

# managing risk with responsibility

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Jeffrey S. Moquin, Director Risk Management Department

February 8, 2007 Signature on File

TO: Ms. Sherry Bees, Principal

**Maplewood Elementary School** 

FROM: Aston A. Henry, Jr., Supervisor

Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

FISH 201A, 201B, 202 and Portable 974C

On January 16, 2007 I conducted an assessment of FISH 201A, 201B, 202 and Portable 974C at **Maplewood 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. 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.

Should any questions arise, or if the current concerns continue after the attached recommendations have been addressed, please feel free to contact me at 754-321-3200.

cc: Dr. Joanne Harrison, Area Superintendent

Jackie Haywood, Area Director

Jeffrey S. Moquin, Director, Risk Management

Philip Kaufold, Project Manager, Facilities and Construction Management

Ruby Fitzgerald, Broward Teachers Union

Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1

Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division Robert Krickovich, Coordinator, LEA, Facilities and Construction Management

AAH/tc Enc.

	Maplew	vood Elementar	ry School	Evaluation Requested				
Time of Day	1:29 p.m.				E	Evaluation Date	January	16, 2007
Outdoor Condi	itions Tem	perature 8	81.4	Relative Humidity	66	Ambier	nt CO2	525
Fish 201A		Range Rela	ative Humidity	Range 30% - 60%	CO2	Ran	ge # <sup>(</sup> > Ambient	Occupants
Noticeable Od		\	 Visible water nage / staining	Visible micro		Amount of mat		
Ceiling Type	Drywall		No	Yes	[		/arious	
Wall Type	Drywall		No	Yes	[	Various		
Flooring	Tile		No	No			None	
	Clean	Minor Dust / Debris	Needs Cleaning		Correc	ctive Action Re	quired	
Ceiling	No	Yes	Yes	CI	lean with	h Wexcide disi	nfectant	
Walls	No Yes Clean with Wexcide disinfectant							
Flooring	Flooring Yes No No							
HVAC Supply Grills Yes No No								
HVAC Return	Grills Yes	No	No					
Ceiling at Sup Grills	Ceiling at Supply Yes No No Grills							
Surfaces in Ro	oom Yes	No	No					
) Dbservations								
Findings: (Restroom) - Visible microbial growth on ceiling and walls - HVAC return grill in FISH 201 was covered with cardboard								
Recommendations:								
Site Based Maintenance: - Clean walls and ceiling with Wexcide disinfectant solution - 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: - Action was taken by Physical Plant Operations to repair or replace back draft damper in exhaust fan and address the exhaust fan operation - Coordinate with Project Manager and/or contractor regarding blocked off return air grills								

2741

**Location Number** 

	Maple	vood Elementar	y School		Evaluat	ion Requested			
Time of Day	1:29 p.m.				1	Evaluation Date	January	16, 2007	
Outdoor Condit	ions Ten	nperature 8	1.4 Re	elative Humidity	66	Ambie	nt CO2	525	
Fish T	emperature	Range Relat	tive Humidity	Range	CO2	Ran	ae # (	Occupants	
201B		72 - 78	30	0% - 60%			> Ambient		
Noticeable Odd	or No		isible water age / staining?	Visible micro growth?	bial	Amount of mat affected	terial		
Ceiling Type	Drywal		No Yes			Various			
Wall Type	Drywal		No			V	arious		
Flooring	Tile		No No				None		
	Clean	Minor Dust / Debris	Needs Cleaning		Corre	ctive Action Re	quired		
Ceiling	No	Yes	Yes	CI	lean wit	th Wexcide disi	nfectant		
Walls	No	Yes	Yes	CI	lean wit	th Wexcide disi	nfectant		
Flooring	Yes	No	No						
HVAC Supply 6	Grills Yes	No	No						
HVAC Return G	rills Yes	No	No						
Ceiling at Supp Grills	ly Yes	No	No						
Surfaces in Roo	om Yes	No	No						
) Dbservations									
Findings: (Rest									
- Visible microbia	al growth on ceil	ing and walls							
Recommendation	ons:								
Site Based Main	ntenance:								
- Clean walls and	d ceiling with We	excide disinfecta	nt solution						
<ul> <li>Continue to mo appropriate</li> </ul>	nitor this location	n for any signs o	of microbial grov	vth as well as dus	t and de	ebris accumulation	on and clear	n as	
	Inorotion								
Physical Plant Operations: - Action was taken by Physical Plant Operations to repair or replace back draft damper in exhaust fan and address the exhaust									
fan operation									
- Coordinate with Project Manager and/or contractor regarding blocked off return air grills									

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**Location Number** 

	Мар	lewood Elem	Evaluati	ion Requested				
Time of Day	1:29 p.m.				E	Evaluation Date Ja	nuary 16, 2007	
Outdoor Cond	itions T	emperature	81.4	Relative Humidity	66	Ambient CC	525	
Fish	Temperature	Range	Relative Humidity	/ Range	CO2	Range	# Occupants	
202	72.6	72 - 78	53.9 30% - 60%		1594	Max 700 > Ambient 22		
Noticeable Odor No			Visible water Visible micro damage / staining? growth?			Amount of material affected		
Ceiling Type	Ceiling Type 2 x 4 Lay In		No No			None		
Wall Type	Dryw	/all	No	No		West wall		
Flooring	Tile	}	No	No		None	<b>;</b>	
Ceiling Walls Flooring HVAC Supply HVAC Return Ceiling at Sup	Grills Yes	Minor D / Debr No Yes No No No	is Cleaning No Yes No No No No			h Wexcide disinfect		
Surfaces in R	oom Yes	No	No					
bservations								
Findings:								

**Location Number** 

- Visible microbial growth on West wall behind posters
- HVAC return grill was covered with cardboard
- CO2 level was slightly elevated at the time of the assessment

## Recommendations:

### Site Based Maintenance:

- Remove posters from West wall and clean wall with Wexcide disinfectant solution
- 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:

Coordinate with Project Manager and/or contractor regarding blocked off return air grills and elevated CO2 level

	Maple	ewood Elemen	Evaluati	ion Requested				
Time of Day	1:00 p.m.				E	Evaluation Date	January	16, 2007
Outdoor Condi	tions Te	emperature	81.4	Relative Humidity	66	Ambier	nt CO2	525
Fish	Temperature	Range R	elative Humidity	Range	CO2	Ranç	ge #	Occupants
P-974C	74.9	72 - 78	48.9	30% - 60%	2281	Max 700 >	> Ambient	22
Noticeable Odor No			Visible water amage / staining	Visible micro growth?		Amount of mate affected	erial	
Ceiling Type	2 x 4 La	ny In	No	No			None	
Wall Type	Tackable		Yes	Yes		All Walls		
Flooring	Tile		No	No			None	
	Clean	Minor Dus / Debris	Cleaning		Correc	ctive Action Rec	quired	
Ceiling	Yes	No	No					
Walls	No	Yes	Yes	С	lean wit	h Wexcide disir	nfectant	
Flooring	Yes	No	No					
HVAC Supply	Grills No	Yes	Yes	С	lean wit	h Wexcide disir	nfectant	
HVAC Return	Grills					N/A		
Ceiling at Sup Grills	ply Yes	No	No					
Surfaces in Ro	oom Yes	No	No					
bservations								
Findings:	al arouth on C	outh wall and a	loveted meiatur	a content in all walls				

**Location Number** 

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- Visible microbial growth on South wall and elevated moisture content in all walls
- Minor dust build up on HVAC supply grills
- T-1-11 appears soft in some areas
- CO2 level was elevated at the time of the assessment

### Recommendations:

# Site Based Maintenance:

- Clean HVAC supply grills with Wexcide disinfectant solution
- 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 microbial growth and elevated moisture and repair as appropriate. Remove and replace wall material as appropriate.
- Evaluate exterior of portable and repair as appropriate
- Evaluate HVAC system for proper operation and repair as appropriate to lower CO2 level