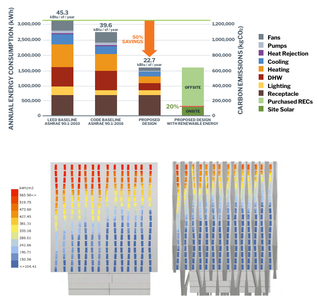
the 10 challenges

1 ENERGY

Net-Zero Energy All Electric Building 23 EUI kBtu

Renewable Energy (20% on-site PV, 80% off-site PPA)

55% Spatial Daylight Autonomy



energy

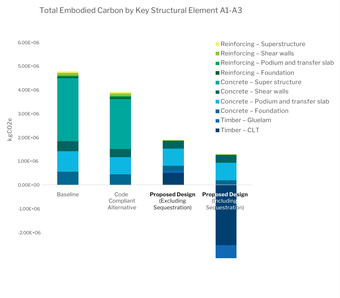
Our design reduces annual energy and associated carbon emissions by 50% and our facade is self shading, reducing solar radiation by 18%.

2 CARBON

Net-Zero Carbon 51% Reduction from BAU91.3 kgCO2e/sf 51% Carbon Offsets

86% Reduction of Embodied Carbon (CLT, Carbon Cure Low Carbon materials)

20,683 tCO2e Avoided 1,769 tCO2e Sequestered



carbon

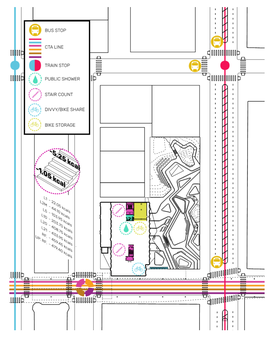
We have studied a CLT structural system and a Green Concrete structural system. Each presents significant carbon savings over a business-as-usual approach.

3 MOBILITY

Multiple Mass Transit CTA Options

No On-Site Parking Provided

1 Indoor Bike Stall Per Apartment



mobility

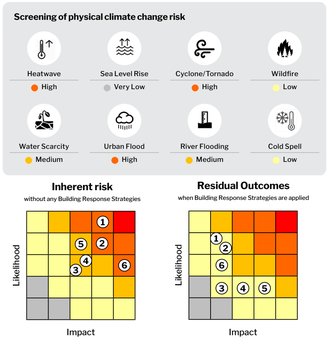
The design provides a ground floor high-density bike room with storage spaces at a ratio of 1:1 bikes to apartment units. The project adds density at a transit-rich location.

4 RESILIENCE

PHIUS-ready Envelope Design

Tesla Powerwall battery storage for backup power

No Basement Elevated MEP Equipment



resilience

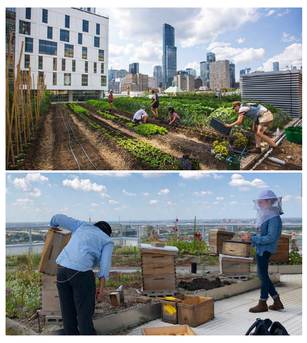
The project team completed a climate change risk assessment for the site. Inherent risks have been mitigated with numerous building response strategies, including careful building system selections and distribution.

5 GREEN JOBS

Green Jobs During CLT Construction

2 Roof Crop Urban Garden Staff

On-Site Eco Concierge During Operation



green jobs

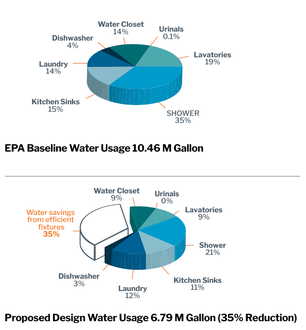
The building will create numerous new green jobs including jobs associated with the urban farm, sustainable building materials, and construction techniques.

6 WATER

40% Potable Water Reduction

Rainwater Re-Use for Irrigation

90% Stormwater Managed Through Detention and Natural Systems



EPA Baseline Water Usage 10.46 M Gallon

Proposed Design Water Usage 6.79 M Gallon (35% Reduction)

water

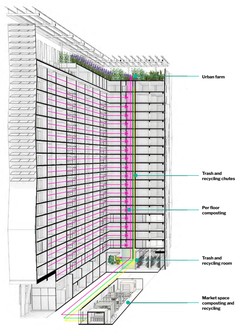
The design employs water conservation strategies, eliminates any water use for cooling, and captures rainwater for irrigation and stormwater management.

7 WASTE

Waste Segregation (Recyclables, Organics, and Residuals)

Composting Service

Education and Engagement



waste

The building employs separate trash and recycling chutes and staff will collect compostable materials on every floor. Enriched soil will be returned to the building's rooftop farm.

8 BIODIVERSITY

5,000 sqft Urban Rooftop Agriculture

60% of Green Space

100% Native/Adapted Non Production Plants

Biodiversity

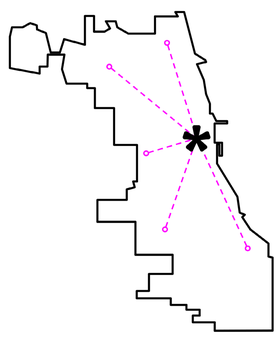
Pritzker Park has been reimagined with activity, diversity, and safety in mind. Along with an urban rooftop farm, the project promises a greener future.

9 INCLUSIVITY

Gender Neutral Restrooms

Local/Minority Workers for Construction and Operations

M/WBE Commitment



Inclusivity

The team has engaged multiple community members and formed strategic partnerships. From the market hall to the community center, to gender inclusive restrooms, this will be a place for everyone.

10 INNOVATION

GFRC and CLT Mass Timber

Health, Wellness, and Comfort

Affordable Housing in Chicago Loop

Design Principles

sustainable

- A design that is **low/no carbon.** A high rise that **generates power on-site,** with a target to produce 20%+ of energy demand.
- A skin that is **super-insulated** and **self-shading.**
- An architecture that is **lightweight** and composed of low-carbon and sustainably-sourced, **modular** materials.

affordable

- Housing that is **luxurious yet accessible and affordable to Chicagoans.**
- A design that is **high impact** but cost effective.
- 3A design that is **mixed-income**, ranging from affordable to workforce to market-rate.

community based

- A **market hall** that hosts emerging neighborhood artists and artisans; **bringing culture and craft** to the Loop and sending dollars back to the neighborhoods.
- A **community center** to serve the needs of the homeless population in the neighborhood.
- A rooftop that is **healthy and social,** providing ample outdoor space and a rooftop farm.

innovative

- An architecture that is influential, urban and buzzing with activity. A design that sparks excitement at the south end of the Loop.
- An iconic new architecture idea that seamlessly integrates with a reimagined Pritzker Park and the neighborhood beyond.
- A catalyst and inspiration for green high rise architecture.

Common Good Collaborative

Lendlease, Lead Developer
KMA Companies, Co-Developer
Valerio Dewalt Train, Architect of Record
Latent Design, MBE/WBE, Architect Protege
dbHMS, MBE, Environmental Expert and MEP/FP Enginee
Thornton Tomasetti, Structural Engineer
Primera Engineers, WBE, Civil Engineer
site Design Group, MBE, Landscape Architect
Terra Engineering, WBE, Traffic and Survey Engineer
Lendlease Integrated Solutions, LCA & Climate Risk Analysis
Lendlease Construction, General Contractor
Bowa Construction, General Contractor Protege
The Bozzuto Group, Property Management
Span Studio, Branding Consultant

building a sustainable, resilient & equitable future

our idea

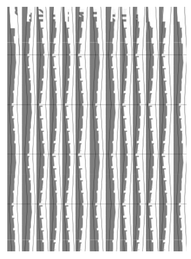
Common Good Collaborative is developing a **resilient, sustainable and equitable future.** The Loop is everyone's neighborhood, the building supports a new set of values; it is **net-zero carbon, affordable** residential project with a ground-floor **Community Center** and **Market Hall** providing a place for local makers from all the City's neighborhood to sell their products without significant financial commitments.

We were **inspired by nature** and developed a building that **responds to the sun**, is **modular and buildable, net-zero carbon, porous at the park**, and a **place for everyone**.

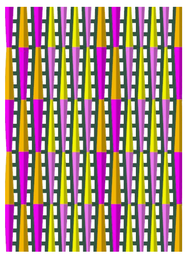
The residences, 20% of which will be affordable, and 42% of which will be designated for workforce housing, include a range of unit types, from **innovative co-living units** to larger one-bedrooms, that allow residents of all economic means to experience downtown living. The **rooftop is a destination for all residents with gardens** that will produce fruits, vegetables, and wildflower gardens, dedicated wellness spaces and additional amenities. **Solar panels** hovering over the rooftop and on the south elevation will provide up to 20% of the building's energy.

Led by lead developer Lendlease, co-developer KMA Companies, lead architect Valerio Dewalt Train Associates, and protégé architect Latent Design, will utilize a number of innovative and sustainable design techniques, including a cross laminated timber structural frame building materials and methodologies to deliver a building that will be a **landmark for change in Loop, everyone's neighborhood**.

inspired by **nature**

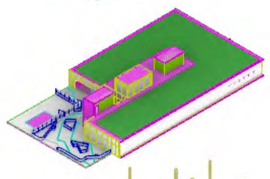


responsive to the sun

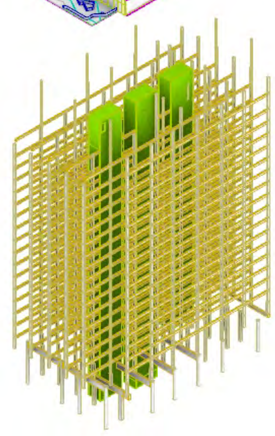


modular & buildable

photovoltaics

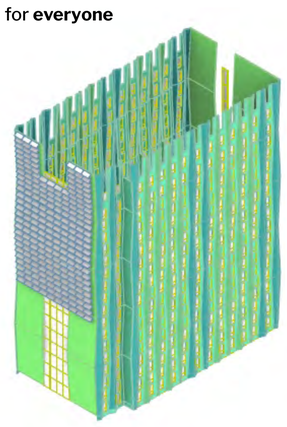


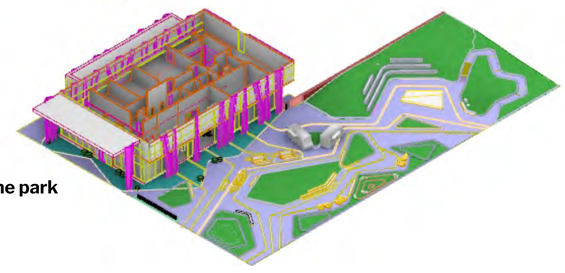
urban farm



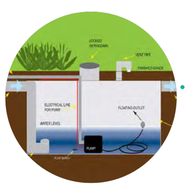
carbon capture

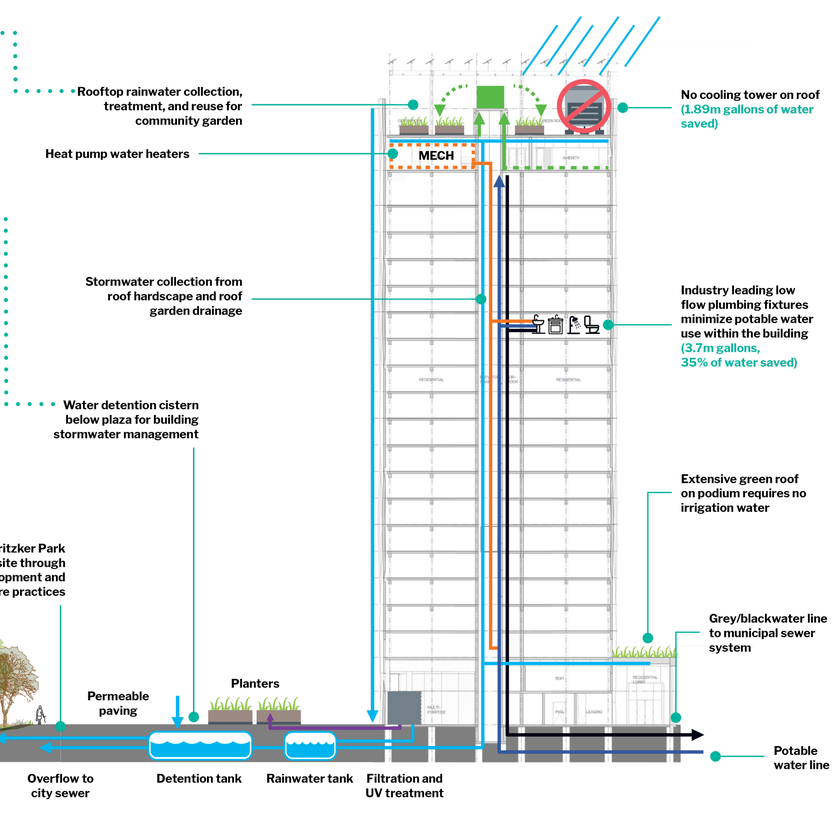
for **everyone**

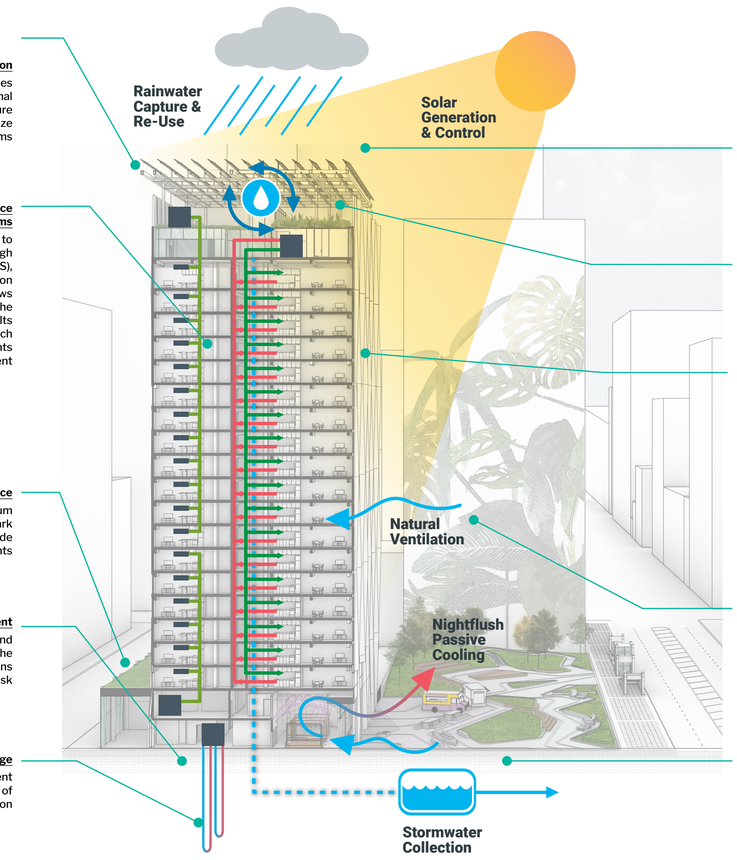




porous at the park







Rooftop protection
Solar Canopy and Extensive Vegetation provides solar protection to expand outdoor thermal comfort ranges during increased temperature events. MEP equipment is screened to minimize impacts from winds and storms

Decoupled ventilation and space conditioning systems
Treated fresh air is delivered directly to each apartment and common area through a Dedicated Outside Air System (DOAS), which includes a high efficiency filtration system (MERV 13). The VRF systems allows the ventilation air to be decoupled from the heating and cooling systems. This results in the elimination of air recirculation, which mitigates the transfer of contaminants ensuring a healthy indoor environment

Green space
Rooftop Community Garden, Podium Greenroof, and Landscaped Pritzker Park reduce total Heat Island Effect and provide cool areas of relief for occupants

No basement
Below grade space has been eliminated and all major MEP Systems are located above the ground floor to facilitate continued operations while mitigating flood risk

Reliable heat exchange
Geothermal ground loop to provide consistent annual heating and cooling independent of outdoor conditions and climate fluctuation

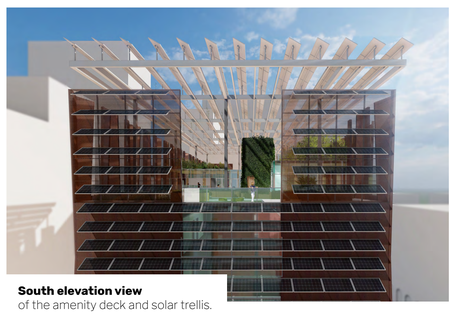
Renewable energy generation
On-site electricity production to reduce dependency on the electrical grid

Tesla powerwall battery storage
Backup power ready for grid outages to provide residential lighting and common area refrigeration

High performance façade
Insulated, shaded, and airtight envelope maintains indoor thermal comfort conditions during extreme weather swings and power outages. This approach reduces the overall impact outdoor conditions have on the Heating & Cooling loads, making the HVAC systems more resilient

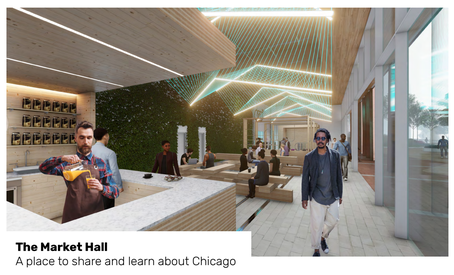
Natural ventilation
Operable windows allow for fresh air relief during power outages

Stormwater management
98% on-site management of stormwater to reduce load during Urban Flooding events and minimize overall stress on the municipal stormwater system



South elevation view
of the amenity deck and solar trellis.

Rooftop amenity deck with **community kitchen, urban farm and photovoltaic canopy.**

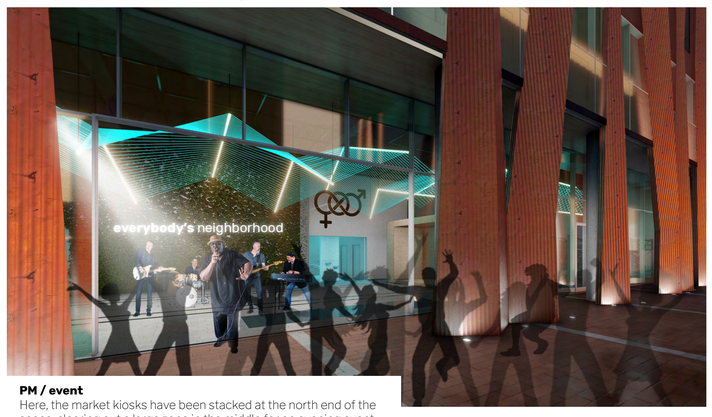


The Market Hall
A place to share and learn about Chicago

The Site
A place to gather, meander, discover, and relax.

The Market Hall
Track-mounted market kiosks are set-up to showcase Chicago-made craft. Gender Neutral Restrooms beyond.

AM / market
Market kiosks are mounted on tracks and can be easily moved to activate the space. Here the kiosks are spread out for a lively market scene

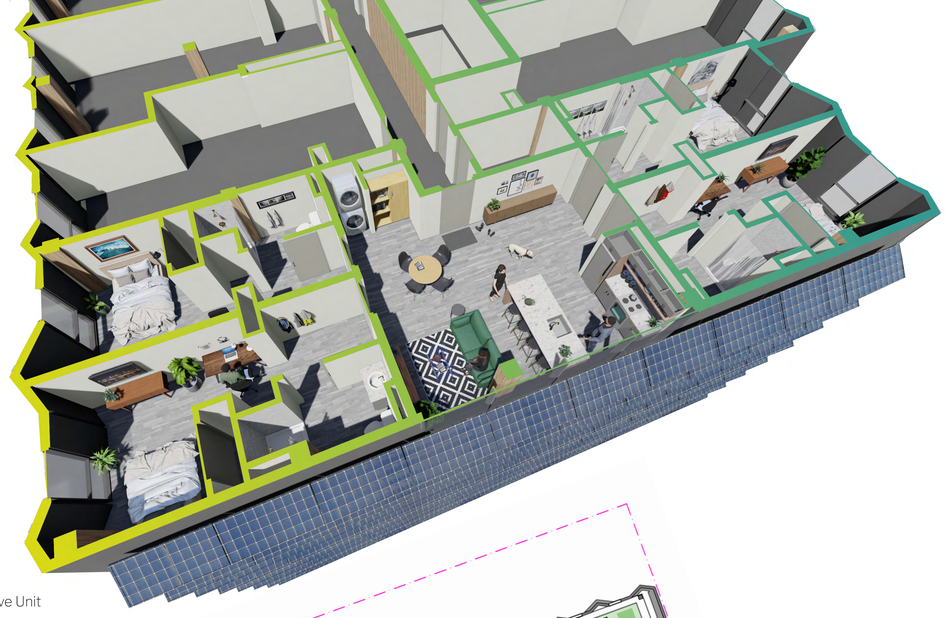


PM / event
Here, the market kiosks have been stacked at the north end of the space, clearing out a large zone in the middle for an evening event.

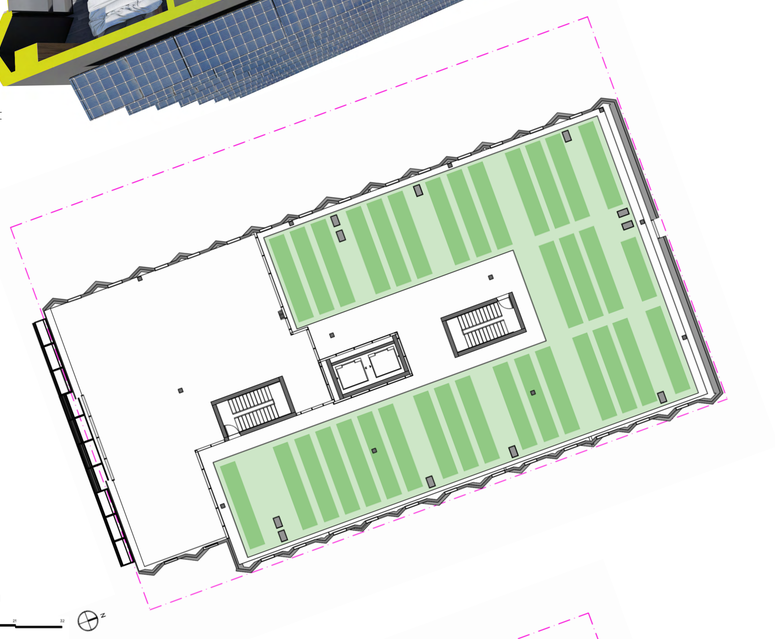
The Market Hall
Permanent Coffee Shop generates activity all day.

Residential Lobby on Plymouth Court
Biophilic patterns on the glass reduce solar heat gain and create a calming space to welcome residents.

Plymouth Court Facade
Tree-Like ribs create a heroic, modulated facade.



Co-Live Unit



Roof Plan
Urban Farm

Level 21
Amenity Deck

Levels 4-20
Residential

1. Relocated Divvy Bike Station
2. Special Paving Bend
3. Terraced Landscape
4. Raised Planter with Seat Wall
5. Structured Bench
6. Movable Cafe Seating
7. Picnic Tables
8. Food Truck
9. Lawn
10. Lounge seats
11. Rain Garden
12. Stage
13. Ampitheater
14. Market Space
15. Gender Neutral Restrooms
16. Community Center

Dynamic Solar Panels
The rooftop photovoltaic panels run north-south over the length of the roof but are mounted to sun-tracking "rockers." As the sun moves from east to west, the PVs high above the building follow the sun, rotating and capture as much power as possible. The rockers increase the efficiency of these PVs, and their movement ensures that all the rooftop plantings are exposed to the sun sometime during every day. All told, the combination of façade and rooftop PV panels will **generate 22% of the power** needed to operate the building.

Co-Live Suite Interior View
View of shared living, cooking, and dining space.

The Amphitheater
A space to enjoy outdoor performances or relax in the sunshine.

The Plaza
A gathering space for people, food trucks, and CMM's mobile design center.

The Lawn
Quad-like space in the heart of the City.