## Project Description

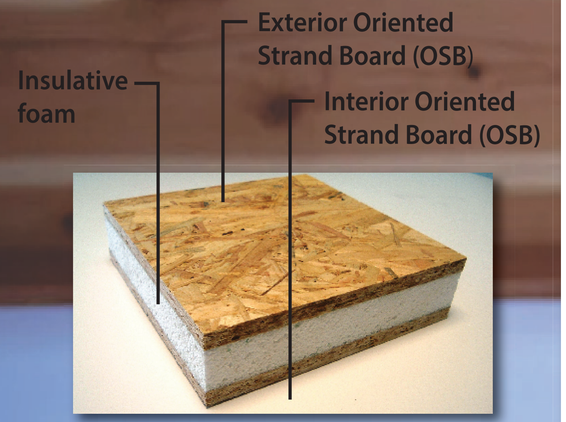
The new 11,000 square foot Edward and Rosalie Ginsberg Building will enhance the Ginsberg Center's focus on outreach and collaboration among community partners, faculty, and students. The proposed facility will include collaborative meeting spaces, a resource library, student organization space, support,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




**Structural Insulated Panels (SIPs)**

### 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.

### 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.

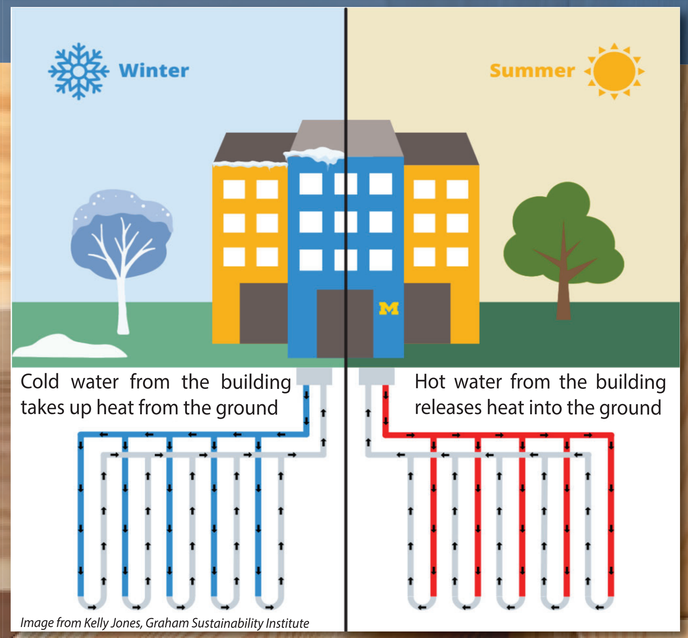
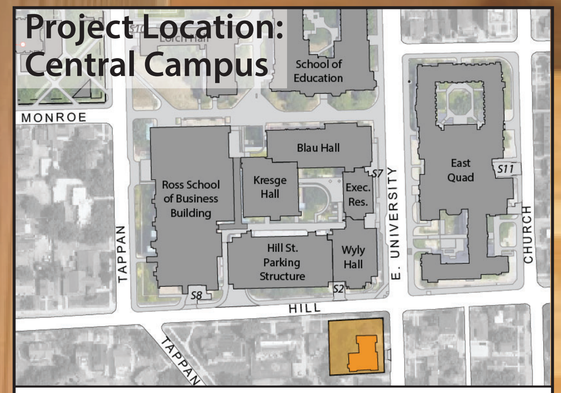



*Image from Kelly Jones, Graham Sustainability Institute*

### Project Location: Central Campus




## 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 | 2013 |
| 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 |

| Insulation (R-Value)* | Code | Project |
|---|---|---|
| Wall assembly - above grade | 15.6 | 28.6 |
| Wall assembly - below grade | 7.5 | 7.5 |
| Roof assembly | 20 | 50 |
| Glazing | | |
| U-value** | 0.45 | 0.30 |
| Solar Heat Gain Coefficient (SHGC)** | 0.40 | 0.35 |

| 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

planet blue
UNIVERSITY OF MICHIGAN