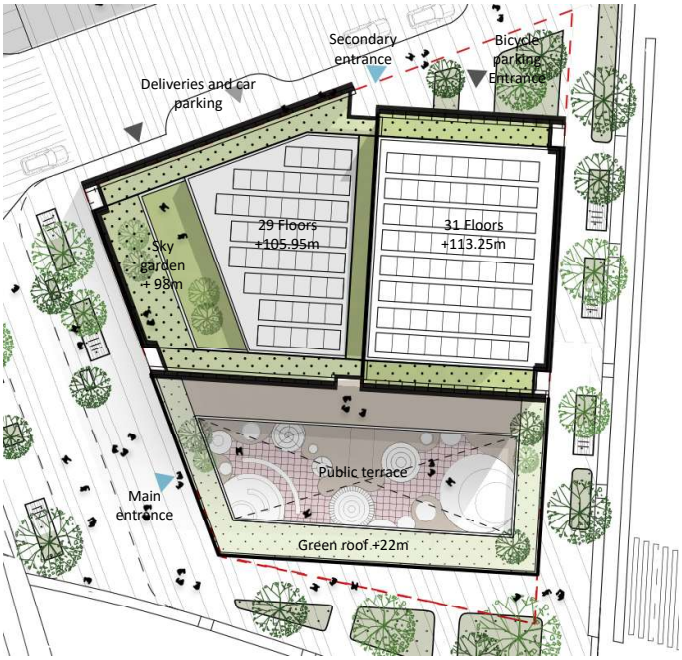
Central Idea
If we create a place for the city where the city life can unfold, life and tenants will naturally come. Our design is split into a base respecting the existing context, with an office tower above. We call the main entrance to the building for the urban living room. This is an unheated public space protected from the elements. This is the main entrance to the building and it is filled with plants. A generous staircase connects all floor together and ends in a public terrace on the top of the base. There the Arts and culture program creates a strong public destination.

The tower above the base rises up in two slender elements with a clear articulated light façade expression that culminates in a crown. The proportions are slender and elegant from all directions. The crown is light and articulated and designed to disappear in the skyline. To the South a field of PV-T panels harvest the sun. The T stands for Thermal panels and we use these to heat the building and the water. To the North we have the same façade but without the panels. The building uses simple technology to achieve big sustainable gains.

Urban Approach
The height can be argued in the hierarchy as a hinge spanning from the Edge Tower at 143 meters and the dominant majority of 130-150 meters of the Alexanderplatz. Our building design lands currently at 113 meters and the Crown ends at 117 meters.


The building is composed of a base, a body and a crown



Siteplan

Two buildings in one
The public program has to be designed as a public building; the tower has to be designed as an office building. Our design is split into a base respecting the existing context with an office tower above. The base of the building is designed with an external visible and open movement that contrast the office buildings central core and movement. Already here we appeal to a building with a different character one is clearly public and one is private. Furthermore we create an urban livingroom that serves as a neutral lobby for all functions. Its an arrival space, from this space the office lobby is an important element but one of many possible choices. This creates an interesting possibility of mixing functions together and benefit from the ressources at the disposal of the office users to the benefit of the city.


The urban living room, the project ultimately mixes the formal and informal needs of the office and city environment into a new accesible hybrid.

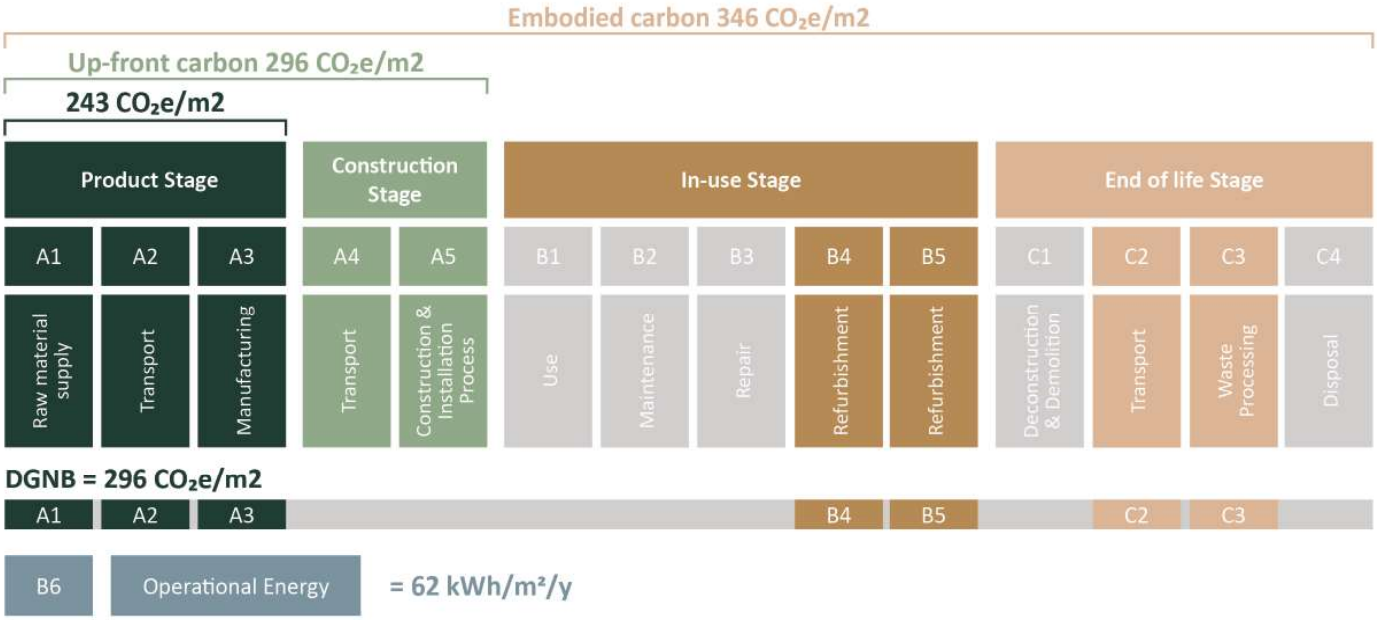
The urban livingroom
The space is organized around the South Western corner, so that it catches the noon and evening sun. It is orientated to catch the flow from the intersection and

The biophillic urban living room is the main entrance to the building. It is an unheated but protected space that can open up and extend outside of the building, when the weather allows it. The office lobby inside is just one of many options of the base. A public terrace above is a destination

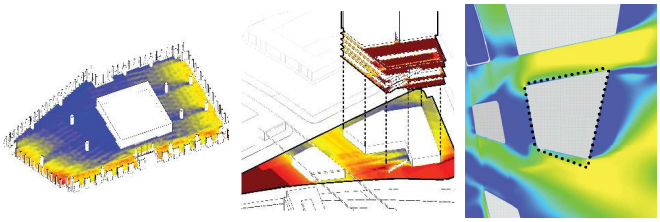
opening up to the outdoor square to the West. It is an unheated space, protected from the wind and the rain. When the weather allows for it it can be opened and the different levels can be used as terraces for lunch or informal meetings. The space is managed and controlled by the building management and is therefore safe.
The urban livingroom expands over several floors, and functions are positioned in such a way as to prioritize accessibility to functions. The space is imagined with many green walls to give the space a welcoming and biophilic nature. We also use this feature to regulate in parts the sound in the space. Visible from the train, the urban livingroom offers an aspect of interest and destination branding all year round. The staircase expresses a clear public character and goes all the way to the roof. It is a journey, some will take the elevators up and walk down the stairs. It is our experience from Copenhagen that people will walk all the way to have the experience of a public function and viewpoint above the surroundings. We have combined the large terrace of more than 500 sqm with the public programme. Together they offer a real and usable function for all. We can imagine many functions to be developed, even a kindergarden.

Sustainability strategy for operational carbon

The first principle are the passive means to achieve the best possible starting point. Our southern façade is dominated by the PVT panels and their geometry. The main technical element driving our carbon strategy is a



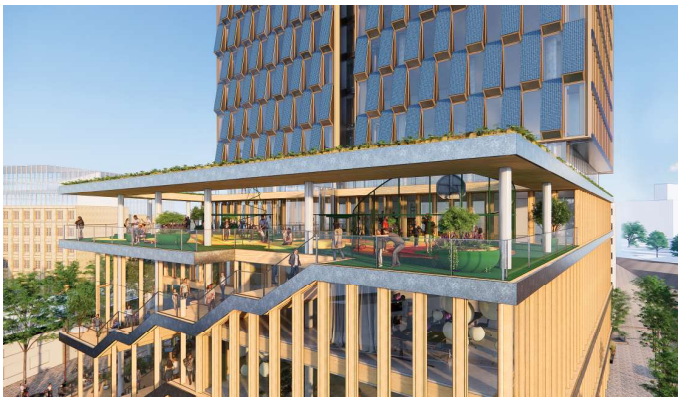
decentralized ventilation solution to have better individual control of your spaces and remove most air carrying piping in the building. This lowers ventilation energy



Studying the microclimatic impact helps us to make sure that elements and spaces perform according to expectations and functionality.

usage compared with a central plant by 65%, and still manage to recuperate 92% of heat from the air.

We have therefore been able to reduce the floor to floor height as a consequence to 3,65 while maintaining a space height of 3 meters and more. The cooling and heating is managed by passive chill beams connected to ground source heat pumps as well as the PVT panels and supported by decentralized ice banks to further cool the system during the day. Our South façade together with the roof has a combined area of 1.814 sqm of PV panels with an efficiency for Berlin of 365.820 kWh a year. Or 15% of total building consumption. Behavior is also an area of significant possible savings. People working on public holidays and weekends are few but have a significant impact on energy usage in ventilation and heating of the floorplates. Maybe a deal with the co-working could be used to work there on these days and allow the building to be more significantly put offline.



The public garden offers activities for kids and wellbeing. Its a journey up there but you are rewarded with a unique space in the city. The whole facade can be used in combination with events in the space.

Sustainability strategy for embodied carbon

Our approach to the reduction of the embodied carbon is based on several design principles. The main carrier of embodied carbon are the slabs and the façade system and its glass as well as the LCA (Life Cycle Analysis) of selected solutions. We have therefore focused on making the slabs as light as possible as this also directly affects the vertical load system and the foundations. By using bubble-decks we are able to save 30% of the material and weight in the slabs. This affects columns and foundations too. From here we have two further reduction possibilities: LCC (low carbon concrete) mixed with different aggregates can reduce the concretes Co2 impact by a further 30-60% (depending on aggregates and cement type used). Low Co2 Rebar, reduces the Co2 impact by a further 37%.

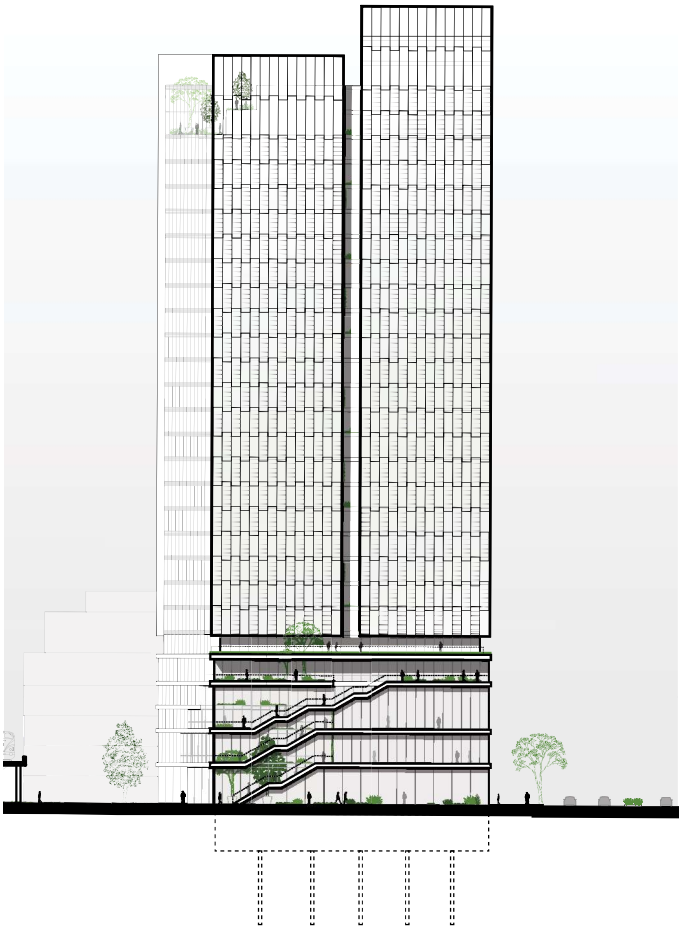
We replace all aluminium façade systems with LVL (laminated veneer lumber) framing. This will impact a narrow cavity facades total Co2 by 24% and a single frame stick system by 21%. Using upcycled glass will reduce embodied carbon by 8% and reduce excavation of new material of 1,2 tons per 1 ton of glass.

The building is composed of a base, a body and a crown

Our ventilation and cooling solution further reduce requirements for installing technical solutions in the building. This reduces technical space needs, shaft space needs, while giving better room height and usage of the building. Modern sensors and AI based learning algorithms can much better predict and control these systems. This will remedy past criticism of these systems slowness in response to weather changes. Lastly the question of reversibility of the design is one that can over time extend the life cycle of the building as it can changes usage and follow trends on the markets in the future. We believe this question is fundamental in addressing the design approach.

Materiality

Our mindset is how light can we make this building. We will where we can use upcycled materials and choose the raw over the nice. Our steel frame facade system is in the base clad with an external profiling in Accoya timber to allow for the warm tone of the building. Above in the tower this translates into a matching paint. The PVT unit geometry is a steel frame construction supporting the technical solutions. The PVT can over time be changed should the technology become obsolete.



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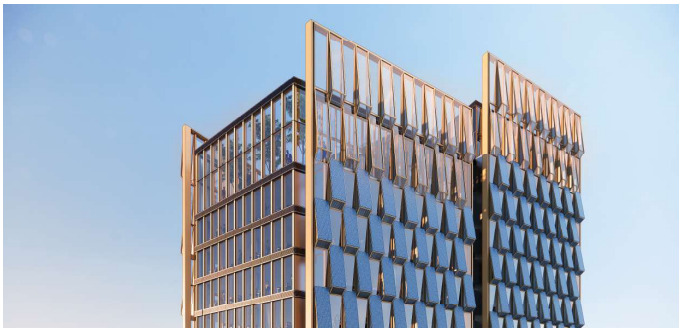
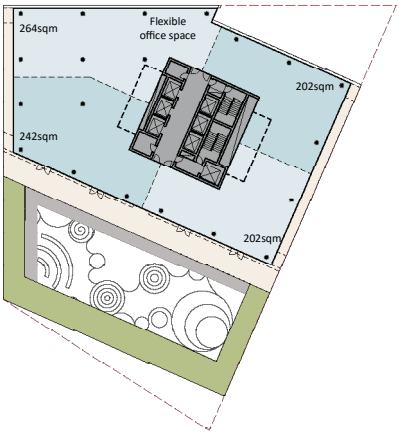


The crown is an articulation of the facade below. By setting back the floors and creating terraces a new transparency emerges. The stretched format of the panels give an extra elegance to the crown.

Internal materials are apparent concrete due to the thermodynamic activation and carpets on the floor to attenuate acoustics. The inner face of the PVT panels is perforated to have an acoustic quality.



An efficient and simple structural grid and footprint allows for a low carbon design.

Structure

The combination of a low carbon concrete structure is doubled with bubble decks. This creates a light structure that impacts the columns and foundations as little as possible. With a structural grid of approximately 8,1 x 7,5 we maintain a good ratio for the slab thickness. The central core offers the best structural stability and goes all the way to the basement. Structurally there are two systems, the support and structure of the tower and the front of the base outside the footprint of the tower.

ARROW