Project Description

Located along a major thoroughfare of U-M campus, the New College of Pharmacy Building sits at the nexus of Central Campus to the south and the Medical Center Campus to the northeast. The new building at the corner of Glen Avenue and East Huron Street provides a prominent location for the college and further reinforces an important gateway to the university.

The new facility will consolidate the College of Pharmacy's teaching, research and office spaces; house state-of-the-art academic learning environments, class laboratories and wet and dry research, as well as administrative offices. The new teaching and research facility will allow for the college to continue to achieve its mission "…to educate and inspire a diverse group of future pharmacists and pharmaceutical scientists to be leaders, advance patient care, and improve health for all."

Mass Timber Construction and Benefits

The building's hybrid structure consists of concrete, mass timber, and steel. The strength, durability, inherent fire-resistance, visual appeal and reduced embodied carbon in the mass timber emphasize the building's focus on sustainability.

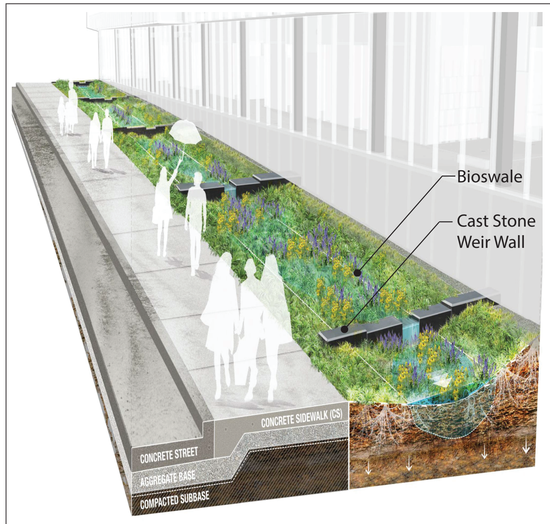
Recycled Materials

Exterior furnishings are made with recycled high-density polyethylene (HDPE) sourced primarily from milk jugs and manufactured in Duluth, Minnesota.

Mass Timber Benefits

Reduce Greenhouse Gas Emissions
Ease and Speed of Construction
Minimize Construction Waste
Fire Resistant
Reduce Additional Finish Materials
Connection to Nature

Big house photo: Michigan Photography



Stormwater System

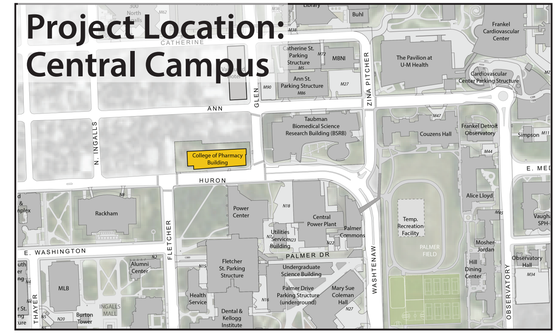
The stormwater system consists of underground rainwater storage tanks to temporarily store water from a 100-year storm underground and slowly release it into the regional groundwater system through underlying soils

In addition, an emergency overflow weir provides a secondary stormwater outflow path in case of system failure or a storm event exceeding the 100-year storm.

Embodied Carbon reduction

The embodied carbon of a building includes the greenhouse gas emissions associated with the extraction, transportation, manufacturing and installation of building materials. Through the incorporation of a mass timber structure, the building has reduced its embodied carbon by 40%.

Total carbon avoided is approximately 1,522 MT CO_2e. This is equal to the amount of carbon sequestered by 1,800 acres of forest in one year. That is 144 times the footprint of the Michigan Stadium!



Sustainability Facts

New Building for the College of Pharmacy

Building Use	College of Pharmacy
Location	Ann Arbor, Michigan
Size	142,000 Square Feet
Number of Occupants	248 Regular; 512 Peak Load

LEED version	v4/ v4.1
LEED certification level	TBD
ASHRAE 90.1 version	2013
Energy cost savings compared to ASHRAE baseline	15%
Total energy savings	$51,159 year
Total electrical savings	584,600 KWh / year
Total steam savings	-191 MLB/ year
CO2 emissions avoided	167 metric tons/ year
Water fixture baseline	2012 Michigan Plumbing Code
Total water savings	30%
Construction/Demolition waste diverted from landfill	TBD

Insulation (R-Value)*	Code	Project
Wall assembly - above grade	18.2	18.2
Wall assembly - below grade	7.5	7.5
Roof assembly	30	30
Glazing - Curtain wall system		
U-value**	0.55	0.42
Solar Heat Gain Coefficient (SHGC)**	0.40	0.40
Visible Light Transmittance (VT)***	1.10	0.441

Project Team	
Owner	University of Michigan - College of Pharmacy
Architect	RDG Planning and Design
Engineer	Alvine Engineering
Contractor	Turner Construction Company
MEP Commissioning Authority (CxA)	U-M AEC
Building Envelope CxA	Wiss Janney Elstner Associates Inc
Project Management	

Design Period: 04/2019 - 11/2022
Construction Period: 01/2023 - 07/2025

* The higher the R-value the better the insulating quality
** The lower the U-value and SHGC the more energy efficient the window
*** The higher the VT value the more daylight in the space. VT is measured between 0 and 1

planet blue
UNIVERSITY OF MICHIGAN