

February 2, 2009

**Signature on File**

TO: Mr. Donald Cottrell, Principal  
**Broadview Elementary School**

FROM: Edward See, Project Manager  
Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment  
**Portable QPR-2 - 301, 302, 303, 304**

**For Custodial Supervisor Use Only**

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Custodial Issues Addressed

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Custodial Issues Not Addressed

On January 30, 2009 I conducted an assessment of Portable QPR-2 - 301, 302, 303 and 304 at **Broadview 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 754-321-3200.

cc: Dr. Leontine Butler, Area Superintendent  
Dr. Desmond Blackburn, Area Director  
Jeffrey S. Moquin, Executive Director, Support Operations  
Henry Verdugo, Project Manager, Facilities and Construction Management  
Gary Itzkowitz, 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  
Robert Krickovich, Coordinator, LEA, Facilities and Construction Management

ES/tc  
Enc.

# IAQ Assessment

Location Number

0811

Broadview Elementary School

Evaluation Requested

January 28, 2009

Time of Day

Evaluation Date

January 30, 2009

Outdoor Conditions

Temperature

74.9

Relative Humidity

762

Ambient CO2

395

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
P-301	72.8	72 - 78	57.1	30% - 60%	1123	Max 700 > Ambient	14
Noticeable Odor	No		Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling Type	2 x 4		No		No		None
Wall Type	Tackable		No		No		None
Flooring	12 x 12		No		No		None

  

	Clean	Minor Dust / Debris	Needs Cleaning	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: Portable QPR-2

- Environmental parameters were acceptable 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

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0811

Broadview Elementary School

Evaluation Requested

January 28, 2009

Time of Day

Evaluation Date

January 30, 2009

Outdoor Conditions

Temperature

74.9

Relative Humidity

762

Ambient CO2

395

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
P-302	70.4	72 - 78	57.3	30% - 60%	950	Max 700 > Ambient	10
Noticeable Odor	No		Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling Type	2 x 4		Yes		No		3 ceiling tiles
Wall Type	Tackable		No		No		None
Flooring	12 x 12		No		No		None

  

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	No	Yes	Yes	Remove and replace ceiling tile
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: Portable QPR-2**

- 3 stained ceiling tiles
- Temperature was low at the time of the assessment

**Recommendations:**

**Site Based Maintenance:**

- Remove and replace stained ceiling tiles and monitor. If staining returns, contact COMPASS to generate a work order for Physical Plant Operations to evaluate for water intrusion.
- Adjust thermostat to increase temperature. If temperature does not improve, contact COMPASS to generate a work order for Physical Plant Operations to evaluate HVAC system.
- Continue to monitor this location for any signs of microbial growth as well as dust and debris accumulation and clean as appropriate

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Evaluation Date

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Temperature

74.9

Relative Humidity

762

Ambient CO2

395

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
P-303	73.4	72 - 78	59.1	30% - 60%	1096	Max 700 > Ambient	18
Noticeable Odor	No		Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling Type	2 x 4		No		No		None
Wall Type	Tackable		No		No		None
Flooring	12 x 12		No		No		None

  

	Clean	Minor Dust / Debris	Needs Cleaning	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: Portable QPR-2

- Environmental parameters were acceptable 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

# IAQ Assessment

Location Number

0811

Broadview Elementary School

Evaluation Requested

January 28, 2009

Time of Day

Evaluation Date

January 30, 2009

Outdoor Conditions

Temperature

74.9

Relative Humidity

762

Ambient CO2

395

Fish	Temperature	Range	Relative Humidity	Range	CO2	Range	# Occupants
P-304	72.2	72 - 78	70.6	30% - 60%	798	Max 700 > Ambient	16
Noticeable Odor	No		Visible water damage / staining?		Visible microbial growth?		Amount of material affected
Ceiling Type	2 x 4		Yes		No		1 ceiling tile
Wall Type	Tackable		Yes		No		1 square foot
Flooring	12 x 12		No		No		None

  

	Clean	Minor Dust / Debris	Needs Cleaning	Corrective Action Required
Ceiling	No	Yes	Yes	Remove and replace ceiling tile
Walls	No	Yes	Yes	Clean as appropriate
Flooring	Yes	No	No	
HVAC Supply Grills	Yes	No	No	
HVAC Return Grills	No	Yes	Yes	Clean with Wexcide disinfectant
Ceiling at Supply Grills	Yes	No	No	
Surfaces in Room	Yes	No	No	

## Observations

### Findings: Portable QPR-2

- Humidity level was elevated at the time of the assessment
- One stained ceiling tile at West wall
- Visible staining on wall at restroom door - @1 square foot
- Dust and debris on HVAC return grills
- Visible microbial growth on exterior of portable - side and windows

### Recommendations:

#### Site Based Maintenance:

- Remove and replace stained ceiling tile and monitor. If staining returns, contact COMPASS to generate a work order for Physical Plant Operations to evaluate for water intrusion.
- Wipe down wall at restroom door
- Clean HVAC return grills with Wexcide disinfectant solution
- Wash down exterior of portable to remove microbial growth
- 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 HVAC system for proper operation and repair as appropriate to lower humidity level