

# Project Description

The new 11,000 square foot Edward and Rosalie Ginsberg Building will enhance the Ginsberg Center's focus on outreach and collaboration among community partners, faculty, and students. The proposed facility will include collaborative meeting spaces, a resource library, student organization space, support, and

administration spaces. The high-performance building envelope and onsite closed-loop geothermal system will provide an energy-efficient, all-electric building. This all-electric building was designed in anticipation of the U-M Ann Arbor campus purchasing electricity from renewable energy sources resulting in a carbon neutral operation.



## Hybrid Mass Timber Structure

Embodied carbon is reduced through the use of a mass-timber floor structure in lieu of a conventional concrete or steel floor structure.

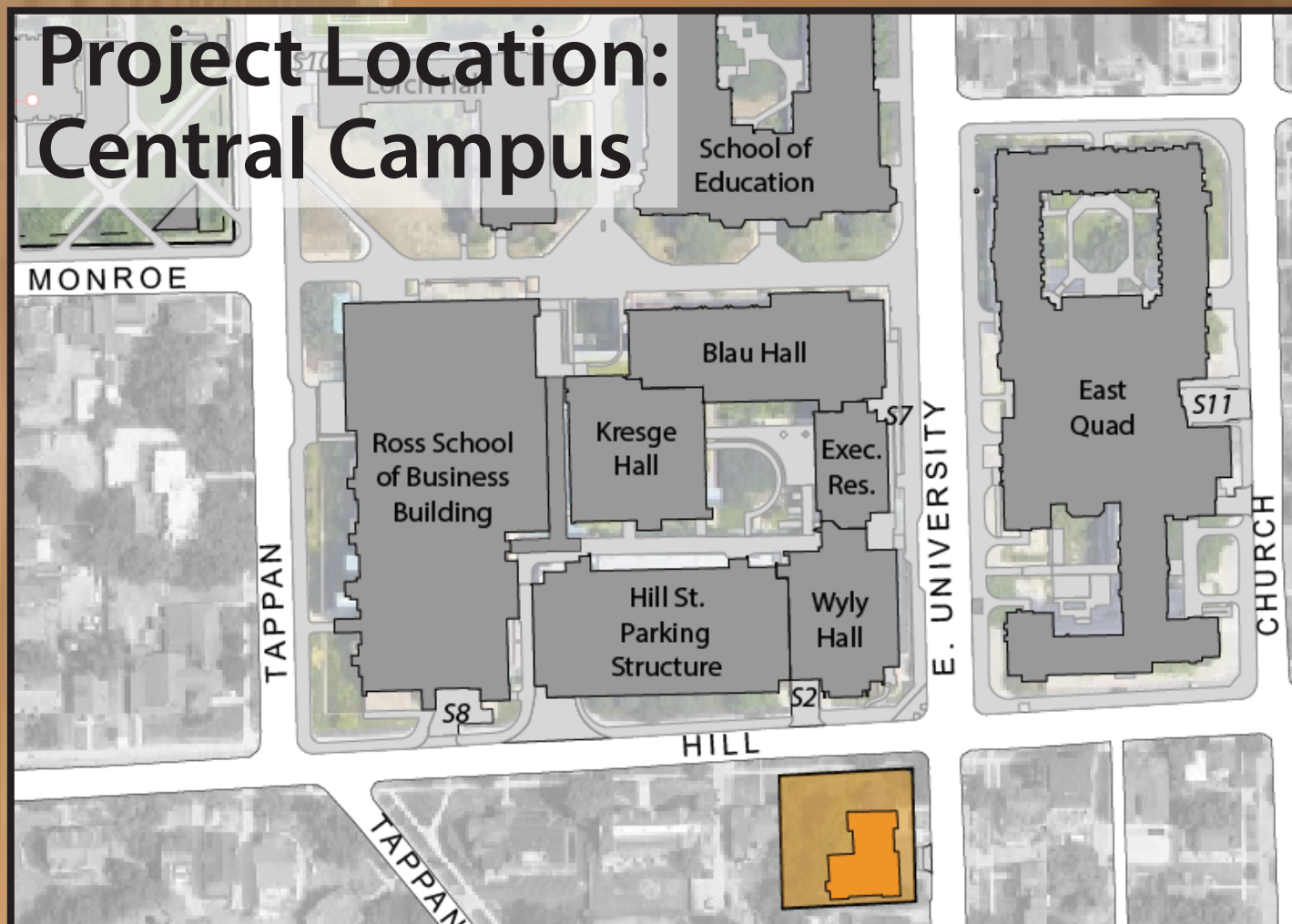
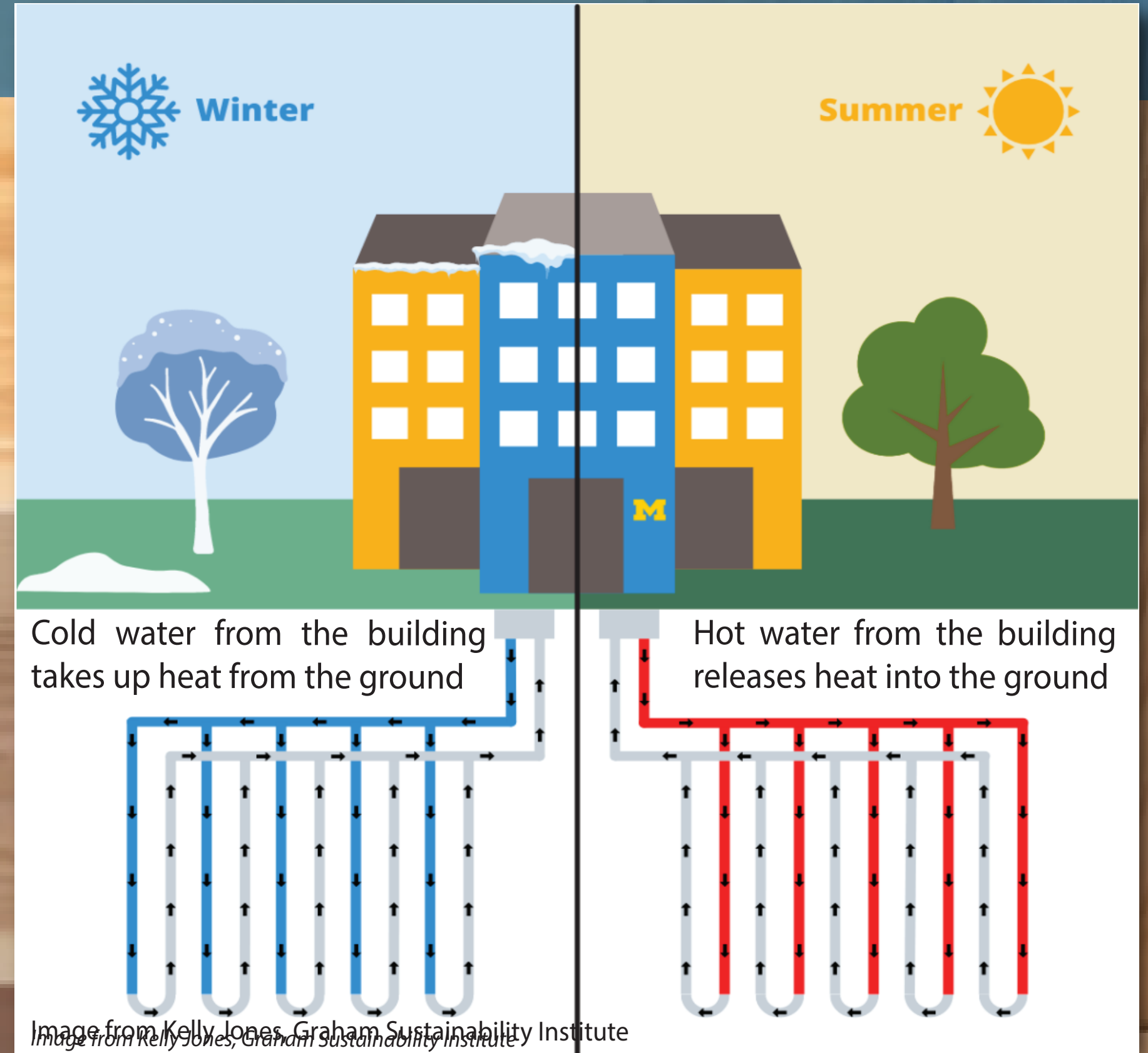


## Natural Ventilation

- An open stair promotes airflow between the first and second floors, allowing heat to rise naturally.
- Operable windows at the second-floor office space, allow for natural cross-ventilation.

## All Electric Building with On-Site Geothermal

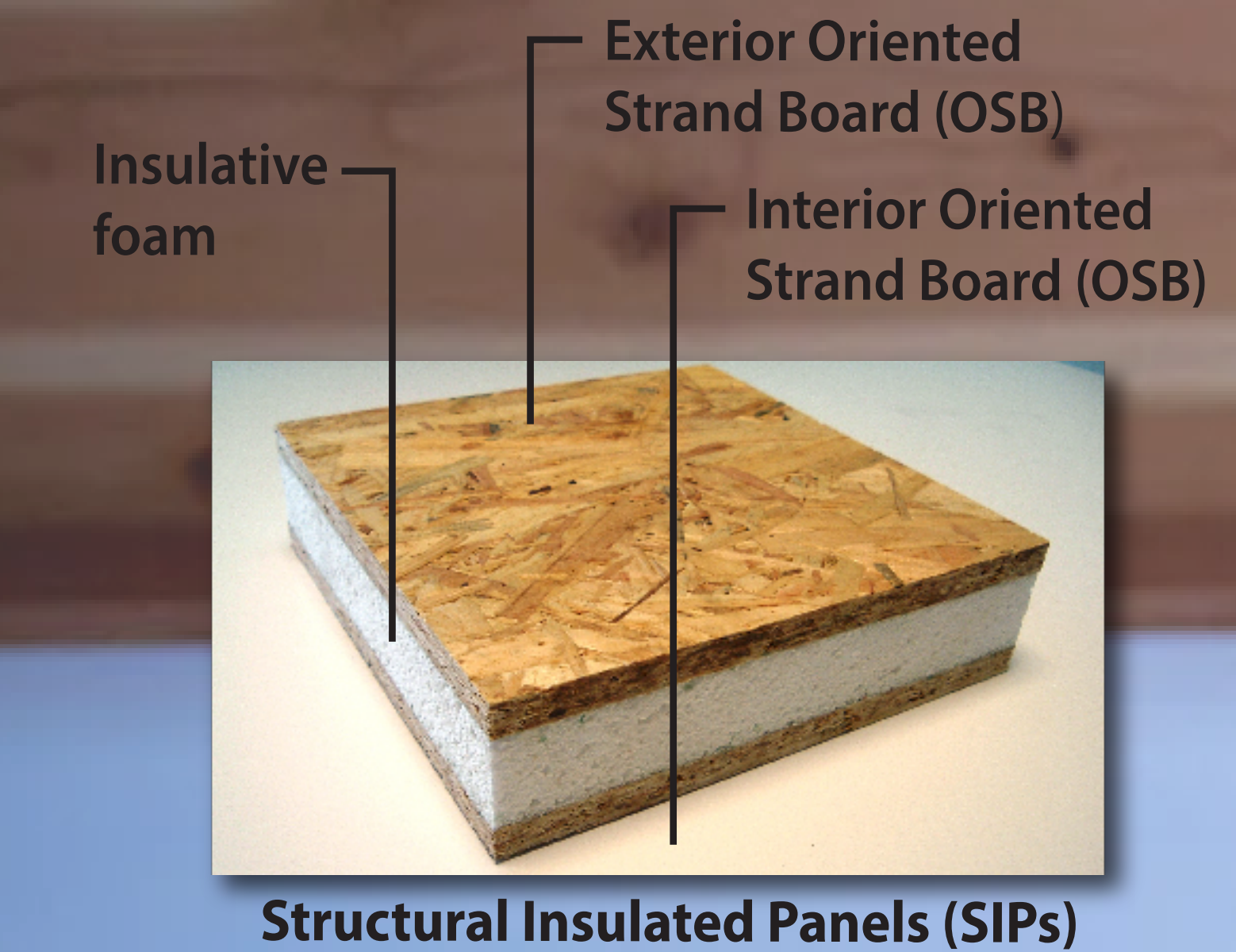
An onsite, closed-loop, geo-exchange system provides efficient electrical heating and cooling of the facility. The system consist of 8 borings spaced 20 feet apart with underground piping to a depth of 535 feet.



## Sustainability Facts

**Edward and Rosalie Ginsberg Building**  
 Building Use: Ginsberg Center  
 Location: Ann Arbor, Michigan  
 Size: 11,000 Square Feet  
 Number of Occupants: 130 Total Occupancy

LEED version	v4/ v4.1
LEED certification level	Registered with a LEED Gold Target
ASHRAE 90.1 version	2010
Energy cost savings compared to ASHRAE baseline	45%
Total energy savings	\$5,322 / year
Total energy savings (all-electric)	242,492 KWh / year
CO2 emissions avoided	169 metric tons / year
Water fixture baseline	2012 Michigan Plumbing Code
Total water savings	23%
Construction/Demolition waste diverted from landfill	TBD
<b>Insulation (R-Value)*</b>	<b>Code</b> <b>Project</b>
Wall assembly - above grade	15.6    28.6
Wall assembly - below grade	7.5    7.5
Roof assembly	20    50
<b>Glazing</b>	
U-value**	0.45    0.30
Solar Heat Gain Coefficient (SHGC)**	0.40    0.35



## Optimized Building Envelope

- A low Window-to-Wall Ratio (WWR) of 24% limits energy loss through glass
- Solid walls constructed of Structural Insulated Panels (SIPs), minimize energy loss and minimize thermal bridging.
- Building Envelope Commissioning (BECx) will be performed to ensure performance goals are achieved.



**Project Team**

Owner	University of Michigan - Student Life
Architect/ MEP Engineer	SmithGroup Inc.
Geothermal Engineer	Strategic Energy Solutions
Contractor	DeMaria Building Company
MEP Commissioning Authority	U-M AEC
Building Envelope Commissioning Authority	SmithGroup Inc.
Project Management	U-M AEC

Design Period: 03/2022 - 02/2023  
 Construction Period: 04/2023 - 02/2025  
 \* The higher the R-value the better the insulating quality  
 \*\* The lower the U-value and SHGC the more energy efficient the window

