

**Providence Medical Center
Everett, WA**



- Aridus® Concrete**
- ▶ Reduces risk of excess moisture vapor
 - ▶ Addresses mold and mildew concerns
 - ▶ Flooring can be installed faster

Project Team

- ▶ Aridus® Licensee/Concrete Supplier: Stoneway Concrete
- ▶ General Contractor: Mortenson Construction

Project Highlights

Moisture in concrete slabs can cause significant challenges when flooring is installed. Even when epoxies are applied over the slab to protect vinyl floors and carpet from moisture issues like buckling, salt formation, and mold can still occur.

For a better solution, Stoneway Concrete and Mortenson Construction turned to U.S. Concrete's Aridus® Rapid Drying Concrete when they were building the new \$300 million Cymbaluk Medical Tower at the Providence Regional Medical Center in Everett, WA. The mix was used in portions of the project that impacted the critical path schedule to reduce drying time and the risk of excess moisture vapor in concrete slabs. For the Stoneway and Mortenson team this meant flooring could be installed more efficiently and effectively and meet the project's schedule demands while providing the highest quality finishes. Completed five months ahead of schedule, the 12-story Cymbaluk Medical Tower is the largest expansion project in Providence's 100-plus year history.

Aridus® Application Included:

- ▶ Two concrete placements covering more than 16,000 SF
- ▶ Patient related areas on the construction critical path including: surgery suits, lobby areas, and corridors

The Full Project Included:

- ▶ A 713,644 SF medical tower housing state-of-the-art technology
- ▶ 328 ICU and ACU beds and 28 surgery suites
- ▶ 60,000 SF of diagnostics and treatment space for an acute care hospital
- ▶ A 60,000 SF new Emergency Department

Stoneway Concrete Speaks Out on Aridus®

"The problems with excess moisture in concrete starts with low-VOC adhesives. They're water soluble, so the moisture in the concrete can migrate to the flooring. This has led to liability issues and cost overruns.

"Aridus addresses these moisture problems from the very beginning. Aridus reduces drying and the risk of excess moisture vapor in concrete slabs. The result – flooring can be installed much faster and more effectively."

– **Greg McKinnon** Operations Manager – Stoneway Concrete

Aridus® At-A-Glance

Problem: Floors Gone Bad

Aridus® Rapid Drying Concrete is the first ready-mix concrete solution for preventing moisture-related floor covering failures, an industry-wide problem that costs millions of dollars annually in damage, downtime, repair and replacement.

Impacts of Flooring Failures

- ▶ Construction Delays
- ▶ Cost Overruns
- ▶ Moisture Mitigation
- ▶ Environmental Hazards
- ▶ Liability Issues
- ▶ Damaged Reputation

Options:

Today's options attempt to seal in the moisture, but none get rid of the problem within the concrete, nor do they address RH. In addition, these costly and late stage treatments do not prevent the moisture problems from the beginning.

Why Aridus®?

Aridus® Concrete is a scientifically engineered Rapid Drying Concrete that consumes excess water, thereby preventing moisture problems from the very beginning by accelerating the concrete drying time.

- ▶ Eliminates moisture issues
- ▶ Eliminates costly and time-consuming moisture mitigation systems or extended drying time, there by offering schedule savings
- ▶ Eliminates moisture related environmental hazards
- ▶ Superior performance as compared to conventional concrete:
 - High-early strength
 - Superior compressive strength
 - Improved drying shrinkage properties
 - Very low permeability
 - Significantly reduced curling
- ▶ Your insurance policy

