



SNOHOMISH LIBRARY: A CASE STUDY

"Our standard is Milliken - it streamlines our projects. Their meaningful partnership and effective site-related flooring solutions allow us to complete projects for 40 percent less cost and with a higher quality product - because that is what Milliken provides."

- Brian Rush, Facilities Manager, Sno-Isle Libraries

Milliken™



COLOR FIELD - Colorfield in COL120-202-65 Sulfur Spring (foreground) and COL195-75-141 Cobalt Green (background), ashlar tile installation

A community doorway to reading, resources and lifelong learning, Sno-Isle Libraries has a defined mission for Snohomish Library to be an inspiring cultural center for its 185,000 annual patrons. A guiding principle in doing so, responsibly stewarding the district's financial resources.

This case study details how Sno-Isle Libraries partnered with Milliken to save more than \$130,000 on beautifully designed mixed-material flooring in a high-moisture environment, without expensive and time-prohibitive moisture mitigation products.



WOOD LVT - Cherry in CHE17, traditional plank installation (foreground), **FORMWORK** - Formwork in FWK231 Doric and FWK141 Apple, monolithic tile installation (mid-ground) and **COLOR FIELD** - Colorfield in COL120-202-65 Sulfur Spring (back left) and COL195-75-141 Cobalt Green (back right), ashlar tile installation

"Milliken floor covering solves the root cause of subfloor moisture in the simplest, most reliable way: through the carpet itself."

- Michael Eckert, Director of Strategic Marketing, Milliken



COLOR FIELD - Colorfield in COL195-75-141 Cobalt Green (foreground) and COL120-202-65 Sulfur Spring (background), ashlar tile installation

THE CHALLENGE

Snohomish Library has an unenviable history of flooring failure. Subfloor moisture, which can be caused by water table fluctuations as well as inadequately cured concrete, wasn't adequately addressed when the facility was built, and PVC-based modular carpet and cork flooring were installed. While a vapor barrier was installed beneath the concrete slab to account for Washington's high water vapor, subfloor moisture

quickly took its toll, adversely reacting with the adhesive, and causing the floor to buckle and peel in only a few years. With expired warranties, the organization had no option but to begin costly repairs. An additional resin vapor barrier was needed on top of the subfloor to remedy the 23,000-square-foot floor, closing the library from community use for eight weeks.



Brian Rush joined Sno-Isle Libraries soon after, and when it became time to replace the floor once more – the new resin vapor did not last the full 10-year warranty – he turned to Milliken.

Brian was committed to preventing all future subfloor moisture issues from the onset of the project. To fully understand his particular environment, Brian conducted moisture probe and core testing. High levels of

humidity were revealed, which explained the poor performance of the previous flooring despite the high cost of preparation to mitigate the moisture. Core testing revealed a compromised vapor barrier explaining why subfloor relative humidity levels varied throughout the space.



COLOR FIELD - Colorfield in COL195-75-141 Cobalt Green, ashlar tile installation

THE SOLUTION

After researching multiple flooring options, Brian discovered that Milliken modular carpet, with a unique open-cell cushion backing, were the only solutions that addressed the initial cause of subfloor moisture issues.

Milliken's moisture vapor-wicking, open cell cushion-backed modular carpet enables water vapor to evaporate before it ever condenses into damaging liquid water - preventing the conditions that lead to flooring failure.

As Site-Related Solutions, Milliken modular carpets:

- Do not require moisture testing, as they can withstand any levels of relative humidity (RH) and pH
- Eliminate the need to install expensive moisture mitigation solutions
- Prevent the conditions conducive to mold and mildew growth in high moisture environments
- Save valuable time and costs associated with extensive subfloor preparation and the resulting maintenance required from blasting concrete indoors
- Carry full warranties, removing the risk of flooring failure



The cost savings for Snohomish Library were remarkable.

- An estimated \$110,000 on labor and materials alone, as well as an additional \$20,000 on furniture relocation, was saved by simply not having to remove and install another resin vapor barrier.
- Strategic mapping and a variety of Milliken adhesives enabled Brian to effectively address moisture issues without increasing their budget.

While Sno-Isle Libraries conducted moisture testing to learn more about their space, Milliken modular carpet tiles are true Site-Related Solutions and do not require any moisture testing to validate their lifetime warranties. Instead of viewing floor preparation as a necessary prerequisite of installation, Milliken modular carpet eliminates the cost and time of flooring prep - including moisture testing, adhesive removal and moisture mitigation.



QUADRUS - Orbit Brush in ORT23-27 Converge, monolithic tile installation (foreground), **WOOD LVT** - Cherry in CHE17, traditional plank installation (middle) and **CENTRO** - Singular in 316 (inset in background) monolithic tile installation

THE DESIGN

Since Milliken's entire portfolio of modular carpet provides the same moisture solution benefits, Brian wasn't limited in his flooring selection. Acknowledging the interplay between architectural and design elements, he looked to the existing architectural features - including curves, columns and ceiling beams - for inspiration.

- Applewood LVT, selected for the high-traffic entrance and lobby, was installed in an oval shape to mirror the architectural elements of the ceiling.
- Color Field plank carpet mimics the grain aesthetic in the LVT, but with an open-cell cushion backing for enhanced comfort underfoot and noise reduction. The collection's creative color options inspired Brian to inject color in the children's area, and Milliken's high-resolution print technology gives him assurance that he will be able to order the same product five years down the road.
- Quadrus entry modular carpet was installed at entrance vestibules to capture dirt and debris from shoes and book carts, as well as reduce noise.



WOOD LVT - Cherry in CHE17, traditional plank installation

In a time where many libraries are moving towards concrete for aesthetic reasons, Brian believes that LVT is a perfect alternative with an easy to clean, resilient surface that also offers noise reduction benefits.

“Cherry LVT combines the ‘wow’ factor with high durability and improved acoustics. It always looks clean - even when it’s time for maintenance,” Brian shared. “It is holding up tremendously against foot, cart and wheel traffic, which often brings in rocks and sand.”

THE FEEDBACK

Milliken supported Sno-Isle Libraries through the entire scope of the project: from concept, design and material selection to ordering and installing the final piece of flooring. Brian’s meaningful experience with Milliken has only solidified his confidence in the global manufacturer. With Snohomish Library complete, he is now managing two projects that Milliken will floor: a main office renovation and a demonstration library in an underserved neighborhood.



“Knowing that Milliken flooring solutions allowed me to save my company more than \$130,000 in installation preparation is a fantastic feeling: like you’re a real value and asset to your organization; that you’re fulfilling your job responsibilities in meaningful ways.”

- Brian Rush, Facilities Manager, Sno-Isle Libraries



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On the cover: **COLOR FIELD** - Colorfield in COL120-202-65 Sulfur Spring (left) and COL195-75-141 Cobalt Green (right), ashlar tile installation

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