# THE SCHOOL BOARD OF BROWARD COUNTY, FLORIDA ENVIRONMENTAL HEALTH & SAFETY DEPARTMENT

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December 6,	, 2022 Signature on File	For Custodial Supervisor Use Only
		Custodial Issues Addressed
ТО	Dacyany Ibarrondo, Principal Ramblewood Elementary School	Custodial Issues Not Addressed
FROM:	Carol Gagnon, Project Manager Environmental Health & Safety Department	
SUBIECT:	Indoor Air Quality (IAQ) Assessment	<u> </u>

On December 5, 2022, I conducted an assessment at **Ramblewood Elementary School, Building 80.** Attached are findings and recommendations.

This IAQ Assessment did not identify any existing conditions impacting IAQ resulting from the circumstances identified during the 2022 Thanksgiving Break. Additional deficiencies related to general building maintenance were identified for correction to prevent any future IAQ concerns. Recommendations were identified for building occupants (i.e. reduce personal items and clutter) to support on-site staff cleaning activities.

Due to individual sensitivities and predisposing health factors, it is possible that some building occupants may elicit a health response to allergens and/or conditions noted 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 any item/s identified and noted 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 MAXIMO. 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 754-321-4200.

CG: lb Enc.

cc: Sam Bays, Task Assigned Executive Director, Facilities & Construction Management Shelley Meloni, Director, Pre-Construction Greg Neiman, Area Supervisor, Zone 1

Scott Gillen, Manager, Zone 2 Dale Spear, Manager, Zone 3 Allen Behnke, Area Manager Trades Benjamin Osborne, Manager Custodial

Broward Teachers Union Federation of Public Employees

	Ramble	wood Eleme	ntary School	Evaluation Date	December 5, 2022	Time of I	<b>Day</b> 9:35
Outdoor	<sup>r</sup> Conditions	; Tempe	rature 7	77.6 Relative I	Humidity 62.7	Ambien	t CO2 453
FISH	-l Te	mperature	Range	Relative Humidity	Range	CO2	Range
INF	) [		72 - 78		30% - 60%		MAX 700 > Ambient
Notice	able Odor		Visi	ble water damage / staining?	Visible Spotting?		ount of al affected
Ceiling							
Walls							
Floor							
No actu Exterior inserts. Plants ( cardboa	Cleaning crew doing work on first floor south side classrooms during inspection.  No actuators on fresh air dampeners in mechanical rooms 852B or 872B.  Exterior caulking observed to be in poor condition/gaps/cracking on multiple windows and exterior vent/metal inserts.  Plants (fake and live), room cluttered, non approved chemicals, stuffed animals, food not in sealed containers, cardboard boxes still issues.  Window sills repaired in most rooms but not painted.						
FISH	Ten	nperature	Range	Relative Humidity	Range	CO2	Range
80-850		73.5	72 - 78	44.0	30% - 60%		MAX 700 > Ambient
Noticea	ble Odor	No	Visib	le water damage / staining?	Visible Spotting?		unt of affected
Ceiling	2' X 2	' Lay in	1	No	No		
Walls		ywall	<u>.</u> 1	No	No		
Floor		12" Vinyl	]	No	No		
1	•	-	o spotting wo	ood desks or tables. Sup	oply and return grills cl	ean. Blinds cle	an. Room cluttered,
FISH	Ten	nperature	Range	Relative Humidity	Range	CO2	Range
80-850B			72 - 78		30% - 60%	l l	MAX 700 > Ambient
Noticea	ble Odor	No	Visib	le water damage / staining?	Visible Spotting?		unt of affected
Ceiling	2' X 2	' Lay in	]	No	No		
Walls		ywall	- 1	No	No		
Floor		12" Vinyl	<u>-</u> 1	No	No		
Former			ound metal p	anel was not completed		working in the	room.
		·		·			

	Ramblew	ood Eleme	ntary Schoo	Evaluation Date	December 5, 2022	Time of Day	9:35
Outdoor	Conditions	Tempe	rature	77.6 Relative I	Humidity 62.7	Ambient C	O2 453
FISH	l Tem	perature	Range	Relative Humidity	Range	CO2	Range
80-85	56	71.8	72 - 78	47.8	30% - 60%	494 <b>M</b>	AX 700 > Ambient
Notice	able Odor [	No	Vis	sible water damage / staining?	Visible Spotting?	Amour material a	
Ceiling	2' X 2'	Lay in		No	No		
Walls	Dry	wall		No	No		
Floor	12" x 1	2" Vinyl		No	No		
had stuf	ffed animals	and live pl	ant in trash				
				t, set of blinds, spare c allway (per HFSP).	eiling tiles and wind	ow screen need t	o de removea
FISH	Temp	erature	Range	Relative Humidity	Range	CO2	Range
80-856	В		72 - 78		30% - 60%	MA	X 700 > Ambient
Noticea	ble Odor	No	Visi	ble water damage / staining?	Visible Spotting?	Amount material aff	
Ceiling	2' X 2' I	_ay in		No	No		
Walls	Dryw	/all	]	No	No		
Floor	12" x 12	" Vinyl	1	No	No		
rottiet /	AC closet. Wa	штерап ас	тпетаг рапе	r completed.			
FISH	Temp	erature	Range	Relative Humidity	Range	CO2	Range
80-855	7	0.7	72 - 78	56.9	30% - 60%	525 <b>MA</b>	X 700 > Ambient
Noticea	ble Odor	No	Visi	ble water damage / staining?	Visible Spotting?	Amount material aff	
Ceiling	2' X 2' l	_ay in		No	No		
Walls	Dryw		_ ]	No	No		
Floor	12" x 12		<u>-</u> ]	No	No		
Window			indow sill ha	ad wet readings. No spot		oles Supply and re	eturn grills clean
1	•			nts. Blinds clean.	ang wood dooks of tal	5.55. Supply and re	real grins order.

Ramblewood Elemental	ry School Evaluation Date	December 5, 2022	Time of Day 9:35
Outdoor Conditions Temperate	ure 77.6 Relative	Humidity 62.7	Ambient CO2 453
<del></del>	Range Relative Humidity 2 - 78	Range 30% - 60%	CO2 Range MAX 700 > Ambient
Noticeable Odor No	Visible water damage / staining?	Visible Spotting?	Amount of material affected
Ceiling 2' X 2' Lay in	No	No	
Walls Drywall	No	No	
Floor 12" x 12" Vinyl	No	No	
Former AC closet. Wall repair at r	netal panel completed.		
FISH Temperature Ra	nge Relative Humidity	Range	CO2 Range
80-854 71.1 <b>72</b>	<b>- 78</b> 61.3	30% - 60%	546 MAX 700 > Ambient
Noticeable Odor No	Visible water damage / staining?	Visible Spotting?	Amount of material affected
Ceiling 2' X 2' Lay in	No	No	
Walls Drywall	No	No	
Floor 12" x 12" Vinyl	No No No anat	No l	as Cumply and nature swills also
Window sills repaired but east windo Blinds clean. Room cluttered, food i		ting wood desks or tabl	es. Supply and return grills clean.
	nge Relative Humidity	Range	CO2 Range
80-854B <b>72</b>	- 78	30% - 60%	MAX 700 > Ambient
Noticeable Odor No	Visible water damage / staining?	Visible Spotting?	Amount of material affected
Ceiling 2' X 2' Lay in	No	No	
Walls Drywall	No	No	
Floor 12" x 12" Vinyl	No No	No	
Former AC closet. Wall repair at me	каї рапеї сотрієтесі.		

	Ramblewood E	lementary Schoo	Evaluation Date	December 5, 2022	Time of Day	9:35
Outdoor	Conditions Te	mperature	77.6 Relative H	Humidity 62.7	Ambient CO	2 453
<b>FISH</b> 80-85	<u> </u>	ure Range 72 - 78	Relative Humidity 62.6	Range 30% - 60%	CO2 551 MAX	Range X 700 > Ambient
Noticea	able Odor No	Vis	sible water damage / staining?	Visible Spotting?	Amount material aff	
Ceiling	2' X 2' Lay ir	ı	No	No		
Walls	Drywall		No	No		
Floor	12" x 12" Viny	1	No	No		
	silis repaired and plants present, ro		g wood desks or tables	s. Supply and return (	grilis clean. Bilnos	ciean. Fake
FISH	Temperatu	re Range	Relative Humidity	Range	CO2	Range
80-853E		72 - 78		30% - 60%		700 > Ambient
Noticeab	ole Odor No	Visil	ble water damage / staining?	Visible Spotting?	Amount o material affec	
Ceiling [	2' X 2' Lay in		No	No		
Walls [	Drywall		No	No		
Floor [	12" x 12" Vinyl		No	No		
Former A	AC closet. Wall rep	ali at metal pane	r completed.			
FISH	Temperatu	re Range	Relative Humidity	Range	CO2	Range
80-876	71.4	72 - 78	46.5	30% - 60%	484 MAX	700 > Ambient
Noticeab	ole Odor No	Visil	ble water damage / staining?	Visible Spotting?	Amount o material affec	
Ceiling [	2' X 2' Lay in		No	No		
Walls [	Drywall		No	No		
Floor [	12" x 12" Viny		No	No		
Window s present.	sills repaired and di	ry. No spotting w	ood desks or tables. Sup	oply and return grills cl	ean. Blinds clean. F	ake plants

		entary School	Evaluation Date	December 5, 2022	Time of Day 9:35	
Outdooi	Conditions Tempe	rature 77.6	Relative H	umidity 62.7	Ambient CO2 453	]
<b>FISI</b> 80-87	<u></u>	Range 72 - 78	Relative Humidity	Range 30% - 60%	CO2 Range MAX 700 > Amb	ient
Notice	eable Odor No		water damage / taining?	Visible Spotting?	Amount of material affected	
Ceiling	2' X 2' Lay in		No	No		
Walls	Drywall	] [	No	No		
Floor	12" x 12" Vinyl	] [	No	No		
Forner	AC closet. Wall repair a	t metal panel co	ompleted.			
FISH	Tompovotuvo	Dongo E	Relative Humidity	Donge	CO2 Range	
80-87	Temperature 71.6	Range F 72 - 78	48.3	Range 30% - 60%	CO2 Range 468 MAX 700 > Ambie	ent
Notices	bla Odar Na	Visible w	ater damage /	Visible	Amount of	
	ble Odor No		aining?	Spotting?	material affected	_
Ceiling	2' X 2' Lay in		No	No L		
Walls Floor	Drywall		No l	No L		_  _
	12" x 12" Vinyl		No Danie Sun	No L	do roturn grill dusty cloaning	
I///indow	eille renaired and dry N	a chatting wood		piy gilliə olcan. Last si	de return grill dusty-clearling	
	sills repaired and dry. N ay. Blinds clean. Room c		ts and cardboard bo	xes. Dirt on floor where	e area carpet was located pendi	ing
	ay. Blinds clean. Room c		ts and cardboard bo	xes. Dirt on floor where		ing
underwa	ay. Blinds clean. Room c		ts and cardboard bo	xes. Dirt on floor where		ing
underwa	ay. Blinds clean. Room c		ts and cardboard bo	xes. Dirt on floor where		ing
underwa cleaning	ay. Blinds clean. Room c	ontains fake plan			e area carpet was located pendi	ing
underwa cleaning FISH	ay. Blinds clean. Room c	ontains fake plan	Relative Humidity	Range	e area carpet was located pendi	
underwa cleaning	ay. Blinds clean. Room c	ontains fake plan Range F 72 - 78	Relative Humidity	Range 30% - 60%	CO2 Range MAX 700 > Ambie	
underwa cleaning FISH 80-875B	ay. Blinds clean. Room c	ontains fake plan Range F 72 - 78 Visible w		Range	e area carpet was located pendi	
underwa cleaning FISH 80-875B	Temperature	Range F 72 - 78  Visible w	Relative Humidity ater damage /	Range 30% - 60% Visible	CO2 Range MAX 700 > Ambie	
FISH 80-875B	Temperature  ble Odor No	Range F 72 - 78  Visible w sta	Relative Humidity  ater damage /	Range 30% - 60% Visible Spotting?	CO2 Range MAX 700 > Ambie	
FISH 80-875B Noticea	Temperature  Suble Odor No  2' X 2' Lay in	Range F 72 - 78  Visible w sta	Relative Humidity  ater damage / aining?	Range 30% - 60%  Visible Spotting?	CO2 Range MAX 700 > Ambie	
FISH 80-875B Noticea Ceiling Walls Floor	Temperature Suble Odor No  2' X 2' Lay in  Drywall	Range F 72 - 78  Visible w sta	Relative Humidity  ater damage / aining?  No No	Range 30% - 60%  Visible Spotting?  No	CO2 Range MAX 700 > Ambie	
FISH 80-875B Noticea Ceiling Walls Floor	Temperature  Suble Odor No  2' X 2' Lay in  Drywall  12" x 12" Vinyl	Range F 72 - 78  Visible w sta	Relative Humidity  ater damage / aining?  No No	Range 30% - 60%  Visible Spotting?  No	CO2 Range MAX 700 > Ambie	
FISH 80-875B Noticea Ceiling Walls Floor	Temperature  Suble Odor No  2' X 2' Lay in  Drywall  12" x 12" Vinyl	Range F 72 - 78  Visible w sta	Relative Humidity  ater damage / aining?  No No	Range 30% - 60%  Visible Spotting?  No	CO2 Range MAX 700 > Ambie	
FISH 80-875B Noticea Ceiling Walls	Temperature  Suble Odor No  2' X 2' Lay in  Drywall  12" x 12" Vinyl	Range F 72 - 78  Visible w sta	Relative Humidity  ater damage / aining?  No No	Range 30% - 60%  Visible Spotting?  No	CO2 Range MAX 700 > Ambie	

	Ramblev	ood Eleme	entary School	Evaluation Date	December 5, 2022	Time of Day 9:35	,
Outdoor	Conditions	Tempe	erature	77.6 Relative	Humidity 62.7	Ambient CO2 453	
FISH		perature	Range	Relative Humidity	Range	CO2 Range	
80-87	74	70.1	72 - 78	47.9	30% - 60%	471 MAX 700 > An	nbient
Notice	able Odor	No	] Vi 	sible water damage / staining?	Visible Spotting?	Amount of material affected	
Ceiling	2' X 2	' Lay in		No	No		
Walls		/wall	_	No	No		
Floor	12" x 1	2" Vinyl		No	No		
				ard boxes. Food not in		grills clean. Blinds clean. Ro	
FISH	Temp	erature	Range	Relative Humidity	Range	CO2 Range	
80-874	В		72 - 78		30% - 60%	MAX 700 > Ami	oient
Noticea	ble Odor	No	Visi	ible water damage / staining?	Visible Spotting?	Amount of material affected	
Ceiling	2' X 2'	Lay in	]	No	No		
Walls	Dryv	vall	]	No	No		
Floor	12" x 12	?" Vinyl	]	No	No		
		, ,		el pending, large gap to o	, and the second		
FISH		perature	Range	Relative Humidity	Range	CO2 Range	
80-873		9.3	72 - 78	49.3	30% - 60%	478 MAX 700 > Ami	oient
Noticea	ble Odor	No	Visi	ible water damage / staining?	Visible Spotting?	Amount of material affected	
Ceiling	2' X 2'	Lay in	]	No	No		
Walls	Dryv	vall	]	No	No		
Floor	12" x 12	2" Vinyl	]	No	No		
1	sills repaired lean. Room c			•	ting wood desks or ta	bles. Supply and return grills cle	 ean.
1							

Ramblewood Eleme	entary School	Evaluation Date	December 5, 2022	Time of Day 9:35
Outdoor Conditions Tempe	erature 77.	6 Relative H	lumidity 62.7	Ambient CO2 453
FISH Temperature	Range 72 - 78	Relative Humidity	Range	CO2 Range
00-0736	12-10		30% - 60%	MAX 700 > Ambient
Noticeable Odor No		water damage / staining?	Visible Spotting?	Amount of material affected
Ceiling 2' X 2' Lay in		No	No	
Walls Drywall		No	No	
Floor 12" x 12" Vinyl		No	No	
Former AC closet. Wall repair scheduled with PPO.	at metal panel	oending, large gap t	o exterior with visible	e light on top edge. Work is
FISH Temperature	Range	Relative Humidity	Range	CO2 Range
80-870 71.8	72 - 78	46.0	30% - 60%	471 MAX 700 > Ambient
Noticeable Odor No		water damage / taining?	Visible Spotting?	Amount of material affected
Ceiling 2' X 2' Lay in		No	No	
Walls Drywall		No	No	
Floor 12" x 12" Vinyl		No	No	
stuffed animals. Cobwebs in low	. •		ply and return grills du	sty. Blinds clean. Room contains
FISH Temperature	Range	Relative Humidity	Range	CO2 Range
80-870B	72 - 78		30% - 60%	MAX 700 > Ambient
Noticeable Odor No		water damage / taining?	Visible Spotting?	Amount of material affected
Ceiling 2' X 2' Lay in		No	No	
Walls Drywall	] [	No	No	
Floor 12" x 12" Vinyl		No	No	
Forner AC closet. Wall repair at	metal panel cor	npleted.		

	Ramblew	vood Eleme	entary School	<b>Evaluation Date</b>	December 5, 2022	Time of Da	ay 9:35
Outdoor	Conditions	Tempe	erature 77	7.6 Relative H	lumidity 62.7	Ambient	CO2 453
FISH	l Ten	nperature	Range	Relative Humidity	Range	CO2	Range
80-87	71	72.2	72 - 78	45.9	30% - 60%	480	MAX 700 > Ambient
Notice	able Odor	No	Visib	le water damage / staining?	Visible Spotting?		unt of affected
Ceiling	2' X 2	' Lay in		No	No		
Walls	Dr	ywall		No	No		
Floor	12" x 1	12" Vinyl		No	No		
					upply grills clean. No	spotting wood	desks or tables.
Food no	ot in sealed c	ontainers.	Stuffed anim	als and fake plants in	n room.		
FISH	Temp	perature	Range	Relative Humidity	Range	CO2	Range
80-872	2 7	72.2	72 - 78	48.7	30% - 60%	536 <b>M</b> .	AX 700 > Ambient
NI - 4!		NI.	Visible	water damage /	Visible	Amoui	nt of
Noticea	ble Odor	No		staining?	Spotting?	material a	
Ceiling	2' X 2'	Lay in		No	No		
Walls	Dryv	wall		No	No		
Floor	12" x 12	2" Vinyl		No	No		
Window	sills dry and	repaired. B	linds clean. Su	pply grills clean. Retu	n grill dirty. No spotting	g wood desks or	tables. Room had
cardboa	rd boxes and	fake plants	s. Food not in s	ealed containers,			
FISH		perature	Range	Relative Humidity	Range	CO2	Range
80-872B			72 - 78		30% - 60%	M.	AX 700 > Ambient
Noticea	ble Odor	No		water damage / staining?	Visible Spotting?	Amoui material a	
Ceiling	me	tal		No	No		
Walls	Drywall/d	concrete	]	No	No		
Floor	Conc		<u>-</u> 1	No	No		
Mechan			r. Drvwall wall		actuator installation or	n fresh air intake	dampener.
			,				

Ramblewood Eleme	entary School	Evaluation Date	December 5, 2022	Time of Day	9:35
Outdoor Conditions Tempe	erature 77.6	Relative H	umidity 62.7	Ambient Co	D2 453
FISH Temperature	Range I	Relative Humidity	Range	CO2	Range
80-851 73.5	72 - 78	69.1	30% - 60%	623 MA	AX 700 > Ambient
Noticeable Odor No		vater damage / aining?	Visible Spotting?	Amoun material a	
Ceiling 2' X 2' Lay in		No	No		
Walls Drywall		No	No		
Floor 12" x 12" Vinyl		No	No		
Window sills dry and repaired. Room contained fake and live humidity was elevated as floor	plants, non appr	oved chemicals, ro	om cluttered, essent		
FISH Temperature	Range R	elative Humidity	Range	CO2	Range
80-852 74.0	72 - 78	64.4	30% - 60%	655 <b>MA</b>	X 700 > Ambient
Noticeable Odor No		ter damage / ning?	Visible Spotting?	Amount material aff	
Ceiling 2' X 2' Lay in		lo	No		
Walls Drywall		lo	No		
Floor 12" x 12" Vinyl		lo	No		
Window sills dry and repaired. B Room contained stuffed animals cleaning team.	• • •		•	. •	
FISH Temperature	Range R	elative Humidity	Range	CO2	Range
80-852B	72 - 78		30% - 60%	MAX	X 700 > Ambient
Noticeable Odor No		ter damage / ning?	Visible Spotting?	Amount material aff	
Ceiling metal		lo	No		
Walls Drywall/concrete		lo	No		
Floor Concrete		lo l	No		
Mechanical room for first floor. D				sh air intake dam	pener. Sprav
foam debris on floor. Piping pend	•				

Ramblewood Elementary School IAQ inspection building 80 on 12/05/2022					
Corrective actions to be completed by site based staff	FISH	Estimated completion date			
Store food in sealed plastic containers	854, 874, 871, 872				
Remove cardboard boxes, store in plastic containers	850, 872, 873, 874, 875				
Clean cobwebs from low corners	870	(cleaning crew 12/5/22 end of day)			
Room too cluttered to clean properly/reduce clutter	850, 851, 852, 853, 854, 874				
Clean supply/ return grills	851 (return), 852 (returns), 870, 872 (return), 875 (E return)	(cleaning crew 12/5/22 end of day)			
Remove non approved chemicals	851				
Remove essential oil diffuser from room	851				
Remove/clean fake plants in room	851, 853, 855, 871, 872, 874, 875, 876				
Remove live plants from room	851, 852, 853, 855, 856, 874				
Remove stuffed animals from room, allergen source	850, 852, 856, 870, 871				
Clean floor where carpet was	875	(cleaning crew 12/5/22 end of day)			

Ramblewood Elementary School IAQ inspection building 80 on 12/05/2022					
Corrective actions to be completed by PPO	FISH	Estimated completion date			
		per PPO 12/23/22 lift required, level			
Evaluate/repair historical water damage at window sills	871	2			
		per PPO 12/23/22 lift required, level			
Fill in gaps around exterior wall metal panel	873B, 874B	2			
Fill in gaps at chilled water pipe entry into exterior wall	852B not completed bottom of piping	per PPO 12/6/22, level 1			
		Per PPO vendor pending start date			
Repair chilled water pipe exterior insulation	852B	requested ASAP, level 1			
		Per PPO 1st floor12/10/22, 2nd			
		floor 12/23/22 lift required, level 1			
Evaluate/repair exterior window caulking	All exterior windows	and 2			
		Per PPO 1st floor12/10/22, 2nd			
		floor 12/23/22 lift required, level 1			
Evaluate/repair exterior vent caulking	All exterior BARD vents on "B" rooms	and 2			
		Per PPO 1st floor12/10/22, 2nd			
Evaluate reason for wet readings east side repaired		floor 12/23/22 lift required, level 1			
window sills	855, 854, 873	and 2			
		Per PPO EMS vendor pending PO,			
Install fresh air dampener actuators	852B, 872B	level 1 and 2			
Remove debris from mechanical room	852B (spray foam sealant)				

Corrective actions to be completed by AECOM	FISH
Remove old supply grill, return vent, blinds, ceiling tiles,	
window screen that belong to 2nd floor hallway per	
HFSP	856