

press information

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Investor Competition 1st Prize
Energy-Optimised Local Shopping Centre
Entrance Element – Murnau Development Zone

Kemmelpark

A design for an energy-optimised local shopping centre at the entrance to the Murnau Development Zone for Ten Brinke Projektentwicklung GmbH is selected as winner of an investor competition.

www.kemmelpark-murnau.de



short

ATP Munich was commissioned by Ten Brinke Projektentwicklung GmbH to develop a concept for an energy-optimised local shopping centre which would play the key role as the main entrance to the site.

The design proposes the creation of a powerful building volume in which such various individual elements as a discount store, a supermarket and other small shops are integrated together by means of a uniform façade created out of timber slats.

Two-storey areas reflect the street alignment of Kimmelallee. The result is the creation of a calm, modern building volume.



Site Plan

central idea

The design proposes a **distinctive building form as an opening element for the Kemmelpark development zone.**

The individual building elements are drawn together into a **horizontal volume. Two-storey areas** reflect the street alignment of Kemmelallee and it is the positioning of these elements which draw visitors towards the entrances.

The building has a homogeneous horizontal larchwood cladding which helps to establish a calm modern building volume on Kemmelallee. The choice of timber is an attempt to establish a local accent.

Incisions at the entrances open up the envelope. The diagonal lines to each side of these entrances create a dynamic form which becomes both a design feature of and a symbol for the local shopping centre. The concept is taken further in the interior with a longer incision opening the building up to the car park.

By stepping the timber cladding forward at the corner of the building a canopy is created for customers at the entrance to both stores. Between the two anchor tenants there is a series of smaller spaces for service-providers. An offset on Kemmelallee allows for the preservation of the single building while this narrowing of the building improves East-West and North-South connections.

Access to the site for both cars and deliveries is via the northeast corner. The two anchor tenants have their own delivery bays. The central landscaped parking area contains 155 spaces.

Perspective, Two-storey street elevation to Kemmelallee



mechanical engineering

Energy Concept – Sustainability

The objective of the energy concept is that as little energy as possible should be required from external sources. This is achieved by using the district heating generated by the municipality's own woodchip-based biomass plant.

Heat is transferred via heat exchangers and it is not necessary for the building to have its own heat production plant – with space being saved as a result.

The heat generated by the production of cooling for the cold stores or shopping areas can be fully used if required for heating the space – rather than being discharged into the environment. Absorption cooling plant meets the centre's basic cooling needs.

By combining a number of ideas from the areas of intelligent building and building technology, the centre – with its ecological and sustainable energy concept which undercuts EnEv levels by at least 40% - is a model of sustainable design, low operating costs, lower consumption and increased comfort.

This sustainable energy concept draws on the following measures and technologies:

- Rejection of the idea of the fully glazed shopping centre and use of opaque building elements
- Compact building form and low area/volume relationship
- Higher insulation standards and triple glazing
- Mini-slats in the glazing which deflect daylight regardless of the weather and hence provide solar and visual protection (office areas)
- District heating from woodchip-based biomass power plant
- Use of the exhaust heat from the cooling machinery for space heating purposes
- Reduction of the heating load through mechanical ventilation with highly efficient heat recovery
- Small heat pumps to establish optimal temperature levels for tenant fit outs (optional)
- Basic cooling requirements covered by absorption cooling plant
- Use of rainwater
- Decentralised generation of warm water to minimise cooling losses
- Night cooling via mechanical ventilation
- Use of PCM (phase change) materials

mechanical engineering

Ventilation Concept

- Use of mechanical inlet and outlet plant with highly efficient heat exchanger in order to reduce energy use and improve comfort
- Undercutting of EnEV levels by at least 40% through reductions in the volume of moving air and the consequent high savings of both electricity and heat energy.
- Use of PCM materials as a means of increasing storage volumes and reducing cooling loads across the day.

structural engineering

- Single-storey main sales areas with two storey wing (office, plant, social areas):
- Roof consisting of metal panels on reinforced steel beams
- These beams are supported by prefabricated reinforced concrete columns built into point foundations
- In-situ concrete floor slabs and beams in the two-storey area with prefabricated structure and metal cladding at upper level.
- Non load-bearing floorplate (watertight construction as required): Continuous frost aprons.



project information



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Ten Brinke is a leading international company in the area of the development and construction of industrial buildings and shopping centres. The company operates across Europe from its headquarters in Varsseveld (NL). For more information: www.tenbrinke.com

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