

# managing risk with responsibility

754 321-1900

754 321-1917

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|----------------------------|------------|
| Risk Management Department | Fax:       |

December 14, 2010 Signature on File

TO: Mr. Donald Lee, Principal

**Broadview Elementary School** 

FROM: Edward See, Project Manager

Risk Management Department

SUBJECT: Indoor Air Quality (IAQ) Assessment

FISH 780 and 781

| For Custodial Supervisor Use Only |                                |  |  |  |  |  |  |
|-----------------------------------|--------------------------------|--|--|--|--|--|--|
|                                   | Custodial Issues Addressed     |  |  |  |  |  |  |
|                                   | Custodial Issues Not Addressed |  |  |  |  |  |  |
|                                   |                                |  |  |  |  |  |  |
| -                                 |                                |  |  |  |  |  |  |
|                                   |                                |  |  |  |  |  |  |

On December 7, 2010 I conducted an assessment of FISH 780 and 781 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. 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 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 754-321-1900.

cc: Dr. Desmond Blackburn, Area Superintendent

Jan Beal, Area Director

Jeffrey S. Moquin, Executive Director, Support Operations

Aston Henry, Supervisor, Risk Management

Greg Boardman, Project Manager, Facilities and Construction Management

Dane Ramson, 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.

|   | Broadview Elen                                | nentary School   |                         | Evaluation Requested Dec      | ember 6, 2010        |
|---|---|--|-------------------------|-------------------------------|----------------------|
| Time of Day   |   |  |                         | Evaluation Date Dec           | ember 7, 2010        |
| <b>Outdoor Conditions</b>                                 | Temperature                                   | 57.4   | Relative Humidity       | 37.8 Ambient CO2              | 390                  |
| Fish Tempe 780 6  Noticeable Odor  Ceiling Type Wall Type | Range 7.8  72 - 78  No  2 x 4 Lay In  Drywall | Relative Humidity  33.4  Visible water damage / staining  No  No | 30% - 60% Visible micro |                               | # Occupants pient 19 |
| Flooring  | 12 x 12 Vinyl                                 | No   | No                      | None                          |                      |
| Ceiling   | Clean Minor / Deb                             | ris Cleaning   |                         | Corrective Action Required    | i                    |
| Walls   | Yes   | No   |                         |                               |                      |
| Flooring  | Yes   | No   |                         |                               |                      |
| HVAC Supply Grills  | Yes   | No   |                         |                               |                      |
| HVAC Return Grills  | Yes   | No   |                         |                               |                      |
| Ceiling at Supply<br>Grills                               | Yes   | No   |                         |                               |                      |
| Surfaces in Room  | Yes   | No   |                         |                               |                      |
| Dbservations  |   |  |                         |                               |                      |
| Findings - No issues identified Site Based Maintenand     | ce:   |  | growth as well as du    | st and debris accumulation an | d clean as           |
|   |   |  |                         |                               |                      |

**IAQ** Assessment

0811

**Location Number** 

|                          |        |            | IAQ Assessment |        |                                | Location          | Number         | 0811       |                          |             |              |
|--------------------------|--------|------------|----------------|--------|--------------------------------|-------------------|----------------|------------|--------------------------|-------------|--------------|
| Broadview Elen           |        |            | view Eleme     | entary | School                         |                   | E              | Evaluatior | n Requested              | Decei       | mber 6, 2010 |
| Time of Day              |        |            | ]              |        |                                |                   |                | Eva        | aluation Date            | Decei       | mber 7, 2010 |
| Outdoor Condi            | tions  | Ter        | nperature      | 57     | 7.4                            | Relative Hum      | nidity         | 37.8       | Ambie                    | nt CO2      | 390          |
|                          | Гетре  |            | Range          | Relati | ve Humidity                    | Range             | (              | CO2        | Ran                      | _           | # Occupants  |
| 781                      | 7:     | 3.2        | 72 - 78        |        | 35.3                           | 30% - 60%         |                | 750        | Max 700                  | > Ambi      | ent 17       |
| Noticeable Od            | or [   | No         |                |        | isible water<br>age / staining | Visible<br>g? gro | microb<br>wth? |            | Amount of material affec |             |              |
| Ceiling Type             |        | 2 x 4 Lay  | In             |        | Yes                            | N                 | 10             |            | 2 ce                     | eiling tile | es           |
| Wall Type                |        | Drywal     |                | No     |                                | 10                |                | None       |                          |             |              |
| Flooring                 |        | 12 x 12 Vi | nyl            |        | No                             | N                 | lo             |            | None                     |             |              |
|                          | ı      | Clean      | Minor D        |        | Needs<br>Cleaning              |                   |                | Correcti   | ve Action Re             | quired      |              |
| Ceiling                  |        | No         | Yes            | ]      | Yes                            |                   | Rei            | move and   | d replace cei            | ling tile   | s            |
| Walls                    |        | Yes        | No             | ]      | No                             |                   |                |            |                          |             |              |
| Flooring                 |        | Yes        | No             | ]      | No                             |                   |                |            |                          |             |              |
| HVAC Supply              | Grills | Yes        | No             | ]      | No                             |                   |                |            |                          |             |              |
| HVAC Return (            | Grills | Yes        | No             | ]      | No                             |                   |                |            |                          |             |              |
| Ceiling at Sup<br>Grills | ply    | Yes        | No             | ]      | No                             |                   |                |            |                          |             |              |
| Surfaces in Ro           | om     | Yes        | No             |        | No                             |                   |                |            |                          |             |              |
| bservations              |        |            |                |        |                                |                   |                |            |                          |             |              |
| er ir                    |        |            |                |        |                                |                   |                |            |                          |             |              |

0811

### 0

- Previous issues with elevated humidity in room work order J467070 generated and completed to repair HVAC system.
- Occupant complaint of allergies and illness
- Visible microbial growth on toys, wood shelves, mirror and various items in room
- 2 stained ceiling tiles

# Site Based Maintenance:

- Remove and replace stained ceiling tiles and monitor. If stains return contact COMPASS to generate a work order for Physical Plant Operations to evaluate for cause.
- 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:

- Work order EQ00856 generated for custodial assistance to wipe down items in room