Horizon Shaper 2024

Bellingham

Western Washington University, Kaiser Borsari Hall

- DURATION

  Ongoing since 2020

- POPULATION 2024

  96,000 (Growth rate 1%)

- URA SCOPE

  ECOLOGY. Green Urbanism.

- TOPICS

  ENVIRONMENTAL RESPONSIBILITY
  COLLABORATION
  INNOVATION
  EDUCATION

- MAIN ACTORS

  Perkins&Will
  Western Washington University

TheBay Urban Visioning Awards

As a member of the Bellingham community, Western Washington University (WWU) has long been a beacon of opportunity and ambition, offering an impressive range of academic programs. As Washington's third-largest public university, WWU has forged meaningful partnerships with community colleges and centres across the Puget Sound and Central Salish Sea regions.

These collaborations have transformed dreams into reality for families statewide, making higher education more accessible and impactful.

But WWU is not content with resting on its laurels. A bold new chapter in its story is unfolding—a chapter where innovation and sustainability take centre stage.

The university's new 5,000-square-meter Electrical Engineering and Computer Science Building is a marvel of modern design and sustainability. It's not just another building—it's a statement. As the first higher education STEM facility in the United States pursuing Zero Energy and Zero Carbon certification through the International Living Future Institute (ILFI), it exemplifies WWU's commitment to a greener tomorrow.

Crafted from mass timber and cross-laminated timber (CLT), the structure meets the cutting-edge "smart building" standards identified by ILFI.

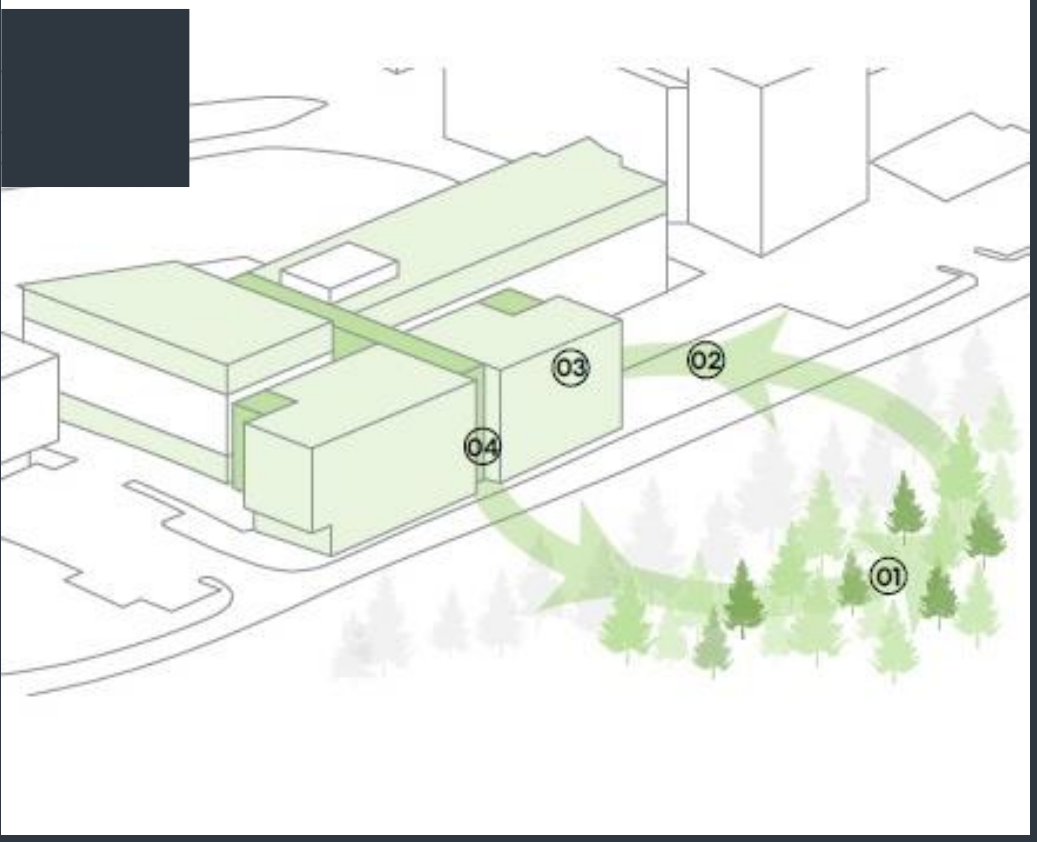
This innovative design aligns perfectly with WWU's vision to become the state's first carbon-neutral university campus, setting a precedent for institutions nationwide.

Perched between the vibrant main campus and the tranquil native forest arboretum, the building is more than a structure—it's a bridge. The warm wood interiors contrast beautifully with the charred wood siding, creating a harmonious blend of nature and modernity. Inside, spaces like the multicultural lounge, glass-clad staircases with sweeping campus views, and biophilic design elements invite collaboration and connection.

This facility is more than an academic space; it's a collaborative hub where industry leaders, students, and faculty converge to innovate and inspire. It reflects WWU's dedication to fostering diversity, inclusion, and groundbreaking ideas in STEM fields, addressing the evolving needs of Washington State industries.

This transformative project is the result of an extraordinary team effort. From the visionary leadership of Perkins&Will to the expertise of design consultants and Mortenson Construction's execution, every detail reflects a shared commitment to excellence.

At WWU, the future isn't just imagined—it's built.



Challenge

Western Washington University (WWU) and the city of Bellingham face a pressing challenge: how to respond to the growing demand for science, technology, engineering, and mathematics (STEM) education in a rapidly changing world. This challenge reflects a broader statewide commitment to expanding access to high-quality STEM opportunities, ensuring that education evolves to meet the needs of a diverse and dynamic population. The increasing demand for STEM professionals calls for a rethinking of how university education can foster collaboration and innovation. Traditional approaches are no longer sufficient; instead, education must adapt to provide students with the tools to navigate and contribute to an ever-advancing technological landscape.

At the same time, there is a critical need to address sustainability and environmental responsibility, ensuring that progress in education does not come at the expense of the planet. The integration of these principles into the learning experience is essential for shaping future leaders who can balance technological advancements with ecological stewardship.

Furthermore, the workforce of tomorrow will require not only technical expertise but also adaptability, teamwork, and inclusivity. Preparing students for these demands is a challenge that WWU and Bellingham are determined to meet, recognizing the importance of equipping individuals with the skills and perspectives needed for a sustainable and equitable future.

Solution Proposed

The design of Kaiser Borsari Hall responds to the increasing demand for STEM education at Western Washington University (WWU) and aligns with Washington State's commitment to expanding opportunities in science, technology, and engineering. Serving as the new home for the Electrical Engineering and Computer Science Departments, the facility is conceived as a space for multidisciplinary collaboration and innovation. Dedicated teaming areas and flexible office spaces aim to foster an environment where students can engage in cutting-edge learning and research.

Equipped with technology-rich laboratories and maker spaces, promotes teamwork and creative problem-solving. Adaptable furniture and writable surfaces enhance collaboration, ensuring the facility meets the needs of modern educational practices.

Kaiser Borsari Hall reflects Western Washington University's commitment to sustainability and campus integration. Once a parking lot, the site now features biophilic design with native and climate-adaptive plants, creating a habitat that links Sehome Hill Arboretum to the campus and promotes environmental stewardship.

As a hub for education, industry, and innovation, Kaiser Borsari Hall reflects WWU's dedication to preparing students for the evolving demands of the workforce while leading the way in sustainability and inclusivity.

https://thebayawards.com/

Impact

Kaiser Borsari Hall: A Model of Sustainable Innovation

Kaiser Borsari Hall at Western Washington University redefines sustainability in education, functioning as a "living laboratory" where students of Electrical Engineering, Computer Science, and the Institute for Energy Studies learn amidst cutting-edge green technologies. The building itself exemplifies innovation with advanced energy solutions like infrastructure for on-site battery storage, achieving an 82% reduction in energy use. Over 75% of its roof is dedicated to solar panels, while the mass timber structure delivers a remarkable 63% reduction in embodied carbon, creating a biophilic environment that enhances occupant well-being.

The facility's sustainable ethos extends to water conservation, achieving a 78% reduction in outdoor water use. Kaiser Borsari Hall is not just a building; it's a comprehensive educational tool showcasing the tangible impacts of sustainable design and renewable energy technologies.

Design as Connection and Inspiration

The elegant yet impactful mass timber design juxtaposes warm, inviting interior finishes with resilient **shou sugi ban** exterior cladding—a traditional Japanese technique of charring wood to enhance its durability, fire resistance, and insect repellence while creating a striking, textured appearance. Horizontal windows and expansive glass walls bathe the interior in natural light, fostering an open, airy atmosphere. These features not only illuminate the space but also create seamless visual connections between the classrooms and the surrounding arboretum, enriching the relationship between students and their natural environment while reinforcing the building's commitment to sustainability and biophilic design principles.

Driving Change Beyond the Campus

The project's influence reaches far beyond WWU, setting a precedent for sustainable construction in higher education. Its success spurred changes in Washington State's funding requirements, expanding compliance options to include energy and carbon-focused certifications through the International Living Future Institute (ILFI). Kaiser Borsari Hall demonstrates that sustainable design can catalyse policy shifts, inspire learning, and pave the way for a greener future.