

# Energy Efficient Indoor Air Quality (IAQ) Analysis

LaBella Associates Preliminary Findings Report #1 July 22, 2020

#### A) Summary of Progress to Date

As of July 22<sup>nd</sup>, work plans for (4) sites have been submitted, (3) of which have been approved. The table below outlines a summary of approved sites as well as sites yet to be submitted.

Work Plan #	Client Name	Facility Name	Facility Type	Work Plan Submitted	Work Plan Approved	Coordination with Customer/RFI	Site visit Completed
WP-01	NFTA	Buffalo Niagara International Airport	Airport	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
WP-02	City of Rochester	Blue Cross Arena	Arena	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
WP-03	The Rosenblum Companies	100 Great Oaks	Office/ Medical	$\checkmark$	$\checkmark$		
WP-04	NFTA	Metro Transportation Center	Offices/ Bus Station	$\checkmark$	$\checkmark$		
WP-05	City of Rochester	Library	Library	$\checkmark$			
WP-06	Webster CSD	School TBD	Primary School				
WP-07	OGS	299 Old Niskayuna	Office	$\checkmark$			
WP-08	North Tonawanda CSD	NT Middle School	Middle School	$\checkmark$			

Kickoff meetings have been conducted with clients with approved work plans. Requests for information have been submitted to the clients and the clients are currently in the process of sending utility information, construction drawings, submittal data, balance reports, BMS trends, and all other relevant information. LaBella is in the process of parsing through this information to gather relevant information relating to the study. Utility analyses have been completed for two sites.

LaBella has been in contact with several vendors regarding information on current filtration and UGVI products. Reviews of ASHRAE 62.1 and ASHRAE 52.2 ventilation procedures have been conducted. Current operating procedures for the buildings have been requestedspecifically pertaining to their compliance to ASHRAE-recommended safe operation methods pre and post COVID.

LaBella has a pending site visit planned for the Buffalo Niagara Airport and has already begun site visits at the Blue Cross Arena. Our team is currently reviewing potential filtration, UV and other solutions that might be applicable given the variable occupancy schedule and age of the systems.



## B) Study Findings to Date

A thorough review of current ASHRAE safe-operation methods has been conducted. No significant conclusions have been made yet as many sites are still gathering information.

## C) Lessons Learned / Barriers Encountered

Common Barrier Encountered: Not all air handling units are capable of accommodating higher MERV rated filters or space for UVs. Many AHUs do not have cooling. Some sites have out of compliance ventilation strategies. Solutions for AHUs will need to be developed on a case-by-case basis depending on the capabilities of the AHU.

#### D) Proposed Work Plan Adjustments

N/A

## E) Next Steps

- Submit remainder of work plans
- Kick-off meetings & gather documentation on facilities
- Send AHU data to vendors to determine recommended filtration/ UGVI types
- Continue site visits with surveys of existing mechanical systems & controls
  - o Determine potential air quality measures
- Perform energy calculations & feasibility analyses