Winship Cancer Institute at Emory Midtown

LEED CERTIFICATION- GREEN BUILDING EDUCATION



Overview

Anticipated Sustainability Certifications
LEED BD+C Healthcare, Silver

Key Summary
Winship Cancer Institute at Emory Midtown is a state of the art cancer care facility which centers around the patient experience with it's environmental conscious design.

Through a holistic approach to energy-efficient design, the building will expend almost 37 percent less energy annually than the average hospital in the United States.

The high-performance facade optimizes glazing ratio and shading, and the building features energy-efficient recovery mechanical equipment with chilled beams and direct-outside air units. Water usage is reduced through the collection of all stormwater for reuse in irrigation and chiller plants. Within the building, daylight, views, and thermal comfort create an environment that supports recovery.

The use of low VOC materials further contribute to a high-quality indoor environment. The project is targeting LEED Silver certification.



Key LEED Credits Anticipated



INTEGRATIVE PROCESS	1 point
LOCATION & TRANSPORTATION	7 points
SUSTAINABLE SITES	1 point
WATER EFFICIENCY	5 points
ENERGY & ATMOSPHERE	15 points
MATERIALS & RESOURCES	7 points
INDOOR ENVIRONMENTAL QUALITY	4 points
INNOVATION	6 points
REGIONAL PRIORITY	4 points



Integrative Process

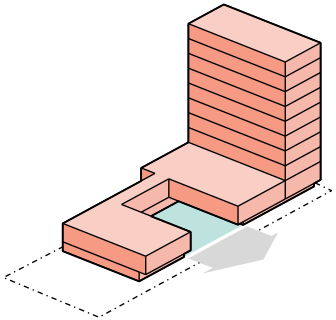
Regional Priority

- Building stakeholders and design team members worked together to integrate vision, expectations and expertise.
- This project team leveraged simulation to quantify the impact of design decisions on the resultant sustainable building.

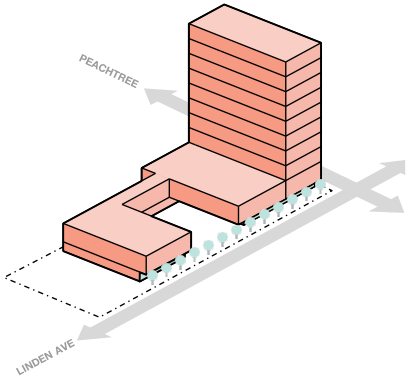
Sustainable Site Planning

Location & Transportation

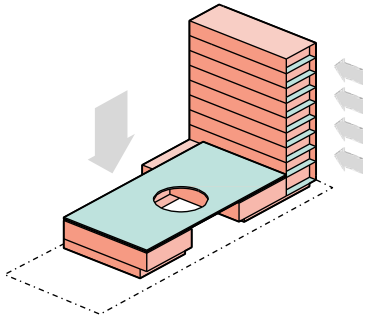
- The building sits on a previously developed parking lot, thereby conserving the utilization of new resources.
- Emory Winship features bike storage and shower facilities for occupants to support active living.
- The parking space of the building includes dedicate spaces with EV ready infrastructure to promote and cater eco-friendly vehicles.
- The building roof incorporates materials with high reflectivity to reject solar heat and reduce urban heat island effect.



Protected Courtyard Drop Off



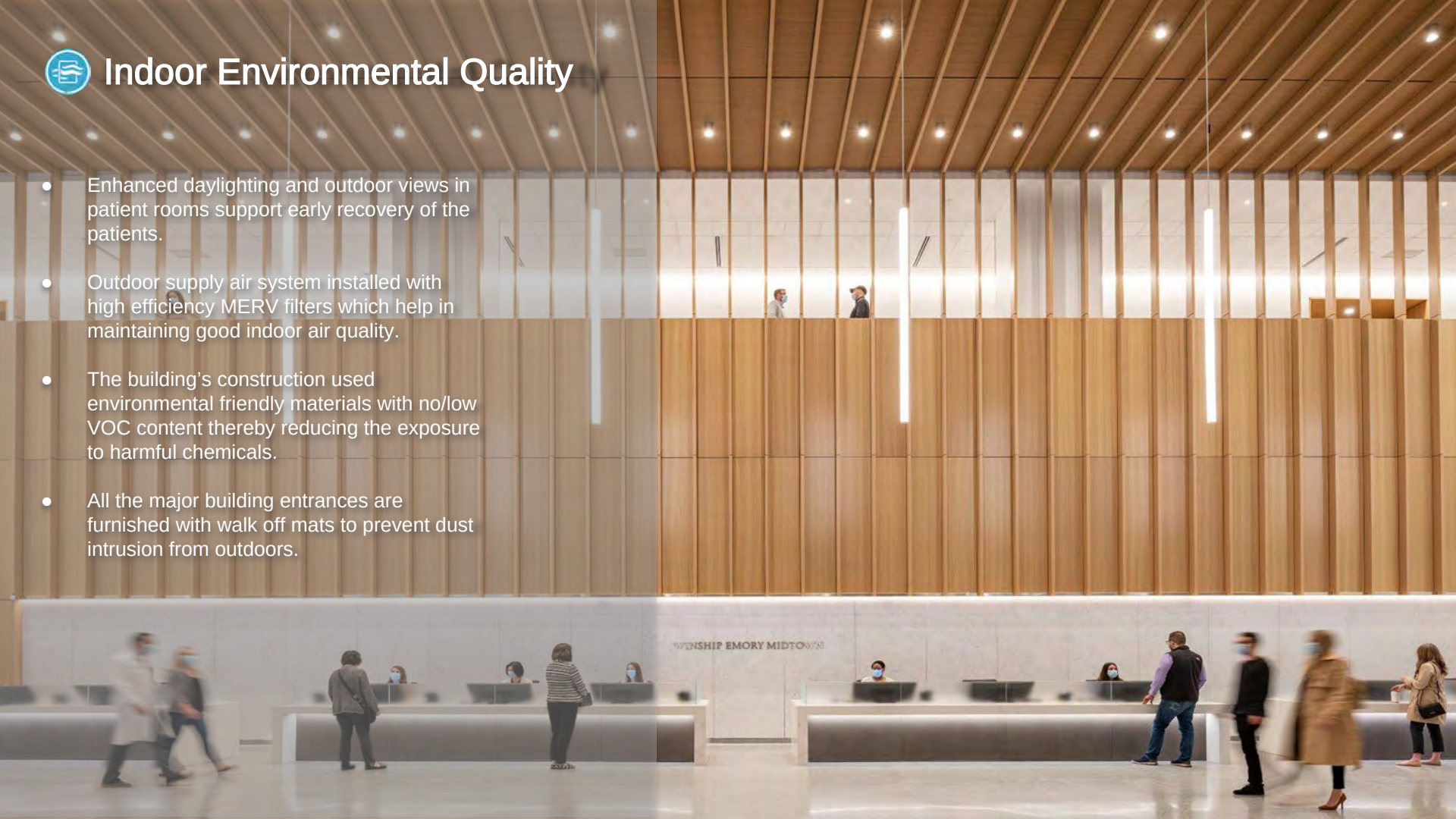
Street Activation



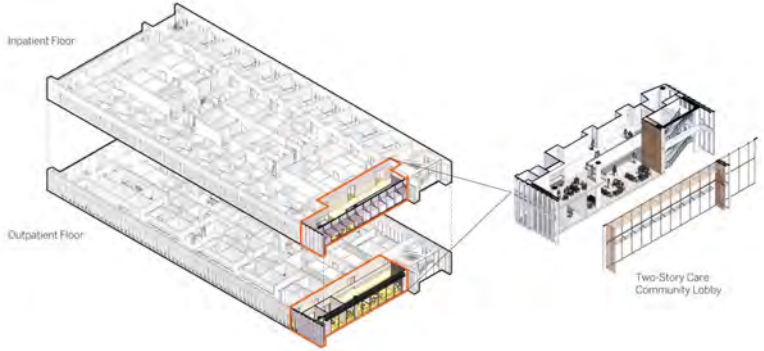
Shaded Roof and Community Spaces

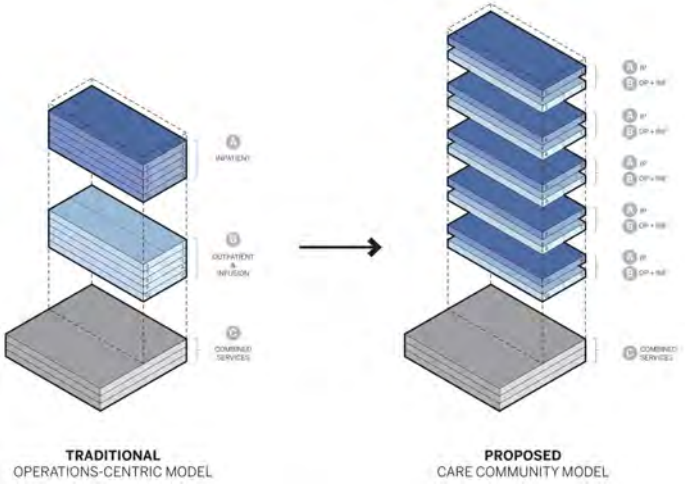
Indoor Environmental Quality

- Enhanced daylighting and outdoor views in patient rooms support early recovery of the patients.
- Outdoor supply air system installed with high efficiency MERV filters which help in maintaining good indoor air quality.
- The building’s construction used environmental friendly materials with no/low VOC content thereby reducing the exposure to harmful chemicals.
- All the major building entrances are furnished with walk off mats to prevent dust intrusion from outdoors.



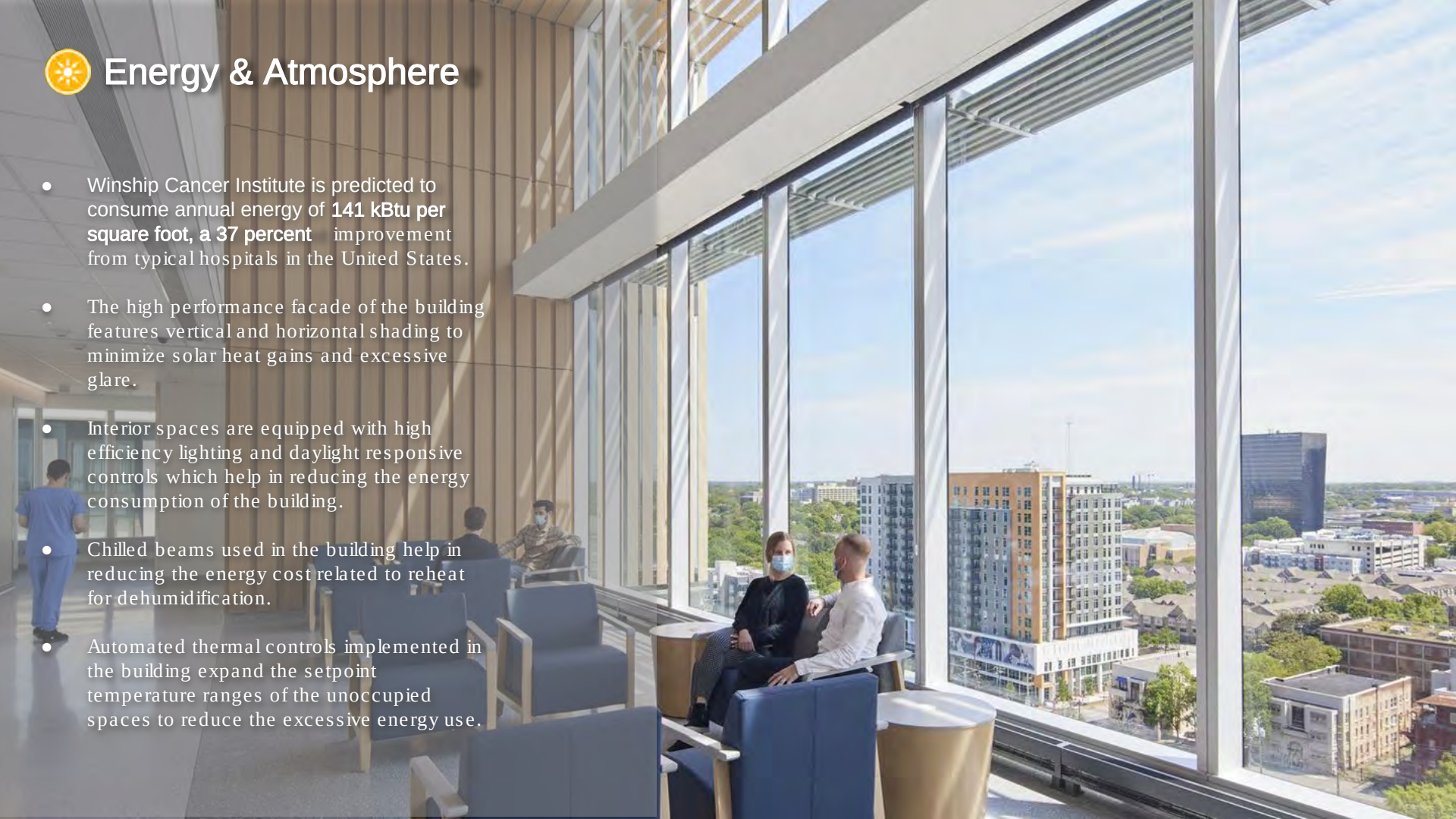
Creating Care Community





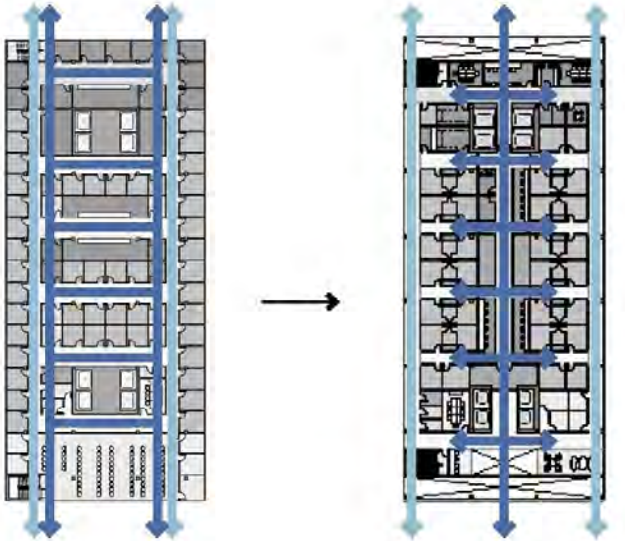


Energy & Atmosphere



- Winship Cancer Institute is predicted to consume annual energy of **141 kBtu per square foot, a 37 percent** improvement from typical hospitals in the United States.
- The high performance facade of the building features vertical and horizontal shading to minimize solar heat gains and excessive glare.
- Interior spaces are equipped with high efficiency lighting and daylight responsive controls which help in reducing the energy consumption of the building.
- Chilled beams used in the building help in reducing the energy cost related to reheat for dehumidification.
- Automated thermal controls implemented in the building expand the setpoint temperature ranges of the unoccupied spaces to reduce the excessive energy use.

Enhancing Patient Experience



TYPICAL
INBOARDED CORRIDOR WITH MIXED PATIENT/STAFF CIRCULATION

PROPOSED
OUTBOARDED PATIENT CORRIDOR AND CENTRAL STAFF CIRCULATION SPINE





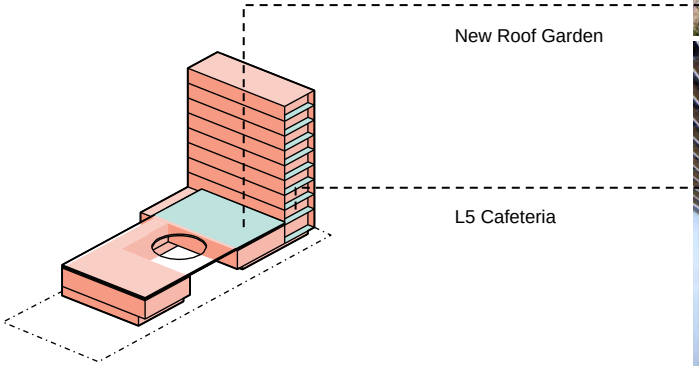
Water Efficiency



- The outdoor landscaping uses **58% less water** with native plantation and drip irrigation.
- **31% reduction** in indoor water use demand through low flow plumbing fixtures.
- Collection of stormwater for reuse in irrigation and chiller plants helps in reducing potable water use.

Creating Moments of Respite

- A Podium roof garden, adjacent to L5 Cafeteria, will be constructed to enhance amenities for visitors & staff.
- The roof garden will also help to reduce the building's heat island effect as well as offering moments of respite.









Material & Resources

Innovation

- The building materials used for the center's construction consist of high recycled content percentage which helps in reducing the negative impacts related with new raw material extraction.
- More than **50% of the installed building** products have a disclosed information of their ingredients and life cycle data which helps in measuring their impact on the environment and human health.
- **77% of the waste generated** from the construction and demolition activity was diverted from landfill through recycling or reusing.
- The project Innovation credit is being shared through the Green Building Education & administering a Post Occupancy survey measuring users' satisfaction.