

Central idea

The FORUM is a slim and elegant tower in the centre of Berlin and serves as an entrance beacon at one of the most exciting intersections in Berlin. FORUM is a public meeting point in Berlin where urban dynamics are directly linked to the building's user. Where liveliness, public functions, and commercial activity are intertwined with a direct connection to the Jannowitzbrücke U-Bahn station.

FORUM is a 3-step building that explicitly and far-reaching focusses on people, their happiness, and their health. The ARCADIA plinth, wrapped in a green front yard, together with the FORUM GARDEN are inviting and publicly accessible. The FORUM OFFICES provide a healthy working environment, with overgrown balconies and adaptive floors. The CROWN roof operates as a tenant collective green spot.

Our team aims for FORUM to be an unprecedented and unrivalled asset to the city Berlin: accessible to all, a marking point on a super location, ultra-sustainable, low on carbon-impact and an enrichment to the neighbourhood. A building of comings and goings, a place to meet and greet. Whether you are a local resident, a tenant, in for a working day or merely a passer-by, in FORUM you will experience Berlin at its best!

Urban planning

The plot of the FORUM base and tower plays an important part in the urban morphology of Berlin's Mitte district. The building lines of the design at ground level follows the original street pattern and height of Berlin's 'European' city blocks. This gives it a clear address on the Stralauerstraße/Alexanderstraße. The building is a landmark of where the original centre of the city begins. The design and height of the building mark these important qualities. It intermediates between the scales of the new towers of the Alexanderplatz to the more gentle heights of the new construction developments along the Spree.

The plinth of the building is consistent with the 22-meter height of the building blocks in Berlin. Above this height, the tower recedes significantly in shape and responds to height accents around it. It is designed as a public market hall, which feels sturdy and open to all sides. It is highly accessible from street level, making this area an expansion of the city indoors.

The main idea regarding the urban anchoring of the new building is that it is fitting to its immediate surroundings for a rich variety of inhabitants and future users. The FORUM tower stands on a pivot point between distinctly different urban morphologies of the former East and West Berlin. We address these qualities by introducing a new urban space: ARCADIA. The 20 meter high dome shaped space cuts right through the centre of the lower levels of the FORUM tower, thus connecting the east side of the Alexanderstrasse and its urban quarter to the west side of the Dircksenstraße. This part of the Dircksenstraße is connected via a green zone to the park at the River Spree. The West façade of the new building is slightly bend -reacting to the curvy S-bahn- defining a new pleasant pedestrian zone for all, preferably car free and pedestrian centred. We could envision that the structure underneath the S-bahn can be refitted into a nice small scale neighbourhood café.

Architectural concept

The building essentially is a tower on top of a plinth block. The tower is architecturally vertically developed to give it a slender and light appearance. The plinth block is more "grounded" as it stands firmly with its feet on the ground while still being open and transparent to all sides. In the forum we bring together a mobility hub, culture & education, health & wellness, workspaces, a food court, and community spaces. The program emphasizes on the themes of 'green' and social'. All parts unite in the heart of the building. The plinth block is characterized by FORUM ARCADIA and FORUM GARDEN.

FORUM ARCADIA is the 20 meter high entrance hall that cuts right through the multi-use building and connects from east to west to the Spree and also from the generous bicycle hub in the basement to the collective FORUM GARDEN on the 22 meter level. It is truly the back bone of the building. The 3 main sections of the building can be accessed by the ARCADIA heart of the building. They are publicly accessible at every level of the plinth via stairs, elevators, and walking bridges. All three sections are interconnected.

In the FORUM ARCADIA locals will blend in with tenants. A passage one can use as a short-cut from the Dircksenstraße, where the main entrance is located, to the Alexanderstraße. From a car-free zone towards the U-Bahn and the adjacent neighbourhood. Where people and bikers can freely move and mix and where a program of health & wellness, flexible working spaces and education & culture can be accessed and merged.

From street level you can already see the vegetation of the FORUM GARDEN. A place to dwell, spend some quiet moments amidst the city, meet friends and have a cup of coffee. The plantings create an atmosphere of peace and serenity, frames certain views and protects the visitor from the wind. The GARDEN is open to everyone, from tenants to locals, making this garden a special place in the heart of Berlin. It offers an all-round view of the city. It also provides contact with the street level. Due to a smart design in the cross-section, wind fall is prevented at this height.

Seemingly "hovering" over the FORUM GARDEN is the tower with its efficient multitenant office floors. The FORUM OFFICE has floors of approximately 1115 m², all positioned around a compact facility core. On the Spree side there is a balcony zone every third floor to shield the sunny south side from too much warming up while also introducing green zones on the higher levels. The floors are easy to divide for one, two or four tenants. Vertically we introduce a flexible system to link up the office spaces if required. Thanks to this hybrid smart support structure, FORUM OFFICE floors can also be easily changed and joined together in the future. With wood as the main building material, attractive daylight and a balanced ventilation system, an indoor climate is created that provides a sustainable and healthy working environment.

The FORUM CROWN (right) offers not only a premium office space, but also a surrounding roof garden for the tenants of the FORUM building. The terrace between the arcade and the façade ensures a pleasant climate for the users of the CROWN garden and the CROWN tenants. The wooden structure of two office floors create flexibility in the program, so that in the future the CROWN can be adapted according to the client's needs. From the CROWN, tenants can enjoy a 360 degrees view towards the city and its landmarks. Making this building a highly unique addition to the 'Experience Berlin' principle.

Sustainability concept

FORUM is a building that explicitly and far-reaching focusses on people, their happiness, and their health. And this shows in every detail. With every single design solution we make considerations that benefit people, and our planet. In all decisions, we strongly focus on the physical and mental well-being of the users and visitors. Daylight, indoor climate, healthy exercise, and food are important parameters in our considerations.

However, in all the social physiological optimizations, we do not lose sight of economics and technology. After all, they are the hidden opportunities and the underlying preconditions. Therefore in technology, we will pursue low-tech solutions on all levels, in all details, with economics always in mind.

During the design process, together with the client and engineers, we strive to create the most sustainable building possible, where all creators can proudly say that everything has been done to keep the carbon impact of this building as low as possible. In doing so, we always combine a curious, innovative, and refreshing outlook with experimentation in the most positive sense of that word.

A selection from our proposed solutions:

Materials and construction method

1. Low-emission materials within a hybrid construction concept (where possible timber, where needed steel and concrete)
 - Main supporting structure (core and stability floors) in concrete (maximize use of recycled cement/concrete)
 - Every in-between floors (66% of all office floors) in engineered timber floors (prefabricated/demountable) sourced from EU forestry and regionally manufactured.
 - Sub-structure supporting floors in precast concrete columns and prefabricated beams made of 90% recycled steel cutting co2 emissions up to 50%
 - Low-carbon glass-façade cutting co2 emissions up to 52% (low-carbon glass and aluminium)
 - Up-cycled bricks for façade cladding of lower plinth.
2. Maximize offsite prefabrication for faster, safer, and efficient construction, maintenance and eventually disassembly.
3. Design and build using full potential of BIM and designing for manufacturing, maintenance, and disassembly.
4. Maximize use of biobased materials.
5. Use of alternative transportation methods to and from building site (water and rail).

Operational emissions

1. Low-energy and smart heating, cooling and ventilation system making partly use of renewable energy generated on-site via PV panels and supported by the city heating net.
 - The building actively helps to enhance the urban micro-climate through an innovative cold supply concept in cooperation with the local utility company.
 - The building will be heated using district heat generated at the Mitte thermal power station directly across the river Spree.
 - The heating supply will be complemented with smart cooling using a high-temperature heat pump producing the cold required locally and does not discharge the resulting waste heat into the

environment as conventional systems do but feeds it into the city heating system instead. The energy employed is therefore used more efficiently.

- In addition, the normally required roof-mounted chillers is no longer necessary, which saves on resources and frees the roof areas for other purposes. No noise or heat emissions are created on the roof of the building, and we are contributing to a better urban climate.
- Using the photovoltaic panels on the roof and on the vertical fins of the façade to produce the required electricity, we can achieve co2 neutrality regarding the cooling needs.

2. Pre-engineered possibility to connect 2 or 3 floors by disassembly/addition of timber floor elements and staircases. Elements can be dismantled via façade, using the façade cleaning installation, and eventually stored offsite.
3. Low-energy and smart transportation solutions for elevators, escalators, and access control, like destination dispatch and regenerative braking system.
4. Green Park, rooftop, and green balconies: Both green roofs will be using an environmentally efficient irrigation system recycling rainwater and storing it locally in retention reservoirs.
5. Façade with integrated sun and glare control (orientation dependent: film, blind, vertical fins) to mitigate the heat and cooling needs. Although the FORUM tower is looks relatively transparent with an open-closed percentage of around 65% we use a lot of sun and glare control measures. Green balconies on the sunny south side of the tower, vertical ribs on all sides except North and individually controlled screens.
6. Overall LED lighting with co2 and activity sensors.
7. Mobility strategy focusing on maximizing usage of public transport and premium bicycle facilities onsite.

End-of-life

1. All prefabricated parts can be easily disassembled and reused or recycled.
2. Materials are kept as pure as possible to ensure they retain value for reuse or recycling.

Biodiversity

FORUM OFFICE has a healthy working environment with greenery at all levels. Flora and fauna are attuned to the heights of the building and form a balanced system.

Vegetation

Aligning with the BERLIN URBAN LANDSCAPE STRATEGY's vision of "Urban nature," we aim to conserve current biotopes while enhancing biodiversity within urban areas, thus fostering novel experiential opportunities.

Sponge city

The rainwater is collected on the roof of the market hall, at the FORUM GARDEN level. This water collection system is used to sustain the greenery in the building all year round.

Structure

- The main supporting structure (core and stability floors) is in concrete.
- The sub-structure in precast concrete columns with demountable bolted connections.
- Every in-between floors (66% of all office floors) in engineered timber floors which are prefabricated.
- Pre-engineered possibility to connect 2 or 3 floors by disassembly/addition of timber floor elements and staircases. Elements can be dismantled via façade, using the façade cleaning installation, and eventually stored offsite.

Hybrid construction.

Every third floor is made of concrete. Most of all other floors will be constructed of wood. This has a high impact on building-related CO2 levels. It reduces construction weight, which has an advantageous effect on the foundation. It also has a favourable effect on transport costs and construction time.

Façade

The façade of the tower is 65% open and filled in with low-carbon glass-façade cutting CO2 emissions up to 52% (low-carbon glass and aluminium).

On the South side of the tower there is a balcony zone where tenants can open the windows to sit outside. This zone will be greened and shaded from the sun.

Sun shading

The building adapts its sun shading to the four-cardinal point: east, west, north, and south. Sun shading is achieved by using vertical fins, which also double the number of solar panels. The fins vary in depth according to the façade: on the south they are the deepest, creating the most shade. In between the fins low tech screens are installed.

Wind deflection

Wind fall is avoided by an intelligent cross-section and ensures an improved climate both on the ground level as well as on the roof garden.