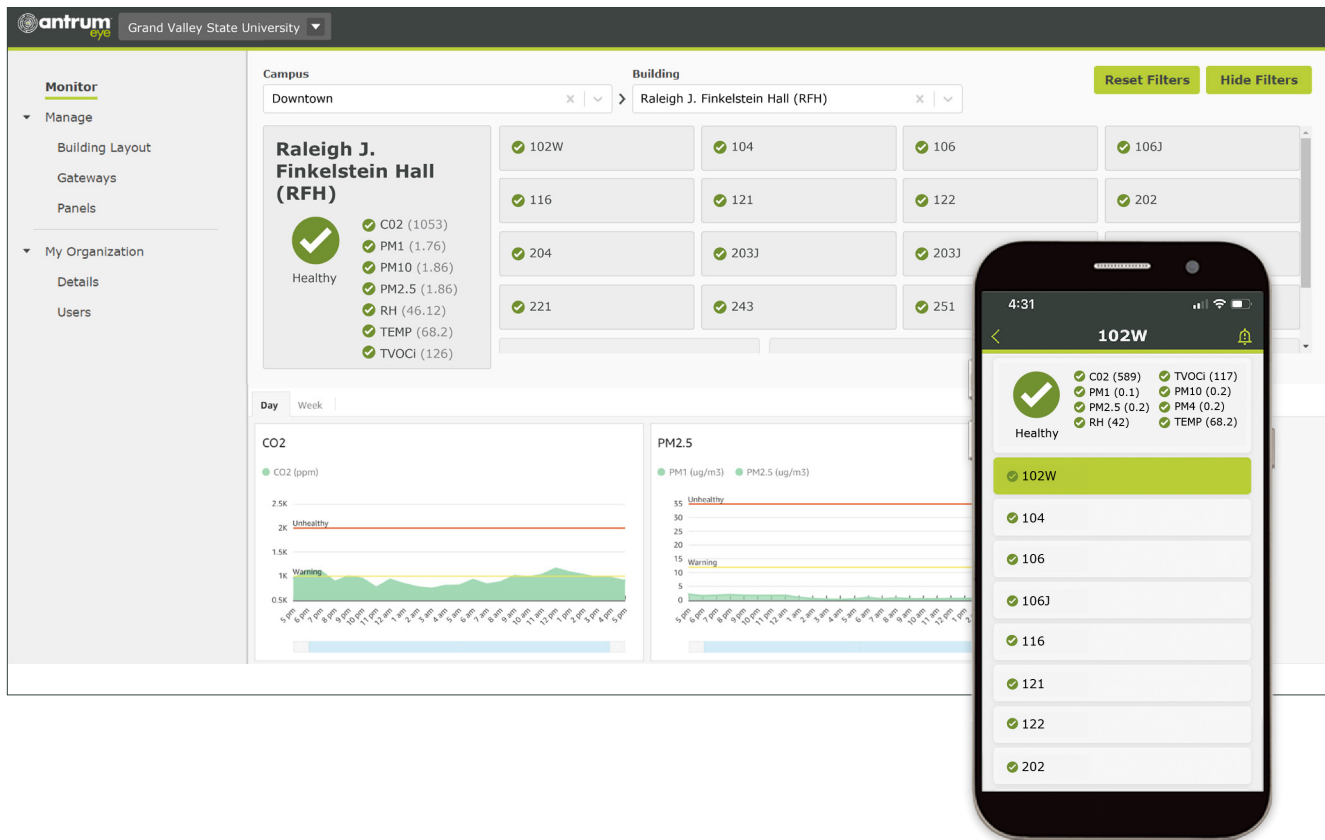# IAQP and DCV for Commercial Buildings

As we continue to navigate a more flexible/hybrid working environment, it's critical to manage both Indoor Air Quality and energy use. People want to feel safe when they're in the office and building owners want to save energy when employees work remotely.

Wall-mounted sensors lead to greater maintenance requirements and are often left uncalibrated. In contrast, the AntrumX™ centralized sensing platform has revolutionized the way facilities are managed, providing **more sensing with fewer sensors**.

AntrumX consolidates sensors for 16 individual zones into one device.

AntrumEYE™
Use Antrum's cloud-based software platform to encourage working in the office by demonstrating the healthiness of the indoor environment.

Benefits of Antrum's Centralized Sensing

Accuracy
Sensors require calibration. Using one sensor for 16 independent zones allows for more accurate data, cancels sensor drift, and leads to better control and a healthier indoor environment.

Maintainability
AntrumX uses only 6% of the number of sensors compared to wall-mounted sensing devices, allowing 16 zones to be calibrated simultaneously in less than 1 minute.

Scalability
The AntrumX platform was designed for future scalability by allowing facilities to increase their sensing capabilities with a 1-minute replacement procedure.

Total Cost of Ownership
The AntrumX platform saves nearly 60% when compared to wall-mounted sensing solutions, not including energy savings through more accurate and actionable data.

Total Cost of Ownership (TCO)								
Parameters			Initial Cost	5th Yr. Calibration	10th Yr. Replacement	15th Yr. Calibration	20th Yr. Replacement	TCO for 20 Years
32 Spaces What you should be doing.	RH, CO_2	Space-Mounted[1]	$16,000	$4,800	$16,000	$4,800	$16,000	$57,600
		AntrumX[2]	$15,700	$2,000	$2,000	$2,000	$2,000	$23,700
32 Spaces What is likely happening.	RH, CO_2	Space-Mounted[1]	$16,000	–	$16,000	–	$16,000	$48,000
		AntrumX[2]	$15,700	–	$2,000	–	$2,000	$19,700

[1]**Space-Mounted Sensors:** a. All costs exclude labor | b. CO_2/RH wall sensor estimated $150 per sensor to calibrate | c. CO_2/RH wall sensor estimated at $500 per room to owner
[2]**AntrumX:** a. All costs exclude labor | b. 5-year milestones represent the cost to replace the sensor pack(s) in the panel(s)

SAMPLE INSTALLATION

① **CONTROL PANEL**
Contains the sensor pack.

② **AIR ACCELERATOR**
Uses building differential pressure to create a vacuum.

③ **FACEPLATE**
Air samples are drawn from the faceplate to the control panel.

1/4" plenum- and NFPA-rated tubing with a maximum distance of 300'

By integrating AntrumX into your BMS, you have the ability to save energy by resetting the minimum ventilation rate and adjusting VAV boxes accordingly