

UMCI Sustainability Goals

Project Overview

UMCI will be an all-electric building, with renewable energy offsets purchased by the university.

The energy efficient system design has a unique hybrid water-to-water heat pump and air-to-water heat pump system and ice thermal storage tanks maximizing energy recovery.

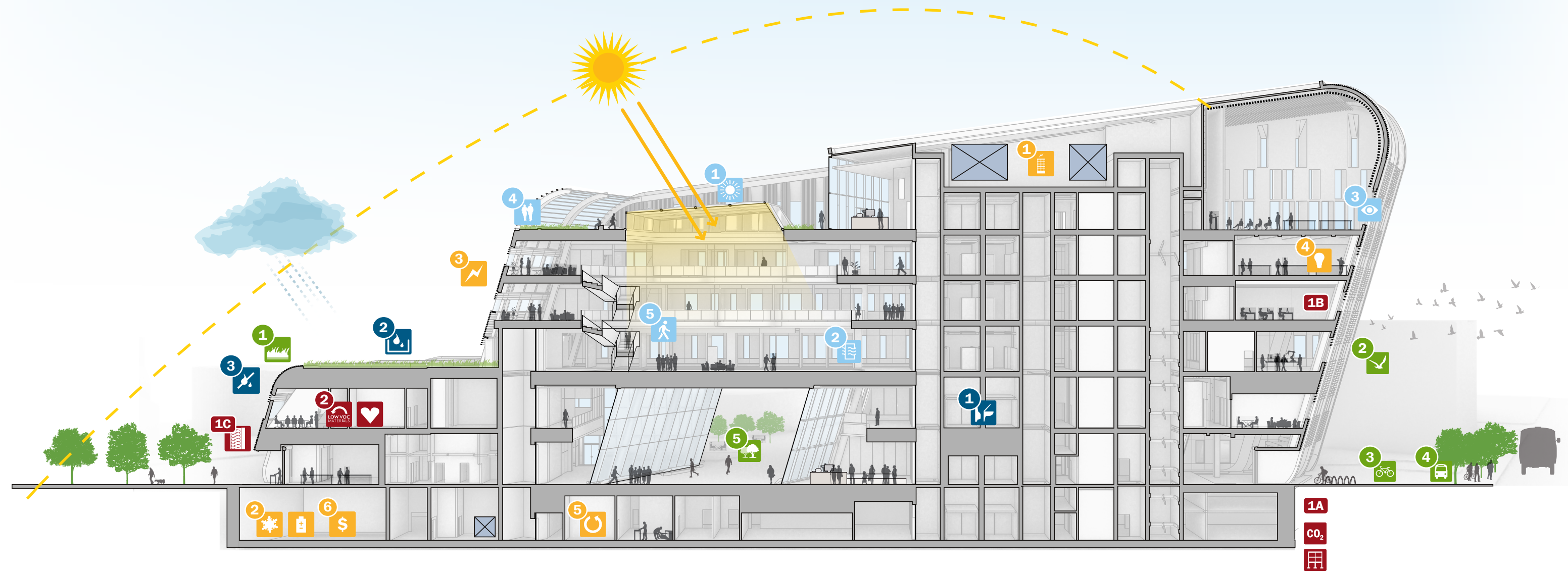
The design reduces embodied carbon by utilizing optimized concrete mixes, structural steel with recycled content, and low-carbon insulation to lower the building's overall global warming potential.

The design prioritizes daylight and connection to the urban landscape with views and exterior occupiable spaces.

Healthy interior material selection will promote the health and wellbeing of students, staff and community.

Low-flow plumbing fixtures will significantly reduce annual indoor water consumption.

Potential ecological impacts of the development are addressed through native and adaptive, irrigation-free landscape design; site lighting design to reduce light pollution; and strategic bird-safe glass with frit along the building's facade.



ENERGY AND OPERATIONAL CARBON

- 1 Electric space cooling
- 2 Thermal storage
- 3 Renewable energy purchasing
- 4 Efficient LED lighting
- 5 Exhaust air energy recovery
- 6 30% energy savings

MATERIALS AND EMBODIED CARBON

- 1 Low carbon materials
 - 1A Concrete
 - 1B Structural steel
 - 1C Insulation
- 2 Low-VOC indoor materials and material ingredient transparency

HEALTH, WELLNESS, AND OCCUPANT COMFORT

- 1 Day-lit atrium
- 2 Healthy indoor air quality
- 3 Quality views to the outdoors
- 4 Outdoor open space
- 5 Feature stairs for active occupants

SITE, LANDSCAPE AND ENVIRONMENT

- 1 Green roof with native and adaptive plants
- 2 Strategic bird-safe glazing
- 3 Bicycle parking
- 4 Access to transit
- 5 Publicly accessible plaza

WATER EFFICIENCY AND MANAGEMENT

- 1 40% indoor water use reduction
- 2 Stormwater retention at green roof
- 3 No permanent irrigation