



# GLOBAL IFS<sup>®</sup>

Global Integrated Flooring Solutions is the leading provider of fully integrated, premium raised access flooring solutions for high-performing, state of the art environments in every building.

## BENEFITS OF THE GLOBAL IFS SYSTEM

Cleaner air

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Flexible floor plans through the use  
of fully integrated modular power

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Increased mechanical efficiency

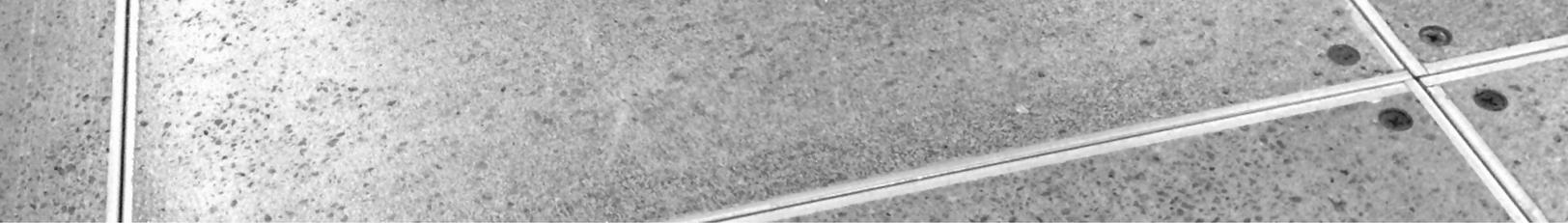
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*Global IFS combines flexible floor plans and cleaner air  
...the next generation of high performance buildings.*

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CASE STUDY

 **Global IFS<sup>®</sup>**  
INTEGRATED FLOORING SOLUTIONS



## THE OPPORTUNITY AND CHALLENGE

A quickly growing East Coast-based financial services firm was planning a new regional office to accommodate their expanded team. The firm had already identified a building that would suit their size and location requirements well, but they wanted to ensure that their new office space would be a truly state-of-the-art environment – one that would help them continue to attract and retain the best talent, and ensure that they would be able to easily modify their office space as they continued to expand in the future. In short, the new office space would require a complete renovation.

Both the financial services firm and the architects designing the renovation were already familiar with the benefits of raised access flooring, underfloor air distribution (UFAD), and Global IFS specifically. They knew that Global IFS' integrated offerings could provide the flexibility, sustainability, cost-savings and world-class feel that the firm sought to achieve – but they weren't sure that it would be possible to deliver UFAD within the 7" access floor space that the building and renovation parameters required.

Global IFS was up to the challenge.

## APPROACH

Global IFS worked closely with the architects and the contractors throughout the process, including writing the raised access floor specifications for the architect, consulting on design finishes, and engaging mechanical and electrical engineers on system requirements.

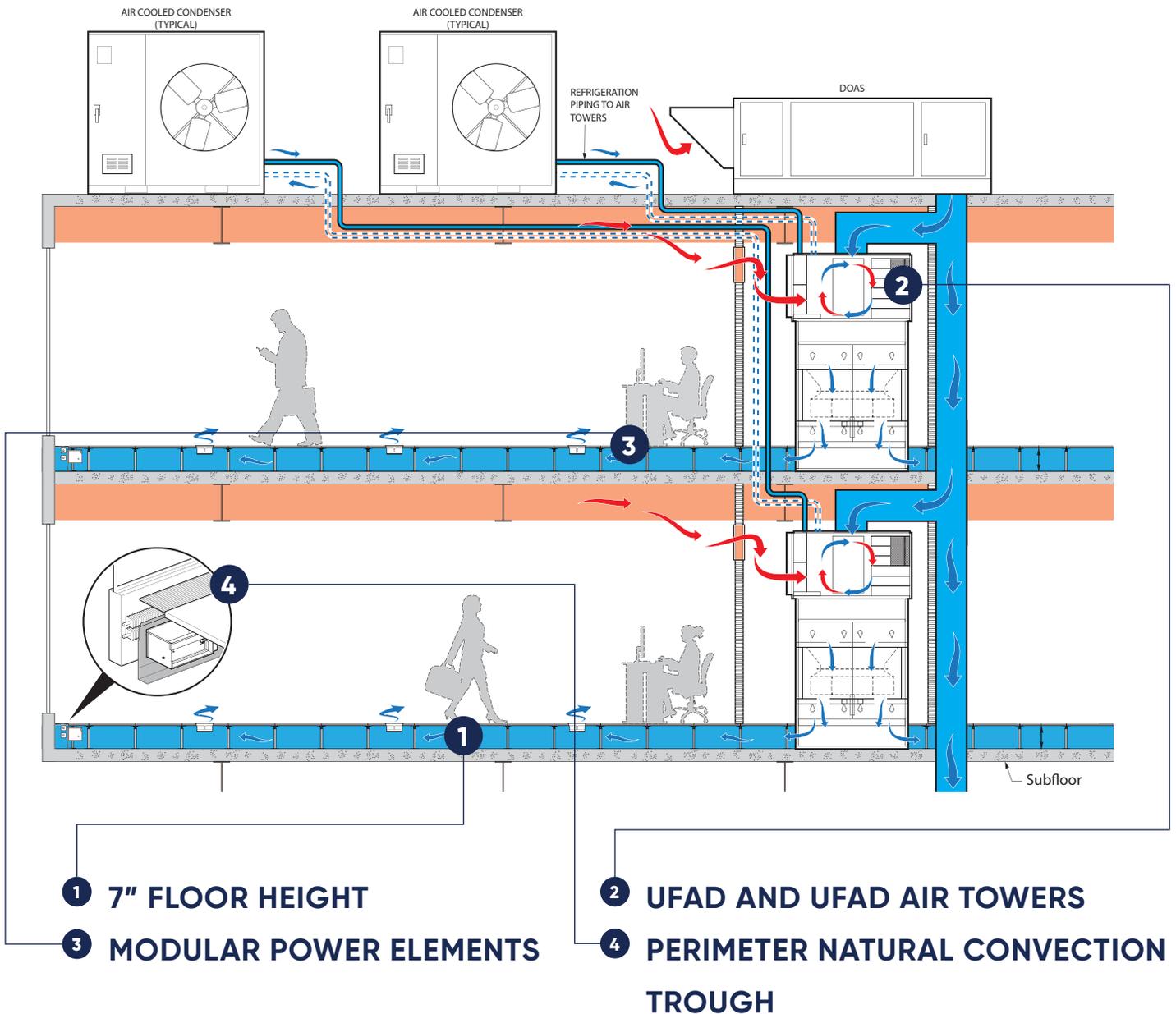
This collaborative approach helped to put all parties at ease, and ensured that the project moved smoothly every step of the way.

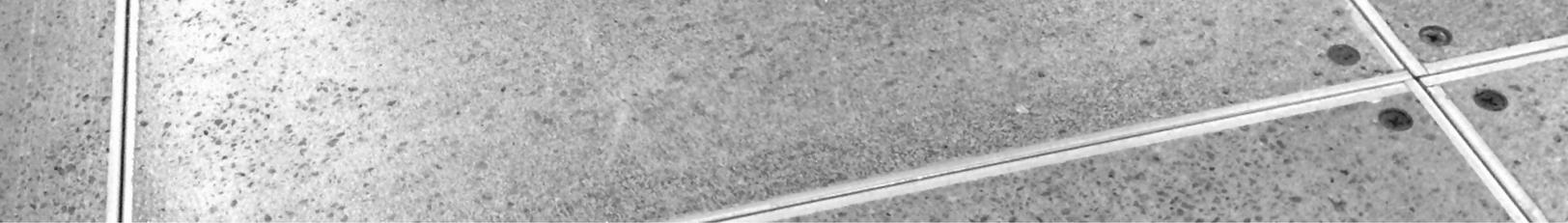
### SUMMARY OF ADVANTAGES

- **Cleaner Air:** Air towers enabled the use of low-profile raised access flooring with underfloor air in the existing building.
- **Flexibility** from modular power systems enable easy changes as business needs evolve.
  - + Increased employee productivity due to employee-controlled temperature
  - + Design freedom, with flexibility in design not constrained by electrical location
  - + Unique Business Brand: Many finishes available to define spaces and set the stage for a unique business brand

# SYSTEM COMPONENTS

The original 173,000 sq. ft. office space was a typical example of office buildings constructed in the 1970s: Functional and well-built, but hardly a cutting-edge environment. To create a space that was both beautiful and functional, Global IFS worked to design and implement an integrated solution comprising of a low-profile UFAD system and modular power.





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## 1. RAISED ACCESS FLOORING SOLUTION WITH 7" FINISHED FLOOR HEIGHT

The entire office space utilized a low-profile, 7" raised access floor.

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## 2. UFAD AND UFAD AIR TOWERS

UFAD Air Towers were strategically placed to maximize usable floor space, optimize air distribution and temperature control, and minimize underfloor ductwork. Individually adjustable and automated floor diffusers were added to conference rooms and private offices to enable easier temperature control and ensure increased occupant comfort and productivity.



### Space Saving From Vertical Air Towers:

Vertical Air Towers provided increased usable floor space due to reduced mechanical room size. When comparing use of Air Towers to a central air handling system, the mechanical room space was reduced by approximately 50%.

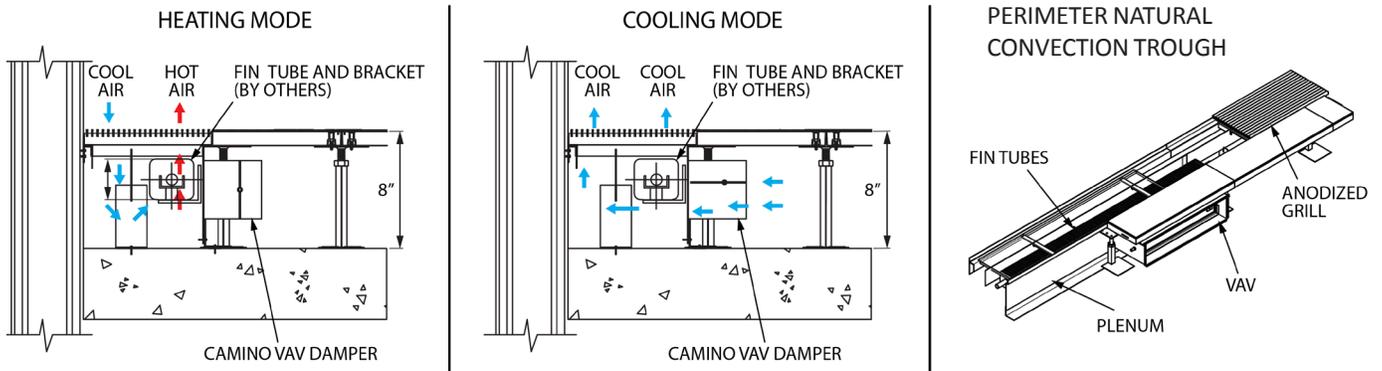


### 3. MODULAR POWER ELEMENTS

Underfloor modular power elements were installed to create a readily accessible power infrastructure that could be adjusted quickly and efficiently.

### 4. PERIMETER NATURAL CONVECTION TROUGH

The perimeter natural convection trough offers better energy usage and consistent temperature throughout the floor plate. Perimeter natural convection troughs with hot water fin tubes and modulating VAV dampers presented a more efficient method to manage the perimeter temperature of the space in the new building.



### 5. LVT, HPL AND CARPET TILE FINISH

Global IFS was able to assist with finishes for different types of spaces in the office, resulting in beautiful, durable finishes for the entryway and kitchen area, and carpeting throughout the office areas.

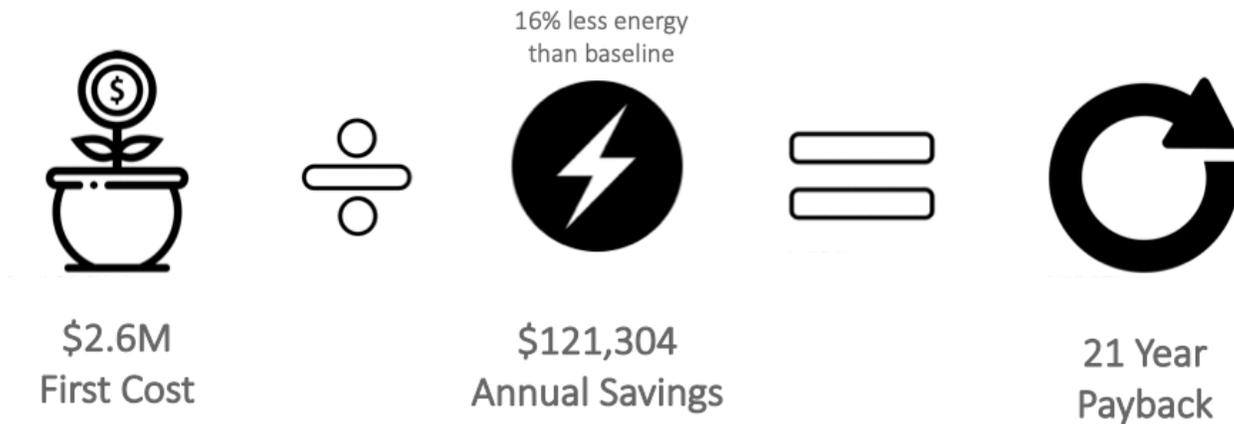
# RESULTS

BranchPattern, a building consultancy with experience in healthy, low-energy buildings, worked with the financial services company to analyze solutions that would create a healthy workplace environment.

They used a proprietary tool called happē (Health and Productivity Performance Estimator) to quantify the potential occupant benefits of a UFAD system compared to the base building VAV system. Energy modeling showed that UFAD not only saved energy, but also had a major impact on employee satisfaction and productivity.

BranchPattern noted an annual savings rate of 16% - or \$121,304 - from using the underfloor air system compared to the overhead system.

An underfloor air system utilizing Vertical Air Towers is one of the most effective approaches to ensure savings, in terms of both initial construction and building operating costs.



**The bigger impact: Improved worker productivity.**

Improved indoor air quality and local temperature control increase worker satisfaction and productivity.

## BRANCHPATTERN BUILDING ANALYSIS SHOWED:

- Improved local indoor temperature control is associated with productivity savings of \$1.08M.
- Positive improved indoor air quality performance is associated with productivity gains of \$3.6M annually. These savings are calculated based on the company's 1000 employees, with an estimated savings of \$3,600 per employee annually. This results in a conservative 5% estimated improvement in productivity. These savings are derived from average salary value based on level of employees, lower absenteeism and better cognitive performance.
- Reduced virus transmission from improved indoor air quality and circulation translates into 16.7% reduction of infection risk.

### An Alternative Approach

		
Improved Local Temperature Control 	Increased productivity	\$1.08 M
Positive IAQ Perception 	Improved performance	\$3.6 M
Reduced Virus Transmission 	Reduced rates of influenza	16.7% reduction of infection risk

## RESULTS SUMMARY

- Cleaner air & flexibility achieved with significant quantitative results as outlined by BranchPattern, a third-party analyst
- Mechanical room space was reduced by approximately 50%
- Increased flexibility to adapt to future business changes
- Reduction in energy use is expected to be 16% compared to overhead systems
- Significant savings due to improved worker productivity
- Significant savings in worker performance
- Reduction in infection risk

# A SOLUTION FOR EVERY BUILDING



## Low Profile Series

Ultra low profile flooring system with modular power and cable management.

## Flex Series

Highly customizable solution that can include modular power, cable routing, WiFi, and more.



## Integrated Series

Comprehensive solution that can provide all the benefits of the Flex Series in addition to UFAD and other underfloor systems.

## ARE YOU READY TO MEET THE FUTURE?

We're committed to bringing the exceptional environments of the future to every building—today. Whether you're a developer, architect or engineer, and whether or not you're familiar with raised access flooring, we'll work collaboratively with your team to meet your particular needs and budget, and to deliver the solution that's ideal for your particular building.

Interested in learning more?