

# managing risk with responsibility

| Aston A. Henry, Director |    |
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| Risk Management Departme | nt |

 Telephone:
 754 321-1900

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 754 321-1917

| March 23, 2015 | Signature on File                                           | For Custodial Supervisor Use Only                            |
|----------------|-------------------------------------------------------------|--------------------------------------------------------------|
| TO:            | Dorothy Cain, Principal<br><b>Palm Cove Elementary</b>      | Custodial Issues Addressed<br>Custodial Issues Not Addressed |
| FROM:          | Richard Rosa, Project Manager<br>Risk Management Department |                                                              |
| SUBJECT:       | Indoor Air Quality (IAQ) Assessment                         |                                                              |

On March 19, 2015, I conducted an assessment at **Palm Cove 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 754-321-1900.

cc: Shelley Meloni, Executive Director, Facilities & Construction Mark Dorsett, Manager, Zone 1, Physical Plant Operations Division Roy Norton, Manager, Custodial/Grounds, Physical Plant Operations Division Aston Henry, Director, Risk Management Sonja Coley, Senior Project Manager, Facilities & Construction Broward Teachers Union Federation of Public Employees

RR/jj Enc.

|                                                                                  | IAQ Assess                                                                                   | ment                      |                                                                         |          |
|----------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|---------------------------|-------------------------------------------------------------------------|----------|
| Palm Cove El                                                                     | ementary Evaluation Dat                                                                      | e March 19, 2015          | Time of Day 11:                                                         | 00 AM    |
| Outdoor Conditions Temperatu                                                     | re 81.0 Relative                                                                             | Humidity 73.3             | Ambient CO2 4                                                           | 37       |
| Fish         Temperature         Range           125         71.6         72 - 7 |                                                                                              | Range CO<br>% - 60% 847   |                                                                         | ccupants |
| Noticeable Odor No                                                               | Visible water damage /<br>staining?                                                          | Visible microbial growth? | Amount of<br>material affected                                          |          |
| Ceiling2'x2'/2'x4' Lay inWallsTack BoardFloor12" x 12" Vinyl                     | No<br>No                                                                                     | No<br>No                  |                                                                         |          |
| Ceiling Clean Yes<br>Walls Clean Yes<br>Flooring Clean Yes                       | HVAC Supply<br>Grills Clean<br>Inside of Supply<br>Duct Clean                                | Yes                       | HVAC Return<br>Grills Clean<br>Inside of Return<br>Duct Clean           | Yes      |
| Room Surfaces Yes<br>Clean                                                       | Ceiling at Supply<br>Grills Clean                                                            | Yes                       |                                                                         |          |
| Trash RemovedYesSigns of PestsNoRoom ClutteredNo                                 | Exhaust Fans Working<br>Drain Traps Wet<br>Food if Stored in Room is<br>in Sealed Containers | Yes<br>N/A<br>N/A         | Unapproved Chemicals /<br>Cleaners in Room<br>Air Fresheners<br>in Room | No<br>No |
| Mechanical Equipment Location                                                    | FISH 126                                                                                     |                           | Mechanical Room Clean                                                   | Yes      |
| Filters Installed Properly     Yes       Condensate Pan Clean     Yes            | Filters Clean<br>Cooling Coil Clean                                                          | Yes<br>Yes                | Inside of HVAC Unit Clean                                               | Yes      |
| Bollutant Sources Near Air                                                       | Exterior corridor                                                                            | <ul><li>▼</li></ul>       | Fresh Air Intake Free of Obstruction                                    | Yes      |
| Observations                                                                     |                                                                                              |                           |                                                                         |          |
|                                                                                  |                                                                                              |                           |                                                                         |          |
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Corrective Actions to be Completed by Site Based Staff

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## Corrective Actions to be Completed by PPO

| Repair HVAC to Reduce slightly elevated Humidity | ▼ |
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|                                                                   | IAQ Assess                                                           | sment                                               |                                            |         |
|-------------------------------------------------------------------|----------------------------------------------------------------------|-----------------------------------------------------|--------------------------------------------|---------|
| Palm Cove                                                         | Elementary Evaluation Da                                             | ate March 19, 2015                                  | Time of Day 11:3                           | 0 AM    |
| Outdoor Conditions Tempera                                        | ature 81.0 Relativ                                                   | ve Humidity 73.3                                    | Ambient CO2 43                             | 7       |
|                                                                   | nge Relative Humidity<br>- 78 54.6 30                                | Range         CO <sup>2</sup> 0% - 60%         1144 |                                            | cupants |
| Noticeable Odor No                                                | Visible water damage /<br>staining?                                  | Visible microbial<br>growth?                        | Amount of<br>material affected             |         |
| Ceiling2'x2'/2'x4' Lay inWallsTack BoardFloor12" x 12" Vinyl      | No<br>No                                                             | No<br>No<br>No                                      |                                            |         |
| Ceiling Clean Yes<br>Walls Clean Yes                              | HVAC Supply<br>Grills Clean                                          | Yes                                                 | HVAC Return<br>Grills Clean                | Yes     |
| Flooring Clean Yes                                                | Inside of Supply<br>Duct Clean                                       | Yes                                                 | Inside of Return<br>Duct Clean             | Yes     |
| Room Surfaces No<br>Clean                                         | Ceiling at Supply<br>Grills Clean                                    | Yes                                                 |                                            |         |
| Trash Removed Yes                                                 | Exhaust Fans Working                                                 | N/A                                                 | Unapproved Chemicals /<br>Cleaners in Room | No      |
| Signs of Pests No<br>Room Cluttered Yes                           | Drain Traps Wet<br>Food if Stored in Room is<br>in Sealed Containers |                                                     | Air Fresheners<br>in Room                  | No      |
| Mechanical Equipment Location                                     | FISH 406                                                             |                                                     | Mechanical Room Clean                      | Yes     |
| Filters Installed Properly Yes                                    | Filters Clean                                                        | Yes                                                 | Inside of HVAC Unit Clean                  | Yes     |
| Condensate Pan Clean Yes                                          | Cooling Coil Clean                                                   | Yes                                                 |                                            |         |
| Fresh Air Intake Location<br>Pollutant Sources Near Air<br>Intake | Exterior corridor<br>No                                              | <ul><li>▼</li></ul>                                 | Fresh Air Intake Free of Obstruction       | Yes     |
| Observations                                                      |                                                                      |                                                     |                                            |         |
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#### Corrective Actions to be Completed by Site Based Staff

| Clean dust buildup on horizontal surfaces             | ▼ |
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| Coordinate a schedule between HFSP and                | ▼ |
| classroom Instructor to clean properly due to clutter | ▼ |
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# Corrective Actions to be Completed by PPO

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|                                                                                             | IAQ Assess                                                                                   | nent                                            |                                                                         |            |
|---------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|-------------------------------------------------|-------------------------------------------------------------------------|------------|
| Palm Cove I                                                                                 | Elementary Evaluation Dat                                                                    | e March 19, 2015                                | Time of Day 12:                                                         | 00 PM      |
| Outdoor Conditions Tempera                                                                  | ture 81.0 Relative                                                                           | Humidity 73.3                                   | Ambient CO2 4                                                           | 37         |
|                                                                                             |                                                                                              | Range         CO           % - 60%         1280 |                                                                         | ccupants   |
| Noticeable Odor No                                                                          | Visible water damage /<br>staining?                                                          | Visible microbial growth?                       | Amount of<br>material affected                                          |            |
| Ceiling2'x2'/2'x4' Lay inWallsTack BoardFloor12" x 12" Vinyl                                | No<br>No                                                                                     | No<br>No                                        |                                                                         |            |
| Ceiling Clean Yes<br>Walls Clean Yes<br>Flooring Clean Yes                                  | HVAC Supply<br>Grills Clean<br>Inside of Supply<br>Duct Clean                                | Yes                                             | HVAC Return<br>Grills Clean<br>Inside of Return<br>Duct Clean           | Yes        |
| Room Surfaces Yes<br>Clean                                                                  | Ceiling at Supply<br>Grills Clean                                                            | Yes                                             |                                                                         |            |
| Trash RemovedYesSigns of PestsNoRoom ClutteredNo                                            | Exhaust Fans Working<br>Drain Traps Wet<br>Food if Stored in Room is<br>in Sealed Containers | N/A<br>N/A                                      | Unapproved Chemicals /<br>Cleaners in Room<br>Air Fresheners<br>in Room | No<br>No   |
| Mechanical Equipment Location<br>Filters Installed Properly Yes<br>Condensate Pan Clean Yes | -<br>-                                                                                       | Yes                                             | Mechanical Room Clean<br>Inside of HVAC Unit Clean                      | Yes<br>Yes |
| Fresh Air Intake Location<br>Pollutant Sources Near Air<br>Intake                           | Exterior corridor                                                                            | <br>▼<br>▼                                      | Fresh Air Intake Free of Obstruction                                    | Yes        |
| Observations                                                                                |                                                                                              |                                                 |                                                                         |            |
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Corrective Actions to be Completed by Site Based Staff

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## Corrective Actions to be Completed by PPO

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| Repair HVAC to Reduce Humidity Levels       ▼         Set Temperature to 72 - 78 degrees       ▼         Repair HVAC to reduce CO2 level in classroom       ▼         ▼       ▼         ▼       ▼         ▼       ▼         ▼       ▼         ▼       ▼         ▼       ▼ |                                              |   |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------|---|
|                                                                                                                                                                                                                                                                           | Repair HVAC to Reduce Humidity Levels        | ▼ |
| Repair HVAC to reduce CO2 level in classroom       ▼         ▼       ▼         ▼       ▼         ▼       ▼         ▼       ▼         ▼       ▼                                                                                                                            | Set Temperature to 72 - 78 degrees           | ▼ |
| ▼<br>▼<br>▼<br>▼                                                                                                                                                                                                                                                          | Repair HVAC to reduce CO2 level in classroom | ▼ |
| <b>v</b><br><b>v</b><br><b>v</b>                                                                                                                                                                                                                                          |                                              | ▼ |
| ▼<br>▼                                                                                                                                                                                                                                                                    |                                              | ▼ |
| <b>v</b>                                                                                                                                                                                                                                                                  |                                              | ▼ |
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