Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate								
Physical Plant Operations: - Initiate a work order for pest control to investigate and treat under sink area								
Facilities and Construction Management: - Contact the contractor to evaluate and repair HVAC under warranty to reduce humidity level								

IAQ Assessment

Tedder Elementary School

0571

September 18, 2008

Location Number

Evaluation Requested

	Т	edder Elementa	ıry School		Evaluation	on Requested Sep	otember 18, 2008	
Time of Day	1:50 pm				E	valuation Date Sep	otember 23, 2008	
Outdoor Condi	tions Te	mperature [8234	Relative Humidity	76.8	Ambient Co	O2 421	
	Temperature	Range Rela	ative Humidity	Range	CO2	Range	# Occupants	
144	73	72 - 78	68.1	30% - 60%	562	Max 700 > An	nbient 1	
Noticeable Od	lor No		Visible water mage / staining	Visible micro growth?		Amount of material affected		
Ceiling Type	2 x 4 La	y In	No	No		None	;	
Wall Type	Drywa	ill	Yes	No		5 square feet		
Flooring	12 x 12 V	/inyl	No		[None		
	Clean	Minor Dust / Debris	Needs Cleaning		Correc	tive Action Require	ed .	
Ceiling	Yes	No	No					
Walls	No Yes Repair/replace wall material as necessary					ecessary		
Flooring	Flooring Yes No No							
HVAC Supply Grills Yes No			No					
HVAC Return Grills Yes No			No					
Ceiling at Sup Grills	ply Yes	No	No					
Surfaces in Ro	oom Yes	No	No					
bservations								
Findings: - Water damaged wall material under window to the left of the sink - @ 5 square feet - Humidity level was elevated at the time of the assessment								
Recommendations:								
Site Based Maintenance: - Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as								

- Evaluate cause of water damaged wall under window to the left of the sink and repair as appropriate. Repair/replace wall

- Contact the contractor to evaluate and repair HVAC under warranty to reduce humidity level

appropriate

Physical Plant Operations:

Facilities and Construction Management:

material as necessary.

IAQ Assessment

0571

Tedder Elementary School Evaluation Requested September 18, 2008									
Time of Day	1:50 pm]			E	valuation Date	Septem	nber 23, 2008	
Outdoor Cond	itions Ter	nperature	8234 R	elative Humidity	76.8	Ambie	nt CO2 [421	
Fish	Temperature	Range Rela	ative Humidity	Range	CO2	Ran	ge	# Occupants	
148	73.2	72 - 78	69.6	0% - 60%	533	Max 700	> Ambie	ent 1	
Noticeable Oc	dor No		Visible water mage / staining?	Visible micro growth?		Amount of mat	terial		
Ceiling Type	2 x 4 Lay	^r In	Yes	No		1 c	eiling tile	!	
Wall Type	Drywal	I	No	No			None		
Flooring	12 x 12 Vi	nyl	No	No			None		
Clean Minor Dust Needs Corrective Action Required									
Ceiling	No	Yes	Yes	Remo	ove and	replace staine	d ceiling	tile	
Walls	Yes	No	No						
Flooring	Yes	No	No						
HVAC Supply	Grills Yes	No	No						
HVAC Return	HVAC Return Grills Yes No No								
Ceiling at Sup Grills	Ceiling at Supply Yes No No Grills								
Surfaces in Ro	oom Yes	No	No						
L Observations									
Findings: - One stained ceiling tile in FISH 148A - Humidity level was elevated at the time of the assessment									
Recommendations:									
Site Based Maintenance: - Remove and replace stained ceiling tile in FISH 148A. If stain returns contact COMPASS to generate a work order for Physical Plant Operations to evaluate cause Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate									
Facilities and Construction Management: - Contact the contractor to evaluate and repair HVAC under warranty to reduce humidity level									

IAQ Assessment

0571

Evaluation Requested September 18, 2008

	16	edder Elemen	tary School		Evaluation	on Requested Septer	nber 18, 2008
Time of Day	1:50 pm				E	valuation Date Septer	mber 23, 2008
Outdoor Condi	itions Ten	nperature	8234	Relative Humidity	76.8	Ambient CO2	421
Noticeable Od Ceiling Type Wall Type	73.1 7 lor No 2 x 4 Lay Drywal	72 - 78 da	69.4 Visible water amage / staining No Yes	Range 30% - 60% Visible micromagnets Ro No		Range Max 700 > Ambig Amount of material affected None 2 square fee	
Flooring	12 x 12 Vi	nyl	No	No		None	
Ceiling	Clean	Minor Dus / Debris No	t Needs Cleaning		Correct	tive Action Required	
Walls	No	Yes	Yes	Repai	r/replace	wall material as nece	ssary
Flooring	Yes	No	No				
HVAC Supply	Grills Yes	No	No				
HVAC Return	Grills Yes	No	No				
Ceiling at Sup Grills	ply Yes	No	No				
Surfaces in Ro	oom Yes	No	No				
Observations							

IAQ Assessment

0571

Location Number

O

Findings:

- Water damaged wall material under window to the right of the sink @ 2 square feet
- Insect droppings under sink
- Humidity level was elevated at the time of the assessment

Recommendations:

Site Based Maintenance:

Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

Physical Plant Operations:

- Evaluate cause of water damaged wall under window to the right of the sink and repair as appropriate. Repair/replace wall material as necessary.
- Initiate a work order for pest control to investigate and treat under sink area

Facilities and Construction Management:

· Contact the contractor to evaluate and repair HVAC under warranty to reduce humidity level