



Jeffrey S. Moquin, Director Risk Management Department Telephone: 754-321-3200 Facsimile: 754-321-3290

July 13, 2005

TO:	Mr. Kenneth Fulop, Principal Cross Creek School
FROM:	Robert J. Krickovich, Coordinator, LEA Facilities and Construction Management, Environmental Division
SUBJECT:	Indoor Air Quality (IAQ) Assessment FISH 101, 120, 202, 208 and 606

On July 7, 2005 the IAQ Assessment Team conducted an assessment FISH 101, 120, 202, 208 and 606 at **Cross Creek School**. The evaluation consisted of a walkthrough of the identified areas to assess the current condition of the location with regard to indoor air quality. This assessment included observations of the carpet, floor tile, ceiling tile, interior walls, false ceiling plenum, and accessible ventilation equipment.

Attached are the findings of this assessment along with recommendations for further assessment, remediation, or corrective actions, if needed.

Generally, the IAQ Assessment did not identify any existing conditions significantly impacting IAQ and thereby presenting immediate health and safety concerns 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 754-321-1638.

 cc: Dr. Joanne Harrison, Area Superintendent Sharon Airaghi, Area Director Jeffrey S. Moquin, Director, Risk Management Raul Ascarrunz, Project Manager II, Facilities and Construction Management LaFrances Trotter, Broward Teachers Union Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1 Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division Robert Krickovich, Project Manager II, Facilities and Construction Management

RK/tc Enc.

			IAQ Ass	sessment				
		Cross Creek	School		Evaluat	ion Requested	July 7	, 2005
Time of Day 1	:40 pm				E	Evaluation Date	July 7	, 2005
Outdoor Conditions	S Temper	ature 87	.6	Relative Hun	nidity 74.5	Ambie	nt CO2	448
Fish Temp	erature Ran	ge Relati	ve Humidity	Range	CO2	Ran	ge #	Occupants
101	76 <b>72 -</b> 7	78	74.5	30% - 60%	480	Max 700	> Ambient	2
Noticeable Odor	No		sible water ge / staining		microbial owth?	Amount of mat affected	terial	
Ceiling Type	2 x 4 Lay In		Yes		/es	2 Stained -	Several Rep	laced
Wall Type	Drywall		No		No		None	
Flooring	Carpet		Yes		No	Ent	ire Carpet	
		inor Dust / Debris	Needs Cleaning		Correc	ctive Action Re	equired	
Ceiling	Νο	Yes	Yes		Replace	e stained ceilin	g tiles	
Walls	Yes	No	No					
Flooring	Νο	Yes	Yes		F	Replace Carpet		
HVAC Supply Grills	s No	Yes	Yes		Clean wit	h Wexcide disi	nfectant	
HVAC Return Grills	s No	Yes	Yes		Clean wit	h Wexcide disi	nfectant	
Ceiling at Supply Grills	Νο	No	Yes		Clean dust fr	om Ceiling at S	Supply Gril	S
Surfaces in Room	Yes	Νο	No					

### Findings:

- Dust and debris on HVAC supply and return grills
- Dust and debris on ceiling at HVAC supply grills
- Two stained ceiling tiles
- Carpet is stained and rippled
- Elevated humidity level

### Recommendations:

### Site Based Maintenance:

- Clean HVAC supply and return grills with Wexcide disinfectant solution

- Clean ceiling at HVAC supply grills

- Replace stained ceiling tiles

- 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 Division:

### - Replace carpet

- Evaluate and repair HVAC to lower humidity level

## Project Manager:

		IAQ As	sessment				
	Cros	s Creek School		Evaluation Red	quested	July 7	, 2005
Time of Day 1:	40 pm			Evaluat	ion Date	July 7	, 2005
Outdoor Conditions	Temperatur	87.6	Relative Humidity	74.5	Ambien	nt CO2	448
Fish Tempe	<sup>erature</sup> Range	Relative Humidity	/ Range	CO2	Rang	ge # (	Occupants
120	74 <b>72 - 78</b>	75	30% - 60%	388	Max 700 >	Ambient	2
Noticeable Odor	No	Visible water damage / staining	Visible micro g? growth?		unt of mate affected	erial	
Ceiling Type	Metal Strip	No	Yes		At HV	AC Supply	
Wall Type	Drywall	No	No		Ν	None	
Flooring	Carpet	No	No			None	
	Clean Minor / Del	oris Cleaning	1	Corrective A	ction Rec	quired	
Ceiling	Yes	No No					
Walls	Yes	No					
Flooring	Yes	No					
HVAC Supply Grills				N/A (throu	ugh ceilin	g)	
HVAC Return Grills				N/A (above	strip ceili	ing)	
Ceiling at Supply Grills	No	Yes	Clear	n dust from Ce	iling at S	upply Grill	S
Surfaces in Room	Yes	No					

### Findings:

- Visible microbial growth on ceiling at HVAC supply
- Visible microbial growth on wood chairs and tables
- Visible microbial growth on vinyl base in FISH 123 and 123A
- Water damaged walls on both sides of secondary exit door
- Elevated humidity level

### **Recommendations:**

### Site Based Maintenance:

- Clean ceiling under HVAC supply with Wexcide disinfectant solution

- Clean tables and chairs with Wexcide disinfectant solution

- Clean vinyl base in FISH 123 and 123A 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 Division:

- Evaluate cause of water damage to walls at exit door and replace drywall as appropriate
- Evaluate and repair HVAC to lower humidity level

## Project Manager:

			IAQ Ass	sessment				
		Cross Creel	c School		Evaluat	ion Requested	July 7	, 2005
Time of Day 1	:40 pm				E	Evaluation Date	July 7	, 2005
Outdoor Conditions	S Temp	erature 8	7.6	Relative Hum	nidity 74.5	Ambie	nt CO2	448
Fish Temp	erature Ra	ange Relat	ive Humidity	Range	CO2	Ran	ge #	Occupants
202	71.5 <b>72</b>	- 78	85	30% - 60%	475	Max 700	> Ambient	2
Noticeable Odor	Yes		isible water age / staining		microbial owth?	Amount of mat affected	terial	
Ceiling Type	2 x 4 Lay Ir	1	No	Ν	lo		None	
Wall Type	Drywall		No	Ν	lo		None	
Flooring	12 x 12 Vinyl		No	Ν	10		None	
	Clean	Minor Dust / Debris	Needs Cleaning		Correc	ctive Action Re	quired	
Ceiling	Yes	No	No					
Walls	Yes	No	No					
Flooring	Yes	Νο	No					
HVAC Supply Grills	s No	Yes	Yes		Clean wit	h Wexcide disi	nfectant	
HVAC Return Grills	s No	Yes	Yes		Clean wit	h Wexcide disi	nfectant	
Ceiling at Supply Grills	Νο	Νο	Yes		Clean dust fr	om Ceiling at S	Supply Gril	ls
Surfaces in Room	No	Yes	Yes		Clea	an as appropria	ate	

#### Findings:

- Dust and debris on HVAC supply and return grills
- Dust and debris on ceiling at HVAC supply grills
- Dust and debris on environmental surfaces throughout the room
- Non-SBBC furniture in room (upholstered)
- Visible microbial growth identified on wood desk
- Elevated humidity level

### Recommendations:

### Site Based Maintenance:

- Clean HVAC supply and return grills with Wexcide disinfectant solution
- Clean ceiling at HVAC supply grills
- Clean environmental surfaces throughout the room
- Remove non-SBBC furniture from room
- Clean desk with Wexcide disinfectant solution and if growth returns dispose of desk

- 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 Division:

- Evaluate and repair HVAC to lower humidity level

### Project Manager:

			IAQ Ass	sessment				
		Cross Creel	k School		Evaluat	ion Requested	July 7	, 2005
Time of Day	1:40 pm				E	Evaluation Date	July 7	, 2005
Outdoor Condition	s Tem	perature 8	7.6	Relative Hum	idity 74.5	Ambie	nt CO2	448
Fish Tem	perature F	Range Relat	tive Humidity	Range	CO2	Ran	ge #	Occupants
208	73.5 <b>7</b>	2 - 78	76.7	30% - 60%	471	Max 700	> Ambient	2
Noticeable Odor	Yes		isible water age / staining?		microbial wth?	Amount of mat affected	terial	
Ceiling Type	2 x 4 Lay	In	Νο	N	lo		None	
Wall Type	Drywall		No	N	lo		None	
Flooring	12 x 12 Vir	iyl	No	Ν	lo		None	
	Clean	Minor Dust / Debris	Needs Cleaning		Correc	ctive Action Re	quired	
Ceiling	Yes	No	No					
Walls	Yes	No	No					
Flooring	Yes	Νο	No					
HVAC Supply Grill	ls No	Yes	Yes		Clean wit	h Wexcide disi	nfectant	
HVAC Return Grill	s No	Yes	Yes		Clean wit	h Wexcide disi	nfectant	
Ceiling at Supply Grills	No	Νο	Yes		Clean dust fr	om Ceiling at S	Supply Gril	ls
Surfaces in Room	No	Yes	Yes		Clea	an as appropria	ate	

### Findings:

- Dust and debris on HVAC supply and return grills
- Dust and debris on ceiling at HVAC supply grills
- Dust and debris on environmental surfaces throughout the room
- Elevated humidity level

### Recommendations:

### Site Based Maintenance:

- Clean HVAC supply and return grills with Wexcide disinfectant solution
- Clean ceiling at HVAC supply grills
- Clean environmental surfaces throughout the room
- 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 Division:

- Evaluate and repair HVAC to lower humidity level

## Project Manager:

			IAQ Asse	ssment				
		Cross Cree	k School		Evaluati	on Requested	July 7, 200	)5
Time of Day	1:40 pm				E	valuation Date	July 7, 200	)5
Outdoor Condi	tions Tem	perature 8	7.6 Re	elative Humidit	y 74.5	Ambie	nt CO2 448	
Fish	Temperature	Range Rela	tive Humidity	Range	CO2	Ran	ge # Occi	upants
606	72.2 7	2 - 78	69.8 <b>3</b>	0% - 60%	402	Max 700	> Ambient	2
Noticeable Od	lor No	-	isible water age / staining?	Visible mic growth		Amount of mat affected	erial	
Ceiling Type	Metal Str	р	No	No			None	
Wall Type	Drywall		No	No	[		None	
Flooring	12 x 12 Vir	yl	No	No	[		None	
Ceiling Walls	Clean Yes Yes	Minor Dust / Debris No	Needs Cleaning No		Correc	tive Action Re	quired	
Flooring	Yes	No	Νο					
HVAC Supply	Grills Yes	Νο	Νο					
HVAC Return	Grills Yes	Νο	Νο					
Ceiling at Sup Grills	ply Yes	No	No					
Surfaces in Ro	oom Yes	Νο	No					

### Findings:

- Window frames have rust damage

- Elevated humidity level

#### 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 Division:

- Evaluate cause of damage to wall at window and repair/replace drywall as appropriate

- Evaluate and repair HVAC to lower humidity level

### Project Manager: