



Opus Vitae Construction Indoor Air Quality Briefing for Health-Conscious Legacy Homes

Indoor air quality (IAQ) directly impacts long-term health, cognitive clarity, and comfort —especially in tightly sealed, energy-efficient homes. For Family Offices and discerning homeowners, poor air quality undermines wellness and can degrade heirloom materials. Opus Vitae homes are designed with clean, balanced, and continuously refreshed indoor air.

1. High-Efficiency Balanced Ventilation¹

- ERV/HRV systems with >90% heat recovery and MERV 13+ filtration — continuously supply clean air while removing moisture and contaminants
- Ducted delivery customized by room — ensures quiet, even distribution of fresh air
- Balances CO₂ levels during sleep — supports cognition and nighttime repair

2. Airtight Enclosure with Triple-Pane, Thermally-Broken Windows²

- Airtight construction with continuous air barriers — blocks unfiltered outdoor air and pollutants
- Triple-pane assemblies with insulated frames — improve temperature stability and reduce condensation risk

3. Low-Emission Interior Materials³

- Zero-VOC paints, formaldehyde-free cabinets, low-emission flooring — minimize indoor chemical load
- Third-party certifications and material vetting — ensure healthy air from day one

4. Humidity Control for Wellness

- ERVs with integrated dehumidification — maintain RH between 40–60% year-round

- Protects human health, finishes, and sensitive materials — especially during shoulder seasons

5. Local Exhaust in High-Emission Areas

- Range hoods, bath fans, and laundry exhaust — remove localized moisture and pollutants at the source
- Vented to exterior, not recirculated — prevent buildup of volatile or humid air

6. Filtration & Air Quality Monitoring

- Whole-home filtration at MERV 13–16 or HEPA — captures fine particulates, allergens, and wildfire smoke
- IAQ sensors for CO₂, VOCs, PM_{2.5} — enable real-time performance tracking and feedback

Who We Are

Opus Vitae builds homes designed for health, clarity, and legacy. Indoor air quality is engineered from the ground up.

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¹ <https://www.zehnderamerica.com/why-ventilation>

² <https://buildingscience.com/documents/digests/bsd-102-understanding-air-barriers>

³ <https://www.epa.gov/indoor-air-quality-iaq/indoor-air-quality-building-design-and-construction>



Vitadurra Standard White Paper

Indoor Air Quality: Wellness Through Fresh, Filtered Air



**Indoor Air Quality: Wellness
Through Fresh, Filtered Air**

