



Loved by People and The Environment: The Future of Green Building Design

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The Context

CO₂ makes up only 0.041% of the world's atmosphere (West)

Average carbon dioxide concentrations rose from about 316 parts per million by volume (ppmv) of dry air in 1959 to approximately 415 ppmv in 2019 (*Carbon Budget*).

Buildings account for 39% of CO₂ emissions in the United States Per Year (*Buildings and Climate Change*).

LEED Green Building

From Beginning to End



Energy



Water Use



Indoor
environmental
quality



Material Selection



Location

The Living Building Challenge



PLACE



WATER



ENERGY



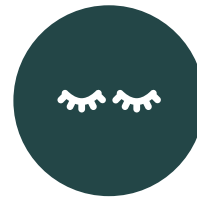
HEALTH +
HAPPINESS



MATERIALS



EQUITY



BEAUTY

Implementations

Core Cancer Treatment Infusion Center



Place/Location

- Built in a fill lot
- Replace invasive species with local native ecosystems landscaped in a way to mature and evolve
- No petrochemical fertilizers or pesticides
- Encouraged pedestrian movement by providing space for interior bike storage
- Pervious parking and walking paths, replacing concrete and asphalt

Water Usage

No potable water used for irrigation

Rainwater storage and treatment on site

Native landscaping with drip irrigation systems

Green Roof

Storm water treated on site to avoid sheet flow and down stream pollution

Energy

Photovoltaics used as car covering in parking lots South facing

105% onsite renewable energy for the year by using both solar and wind power

Using highly efficient light bulbs and fixtures

Daylight and Movement controls

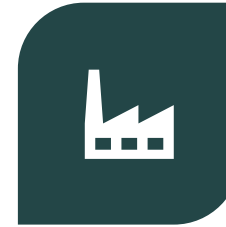
Triple glazing on windows to assist in insulation

Thermal Ground Source heat pump vs. typical HVAC

Materials



**REGENERATIVE
MATERIALS USED**



**DECLARE PRODUCTS:
20 PRODUCT FROM 5
DIFFERENT
MANUFACTURERS**



**FOREST STEWARD
COUNCIL (FSC) WOOD
USED**



LOCAL RESOURCES



**RECYCLING AND
COMPOSTABLE
COLLECTED**



**AVOIDED ANY RED
LIST ITEMS OR
KNOWN
CARCINOGENS**

Health + Happiness/ Indoor Environmental Quality

Strict adherence to ASHRAE 62

entry approach vestibule and walk off rugs

cleaning protocols and air purification system

75% of occupants have views to outside with daylight access

avoidance of VOCs and flush out done before occupancy

operable windows

varied working and patient posture options

access to nature both interior and exterior

Equity

ADA assessable

Equally accessible to everyone without marginalizing those with disabilities

Provide street furniture, public art, gardens and benches open to the public

Providing a location where patient and community can come together

Beauty



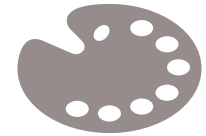
Using a biophilic design
pulling inspiration from
flower petals



Natural materials and
patterns in space



Focusing on views to
nature



Using colors that have
been proven to assist in
the healing process



Results

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