



Opus Vitae Construction

Water Resiliency Briefing for Legacy Estates and High-Value Properties

Water is both essential and potentially devastating. In luxury homes and estate properties, water intrusion or mismanagement can lead to rot, mold, structural degradation, and major insurance claims. Opus Vitae designs each home with proactive water resiliency—so that weather, groundwater, and plumbing systems are all controlled, not feared.

1. Foundation Drainage & Capillary Breaks¹

- Crushed rock and vapor barriers below slab — interrupt capillary rise from ground moisture
- Perimeter drains with cleanouts and daylighted discharge — divert water before it reaches the structure
- Exterior waterproofing membranes and drainage mat systems — prevent lateral intrusion and hydrostatic pressure

2. Sloped Grading & Stormwater Control

- Site grading pitched away from foundation — channels rain and runoff safely downslope
- Gutter and downspout systems connected to dry wells or bioswales — prevent pooling and splashback

3. Roof Water Management

- Oversized gutters with leaf screens — protect siding and foundations from overflow
- Ice and water shield underlayment in vulnerable zones — adds a secondary barrier against intrusion

4. Interior Leak Detection & Prevention²

- Whole-house leak detection and auto shutoff — stops water damage before it escalates
- Point-of-use sensors in wet areas — monitor appliances and plumbing for early warning

5. Plumbing & Mechanical System Redundancy

- PEX-A piping with expansion heads — resists freeze, corrosion, and mechanical failure
- Sump pumps and backup drains in low points — mitigate water accumulation in vulnerable areas

6. Water-Managed Wall Assemblies³

- Vented rainscreen cladding — allows drying and prevents trapped moisture
- Proper flashing and WRB integration — protect critical junctions from intrusion

Who We Are

Opus Vitae builds homes where durability meets intelligence. Our water-resilient strategies protect structure, systems, and interior assets.

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¹ <https://buildingscience.com/documents/digests/bsd-103-understanding-basements>

² <https://www.pureinsurance.com/resources/guide/water-leak-prevention-guide>

³ <https://basc.pnnl.gov/resource-guides/water-managed-wall-assemblies>



Vitadurra Standard White Paper

Water Resiliency & Humidity Control: Protecting What Matters Most



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