

RETURNING TO SHARED SPACES AND PLACES



Four steps to enhanced safety, trust and optimization



RWDI helps ensure new and existing facilities are designed to maximize occupancy in shared areas and optimized to keep air clean

Step 1: Safety check

- Navigate the flood of information from every sector
- Safety guidance and checklists
- Cleaning and occupant behavioral practices
- Operational procedure review and enhancement

Step 2: Safer to stay

- System optimization, commissioning and recommissioning
- Implementation of targeted barriers or modified entryways, lobbies, corridors or travel paths
- Dilution, filtration, stratification and purge plan reviews
- Education development
- Testing and monitoring of air and water quality
- Surface testing for pathogens

Step 3: Investing in safety

- Beyond steps 1 and 2, raising the bar on ventilation performance is crucial. Read on to learn more.

Step 4: Beyond the crisis

- New expectations of safety, health and well-being will include comfort, light, noise, and biophilic practices. Certification, including WELL and Fitwel, will take greater prominence.

▶ Investing in safety—Optimized air quality and space

Just like our lungs, building ventilation systems are designed to provide us with fresh, healthy air. In a pandemic world, existing and potential tenants will want to know their air is clean and healthy, and that their building's ventilation system does not contribute to the spread of virus.

For buildings that need to minimize occupant risk—and maximize net-leasable, operational and occupiable areas—effective ventilation design is more critical than ever. Our leading experts and scientists use state-of-the-art wind tunnels, proprietary tools, and computational fluid dynamic (CFD) simulations to rapidly and accurately understand a wide array of factors and options to ensure the best possible configuration of our clients' ventilation systems.

RWDI has supported the design of critical ventilation systems for decades. Whether protecting a piece of art in a museum, controlling contaminants in industrial facilities, sizing smoke management in transit stations, or preventing contamination in labs and healthcare facilities, managing air flow to prevent contamination is crucial to safe operation. That expertise is in RWDI's DNA.



We judge success with metrics that go beyond a picture of air flow. Using advanced means, we quantify probabilities of cross contamination, predict the propagation of a cough or sneeze, determine viability of filtration or UVGI installations, and quantify ventilation efficiency or contaminant removal effectiveness.

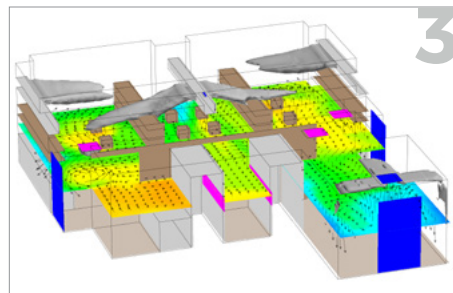
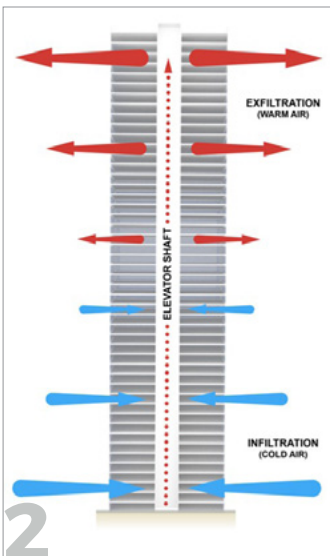
In a changed world, leading owners and operators will demonstrate best-in-class performance typically reserved for more specialized facilities like labs and healthcare centers. We bring valuable, marketable, science-based approaches that are increasingly critical in a world adapting for safety in the “new normal” while maximizing competitive position.

Our approach

Studying the building: We begin with counsel, learning clients’ needs and objectives and offering advice based on past successes. When reviewing the driving forces of internal ventilation, RWDI wields unparalleled tools to diagnose air movement in buildings. Using our wind tunnels, we measure external pressures driving infiltration or causing re-entrainment. We also use network-flow modeling to assess airflows caused by uncontrolled pressures and air movement, including stack effect.

Working with clients: Micro-climate pressures and flows become critical factors for interior-space ventilation study using CFD. We work collaboratively with development or building operations teams to understand, test and rate options for ventilation effectiveness including natural ventilation, HVAC systems, furniture layout, occupant densities, and more.

Increasing safety and occupant density: Our insights quantify and contrast performance, helping to minimize occupant risks while maximizing occupancy, production and performance. RWDI provides best-in-class science and engineering and trusted marketable metrics that provide comfort and a leading edge on safety.



1. Inside one of RWDI's wind tunnels.
2. Conceptual image of normal winter stack effect airflows in a building.
3. Internal ventilation studies with CFD.