

Lister Dreieck [EN]

by Bea Steindor / 2021-03-25 12:30:08 / Deutschland / 124 / DE

New Construction



Building Type : High office tower > 28m
Construction Year : 2019
Delivery year : 2019
Address 1 - street : Rundestraße 11 30159 HANNOVER, Deutschland
Climate zone : [Cfb] Marine Mild Winter, warm summer, no dry season.

Net Floor Area : 27 079 m² NGF
Construction/refurbishment cost : 66 000 000 €
Cost/m² : 2437.31 €/m²

Certifications :



Primary energy need :

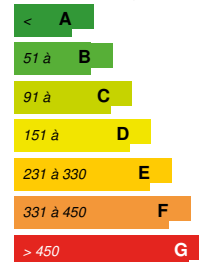
90 kWhpe/m².year

(Calculation method : DIN V 18599)

ENERGY CONSUMPTION

Economical building

Building



Energy-intensive building

Description

In the center of Hanover, west of the main train station, KÖLBL KRUSE developed the Lister Triangle for Deutsche Bahn AG from 11 | 2016 - 05 | 2019 based on the design by the Berlin architecture firm Hascher Jehle. The building project was carried out jointly by the HOCHTIEF Building branches in Berlin and Hanover. The building is owned by a special club deal fund of Savills Investment Management Germany GmbH.

Due to the internal structure of the building, an extremely flexible office organization can be implemented in the Lister Dreieck. It offers space for around 1,000 railway employees who previously worked at nine locations spread across Hanover. As the first so-called "Flex House" of the DB, the building offers optimal conditions for the "flex @ work" concept. In this way, employees can work in different room modules and through desk sharing, flexibly in terms of location and time, at different work locations in the building or outside. The subject of third-party usability (flexible floor plans) - one of the key issues when it comes to sustainability - was planned and consistently implemented in the Lister Dreieck right from the start.

A key theme of the design is the large atrium with a high potential for attractive uses and opportunities for encounters. Overall, the design offers an unmistakable address with a high recognition value.

Historic buildings in Hanover served as inspiration for the facade of the 30,500 m² building. The materiality of the outer shell is based on the timeless classics of Hanoverian masonry architecture. In this way, the Lister triangle fits harmoniously into the urban context. The shape of the building develops as a perimeter block development from the triangular shape of the property of the surrounding streets and staggered back upwards. Between the new central bus station, the eye-catching VW tower and the pedestrian zone

Karl-Heinrich-Ulrich-Straße, the new building manages to assert itself on the one hand visually and on the other hand thanks to the low, rounded edge of the building

To integrate corners and the rearrangement harmoniously into the environment.

In 2020, the German Sustainable Building Council (DGNB) awarded the project a certificate in "Platinum" - the highest award category. In order for a building to exceed the "magical" platinum limit, an extraordinarily high quality must be achieved in all five result-relevant categories. The Lister Dreieck scored very well in terms of economic, ecological, functional, technical and procedural quality. At this point, the topics of material ecology and sustainable construction processes are particularly to be emphasized. In the construction process, the compliant, environmentally friendly use of materials was continuously checked and thus guaranteed. The requirements for waste management were exceeded, the recycling content of the built-in building materials was observed and the low-noise and dust-free construction site was continuously optimized.

See more details about this project

<https://koelbl-kruse.de/bauprojekte/lister-dreieck-hannover/>

<https://www.dgnb-system.de/de/projekte/neubau-buerohaus-lister-dreieck>

<https://www.hochtief.de/aktivitaeten/highlight-projekte/europe/lister-dreieck-hannover>

<https://www.hascherjehle.de/buerogebaeude-db-lister-dreieck-hannover/>

<https://rkw.plus/de/nachricht-projekte/schluesseluebergabe-lister-dreieck/#>

Data reliability

Assessor

Photo credit

Roland Halbe Photography

Stakeholders

Contractor

Name : KÖLBL KRUSE GmbH

Contact : Bea Steindor, steindor@k-k-p.de, Essen

Construction Manager

Name : HOCHTIEF Building

Contact : Christian Kemper, Christian.Kemper@hochtief.de, Frankfurt am Main

Owner approach of sustainability

Due to the internal structure of the building, an extremely flexible office organisation can be implemented in the Lister Dreieck. A core theme of the design is the large atrium with a high potential for attractive uses as well as opportunities for meetings. Overall, the design offers an unmistakable address with high recognition value.

Historical buildings in Hanover served as inspiration for the façade of the 30,500 m² structure. Thus, the materiality of the outer shell is based on the timeless classics of Hanoverian masonry architecture. In this way, the Lister Dreieck blends harmoniously into the urban context. The shape of the building develops as a

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Karl-Heinrich-Ulrich-Strasse, the new building manages to assert itself visually on the one hand, and on the other, through the low building edge, the rounded corners and the staggering back, to create a harmonious impression.

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Architectural description

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Energy

Energy consumption

Primary energy need : 90,00 kWhpe/m².year

Primary energy need for standard building : 107,00 kWhpe/m².year

Calculation method : DIN V 18599

Final Energy : 95,00 kWhfe/m².year

Breakdown for energy consumption :

Heating 40.9

Drinking water 10

Lighting 19.5

Ventilation 15.8

Cooling 9.2

Renewables & systems

Systems

Heating system :

- Urban network

Hot water system :

- Urban network

Cooling system :

- Urban network

Ventilation system :

- Natural ventilation

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Renewable systems :

- No renewable energy systems

Environment

Life Cycle Analysis

Life cycle assessment according to DGNB. All LCA data used comes from Ökobau.dat2016. Application of the simplified procedure.

Indoor Air quality

The indoor air measurement according to the specifications of the DGNB formaldehyde values between 5.8 and 6.9 (yg / m³).

Health & Comfort

Health & comfort :

The life cycle assessment for the criteria ENV 1.1 / 2.1 was calculated over a life cycle of 50 years in accordance with the DGNB specifications. The following environmental categories were considered:

Building life cycle assessment - emission-related environmental impacts (DGNB criterion ENV1.1)

- Global warming potential (DGNB criterion ENV1.1.1),
- Ozone depletion potential (DGNB criterion ENV1.1.2),
- Summer smog potential (DGNB criterion ENV1.1.3),
- Acidification potential (DGNB criterion ENV1.1.4),
- Eutrophication potential (DGNB criterion ENV1.1.5),

Life cycle assessment - primary energy (DGNB criterion ENV2.1)

- Primary energy not renewable (DGNB criterion ENV2.1.1),
- Total primary energy (DGNB criterion ENV2.1.2)
- Renewable primary energy (DGNB criterion ENV2.1.3)
- Abiotic resource consumption ADPelements (DGNB criterion ENV2.1.4)
- Water consumption fresh water (DGNB criterion ENV2.1.5)

Costs

Urban Environment

Urban environment

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Land plot area

6 500,00 m²

Building Environmental Quality

Building Environmental Quality

- Building flexibility
- indoor air quality and health
- consultation - cooperation
- acoustics
- comfort (visual, olfactive, thermal)
- energy efficiency
- maintenance
- building end of life management
- integration in the land
- mobility
- building process
- products and materials

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