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November 9, 2006

Signature on File

TO: Ms. Gladys Donovan, Principal
Driftwood Elementary School

FROM: Robert J. Krickovich, Coordinator, LEA
Facilities and Construction Management, Environmental Division

SUBJECT: Indoor Air Quality (IAQ) Assessment
FISH 901 and 902

On October 17, 2006 Richard Rosa conducted an assessment of FISH 901 and 902 at **Driftwood 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.

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: Sam Gregg, Area Superintendent
Margaret Underhill, Area Director
Jeffrey S. Moquin, Director, Risk Management
Bob Sharps, Project Manager, Facilities and Construction Management
Diane Watts, Broward Teachers Union
Mark Dorsett, Manager 1, Physical Plant Operations Division, Zone 1
Roy Norton, Manager Custodial/Grounds, Physical Plant Operations Division

RK/tc
Enc.

IAQ Assessment

Location Number 0721
 Evaluation Requested October 16, 2006
 Evaluation Date October 17, 2006

Driftwood Elementary School

Time of Day 12:10 pm

Outdoor Conditions Temperature 88.8 Relative Humidity 53.2 Ambient CO2 400

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
901	72.2	72 - 78	57.8	30% - 60%	857	Max 700 > Ambient	21
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		No		No		None	
Wall Type		No		No		None	
Flooring		No		No		None	

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

Observations

Findings:

- Room is being used as a science classroom and there are live plants and living organic matter (science projects)
- Cabinets on North wall are damaged
- Exterior stucco cracks under grade

Recommendations:

Site Based Maintenance:

- Clean elevated surfaces throughout the room to remove dust
- Identify landscape sprinklers that are hitting the exterior of the building and redirect them away from the building
- 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 courtyard for drainage issues. Recommend regrading the courtyard to provide adequate drainage.
- Remove baseboard on cabinets and evaluate for damaged wood. Repair/replace damaged wood cabinets on North wall as appropriate.
- Repair exterior stucco cracks under grade

IAQ Assessment

Location Number 0721
 Evaluation Requested October 16, 2006
 Evaluation Date October 17, 2006

Driftwood Elementary School

Time of Day 12:40 pm

Outdoor Conditions Temperature 88.8 Relative Humidity 53.2 Ambient CO2 400

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
902	71.7	72 - 78	58.8	30% - 60%	813	Max 700 > Ambient	22
Noticeable Odor		Visible water damage / staining?		Visible microbial growth?		Amount of material affected	
Ceiling Type		No		No		None	
Wall Type		No		No		None	
Flooring		No		No		None	

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

Observations

Findings:

- Minor dust build up on elevated surfaces
- Water is puddling on the floor of the classroom
- Elevated moisture content in baseboard between windows
- Cabinets on North wall are damaged
- Exterior stucco cracks under grade

Recommendations:

Site Based Maintenance:

- Clean elevated surfaces throughout the room to remove dust
- Identify landscape sprinklers that are hitting the exterior of the building and redirect them away from the building
- 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 courtyard for drainage issues causing puddling on classroom floor. Recommend regrading the courtyard to provide adequate drainage.
- Remove and replace damaged baseboard between windows (approximately 12 linear feet)
- Remove and repair/replace damaged wood cabinets on North wall
- Repair exterior stucco cracks under grade