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May 14, 2012

**Signature on File**

TO: Debra Friedman, Principal  
**Oakridge Elementary School**

FROM: Richard Rosa, Project Manager  
Facilities and Construction Management

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 November 9, 2011, I conducted an assessment at **Oakridge 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: Area Superintendent  
Area Directors  
Shelley Meloni, Executive Director, Facilities and Construction Management  
Mark Dorsett, Acting Director, Physical Plant Operations Division, Maintenance  
Sonja Coley, Project Manager III, Facilities and Construction Management  
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division  
Aston Henry, Supervisor, Risk Management  
Broward Teachers Union  
Federation of Public Employees

RR/tc  
Enc.

# IAQ Assessment

Location Number   
 Evaluation Requested   
 Evaluation Date

Oakridge Elementary School

Time of Day

Outdoor Conditions      Temperature       Relative Humidity       Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="604"/>	<input type="text" value="75.2"/>	<input type="text" value="72 - 78"/>	<input type="text" value="44.1"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="1051"/>	<input type="text" value="Max 700 &gt; Ambient"/>	<input type="text" value="17"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>	
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="No"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	
Wall Type	<input type="text" value="Transite/Wood"/>		<input type="text" value="No"/>	<input type="text" value="No"/>		<input type="text" value="None"/>	
Flooring	<input type="text" value="12 x 12 Vinyl"/>		<input type="text" value="Yes"/>	<input type="text" value="No"/>		<input type="text" value="20 square feet"/>	

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Remove and replace"/>
HVAC Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
HVAC Return Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Ceiling at Supply Grills	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="N/A"/>
Surfaces in Room	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>

## Observations

### Findings

- Dust build up on HVAC supply and return grills
- Outside air entering behind the floor mounted HVAC unit
- Dust and debris on HVAC coils, condensate pan and drain
- Damaged floor tile in front of HVAC floor unit

### Site Based Maintenance:

- Clean HVAC supply and return grills with Wexcide disinfectant solution
- Ensure class materials and other items are not obstructing HVAC units
- 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:

- Fabricate metal cover to fit behind unit attached to window frame and install fresh air duct from exterior grill into the back of the unit. Utilize tech screws when attaching cover to window frame for serviceable use.
- Pull floor unit away from the wall in order to abate transite wall.
- After abatement is complete, clean HVAC coils, condensate pan and drain
- Remove and replace damaged floor tile in front of HVAC floor unit

- NOTE: Work orders EQ02235 through EQ02239 generated 11-18-11

# IAQ Assessment

Location Number

Oakridge Elementary School

Evaluation Requested

Time of Day

Evaluation Date

Outdoor Conditions      Temperature       Relative Humidity       Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="704"/>	<input type="text" value="71.4"/>	<input type="text" value="72 - 78"/>	<input type="text" value="43"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="1355"/>	<input type="text" value="Max 700 &gt; Ambient"/>	<input type="text" value="23"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>	
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>			
Wall Type	<input type="text" value="Transite/Wood"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>			
Flooring	<input type="text" value="12 x 12 Vinyl"/>	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="40 square feet"/>			

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Remove and replace"/>
HVAC Supply Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
HVAC Return Grills	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>
Ceiling at Supply Grills	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="N/A"/>
Surfaces in Room	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text" value="Clean as appropriate"/>

## Observations

<b>Findings</b>	<ul style="list-style-type: none"> <li>- Dust build up on HVAC supply and return grills</li> <li>- Outside air entering behind the floor mounted HVAC unit</li> <li>- Dust and debris on HVAC coils, condensate pan and drain</li> <li>- Damaged floor tile in front of HVAC floor unit</li> <li>- Outside air entering the room through windows</li> <li>- Dust build up on surfaces</li> </ul>
<b>Site Based Maintenance:</b>	<ul style="list-style-type: none"> <li>- Clean HVAC supply and return grills with Wexcide disinfectant solution</li> <li>- Ensure class materials and other items are not obstructing HVAC units</li> <li>- Clean surfaces throughout the room</li> <li>- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate</li> </ul>
<b>Physical Plant Operations:</b>	<ul style="list-style-type: none"> <li>- Fabricate metal cover to fit behind unit attached to window frame and install fresh air duct from exterior grill into the back of the unit. Utilize tech screws when attaching cover to window frame for serviceable use.</li> <li>- Pull floor unit away from the wall in order to abate transite wall.</li> <li>- After abatement is complete, clean HVAC coils, condensate pan and drain</li> <li>- Remove and replace damaged floor tile in front of HVAC floor unit</li> <li>- Repair windows as appropriate to prevent outside air intrusion</li> </ul>
	- NOTE: Work orders EQ02235 through EQ02239 generated 11-18-11

# IAQ Assessment

Location Number

Oakridge Elementary School

Evaluation Requested

Time of Day

Evaluation Date

Outdoor Conditions      Temperature       Relative Humidity       Ambient CO2

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
<input type="text" value="901"/>	<input type="text" value="69.2"/>	<input type="text" value="72 - 78"/>	<input type="text" value="45.3"/>	<input type="text" value="30% - 60%"/>	<input type="text" value="533"/>	<input type="text" value="Max 700 &gt; Ambient"/>	<input type="text"/>
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="No"/>		<input type="text" value="None"/>	
Ceiling Type	<input type="text" value="2 x 4 Lay In"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Wall Type	<input type="text" value="Transite/Wood"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		
Flooring	<input type="text" value="12 x 12 Vinyl"/>		<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text" value="None"/>		

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Walls	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Flooring	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Supply Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
HVAC Return Grills	<input type="text" value="Yes"/>	<input type="text" value="No"/>	<input type="text" value="No"/>	<input type="text"/>
Ceiling at Supply Grills	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text" value="N/A"/>
Surfaces in Room	<input type="text" value="No"/>	<input type="text" value="Yes"/>	<input type="text" value="Yes"/>	<input type="text"/>

**Observations**

**Findings**

- Minor dust build up on elevated surfaces
- Thermostat was adjusted to 72 at the time of the assessment

**Site Based Maintenance:**

- Clean elevated 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