



WSU Wine Science Center Richland, WA

The Ste. Michelle Estates WSU Wine Science Center is located along the Columbia River in Richland, the heart of Washington wine country. This is a unique, landmark project that now houses one of only two Enology/Viticulture research programs in the nation. These are programs where the science of winemaking and the cultivation of grapevines is studied. The building includes a combination of traditional classroom space, research labs, a large event space, and an industrial space to be used as a working winery where the grapes are crushed, fermented, stored, and bottled right on site.

Rustin Hall, ALSC Architects, and principal-in-charge of this project stated, “The organizing thought for the project was ‘rough to refined, from field to barrel.’ This comes from the entire process of making wine from a natural fruit and refining it to something that is highly prized. We wanted to express that notion in the materiality of the building.”



To create the rough to refined aesthetic they wanted, Hall found concrete masonry block (CMU) to be the best choice. “We studied specific color and texture options, with concrete masonry offering literally dozens of color, texture, and finish options,” Hall added. “Block can have a very highly refined, polished look or a very rugged look, depending on what you ask the manufacturer for.”

Beyond its natural beauty, broad palette of colors, variety of finishes, and cost effectiveness, Hall said that they chose CMU because it is also incredibly durable, easy to maintain long-term, provides load-bearing and lateral building support, and offers exterior and interior finish options—all in one material that is locally available (not only the material but also the labor to install it). “Finding a material that can do all these different types of things from a concrete finish standpoint was ideal,” said Hall.

Concrete masonry was used for load-bearing walls for the majority of the building. “Concrete masonry is ideal for bearing walls and for shear walls for earthquake resistance. In one wall you get both of those structural qualities,”





The other design concern was creating a building that would land gracefully in its setting in the beautiful high desert. “We wanted to draw on those colors, the sand and earth tone types of colors and the green sagebrush and other native materials to have the structure blend naturally with the landscape,” said Hall. To achieve the desired effect, Hall used three types of block faces—ground, split, and smooth face. These concrete blocks were carefully set into intricate organic patterns with colors and textures mirroring the unique geology of the Tri-Cities desert. “You can see the layering and patterning in the concrete block in some areas where it’s intentionally calling back to the layering process of sand over time as it compresses into sandstone,” said Hall. There are areas of texturing on the building where ALSC used all three types of block textures and two different block colors. “When you think of just the three types of block, you get three different expressions on the surface texture,” said Hall. “And then when you blend different colors with varying textures you can get dozens of different looks out of just a handful of materials.”

The finished structure is a \$23 million, 40,000 square-foot building that utilizes over 43,500 concrete masonry units for structural integrity and modern aesthetic appeal. It appears to rise out of the sagebrush landscape, overlooking vertical rows of grapevines below. “The feedback on the building is very positive,” said Hall. It is LEED® certified and has received the 2017 “Best on the Block” award from industry for excellence in masonry design. The building has become a perfect home to faculty and researchers who are educating future wine industry leaders and conducting research that improves the grape-growing and winemaking process. It is also a sought out destination for those in the general public looking to learn more about winemaking.

Hall explained. “Historically, of all the wall assemblies we might consider, block is always very competitive when compared to a framed wall with cladding system or rain screen system. At the end of the day, we are always looking at block as a very cost-effective option. For educational and municipal projects it is still a go-to for a very economical wall assembly.” Beyond the challenge of designing for the multiple functions of the wine center, another design challenge arose in trying to unify the aesthetic of the larger campus at Washington State University (WSU). The Wine Center is part of the WSU Tri-Cities campus, which is an eclectic mix of buildings that range from the 1960s to modern day. “There are a lot of styles and types of materials on the campus,” said Hall, who wanted to create a consistent material palette for future buildings on the campus.

CREDITS

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