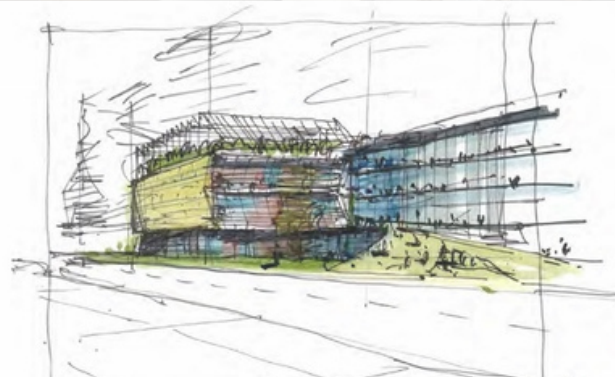
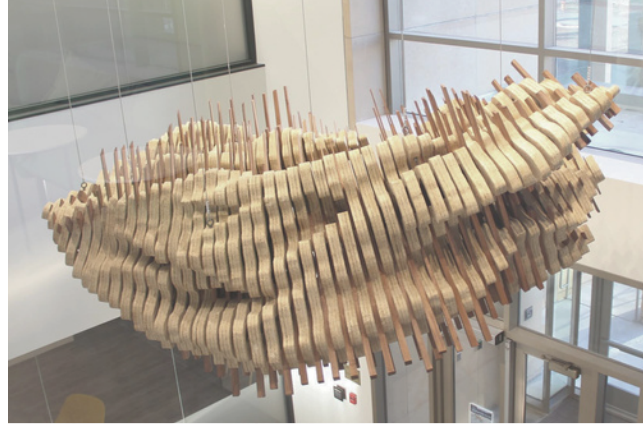


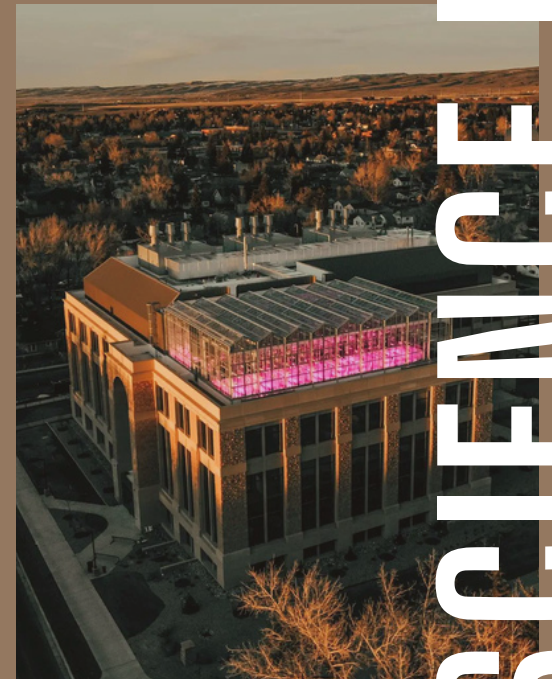
LIGHTING



Additional Information

- Concept changed from modern architecture to stonework, to match campus aesthetic
- Sourced limestone exterior out of Utah
- Designed around LEED Silver Standards
- ROI is less than 10 years
- Art & sculpture was integrated into construction costs
- Polished concrete flooring was driven by the custodial staff due to its high durability, easiness to clean, and the reduction of toxic adhesives

SUSTAINABLE DESIGN



SCIENCE INITIATIVE

In the Science Initiative Building there is a high amount of windows to improve passive heating throughout the structure. On the southern facade, Low E glazing is applied to all windows to optimize solar heating and cooling. The Glazing is applied at different levels throughout the structure to maximize solar efficiency. In addition, the building's architectural layout maximizes natural light exposure while minimizing heat gain, contributing to a more sustainable and comfortable indoor environment



This structure is designed in a open layout to maximize the natural light capabilities of the structure. It was designed this way to accommodate the open layout classrooms and collaborative work environments throughout the building. This approach enhances both the ambiance and the productivity of the spaces, creating an inviting and dynamic atmosphere for occupants.

87% of Energy is Recovered
3 Advanced Energy Recovery Units
13% Heating Costs in comparison to pre-existing campus structures



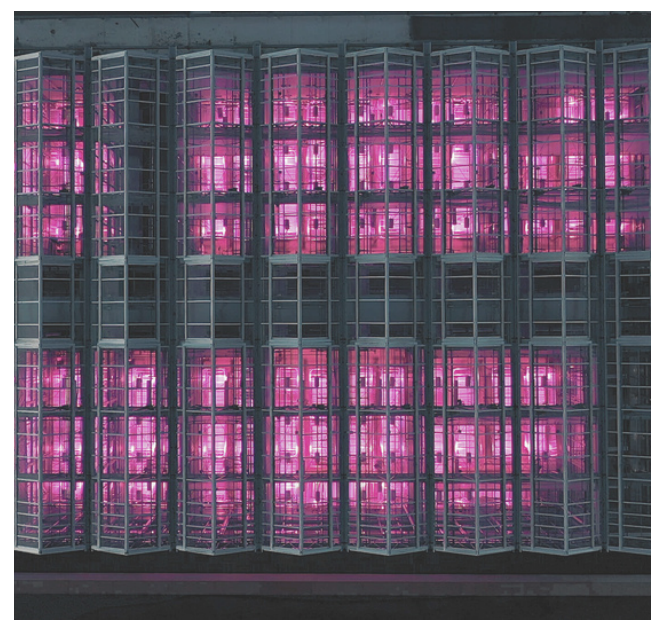
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ENERGY RECOVERY SYSTEM



Building Envelope- “The Perfect Envelope”

One of the most impressive aspects of the science initiative building is its envelope. A building envelope is what physically separates the interior and exterior environments from one another. Featuring exemplary vapor barriers, insulation, air gaps, and building cladding. This envelope protects its inhabitants and mechanical systems from wind, rain, snow, and temperature fluctuation, which is something we deal with all the time in Wyoming! The building envelope serves as a testament to the integration of cutting-edge technology and architectural design principles. Incorporating features like smart sensors and automated shading systems, it adapts dynamically to environmental changes, optimizing indoor comfort levels while minimizing reliance on mechanical heating and cooling systems.



Greenhouse

Another interesting feature that the Science Initiative building has is the greenhouse that lies on top of the structure. It is around 6,000 square-feet, has twelve separate greenhouses and two walk-in growth chambers. The greenhouse has a very advanced heating and cooling system that can emulate various climates, to grow a wide variety of plant species. Although, those advancements do have pitfalls, the greenhouse is highly inefficient because it burns so much fuel during the cold season. Furthermore, the greenhouse's inefficiency during the cold season underscores the need for ongoing research and innovation in sustainable energy solutions to mitigate its environmental impact.