

The Netherlands' housing challenge looms large with the trend of new housing construction expected over the next years. In this context, new locations are transforming and preparing to be new residential neighborhoods. Pernis is a booming neighborhood, with lower prices and good access to downtown. With the location in a semi-industrial area, the objective was to create a new meeting point for the residents of the residential complex and the neighborhood, with paths, spaces for permanence and vegetation, and integration between the interior of the housing units without setting aside the main objective of reducing the environmental impact of new construction.

The project's starting points were the connection between exterior and interior and indoor air quality. A large block of apartments that occupy the edge closest to the river, with common areas facing north and openings that frame the views. All the windows in the rooms face south and face the large square designed in the complex. The positioning of the buildings was also thought to avoid shading in the windows of the apartments, taking the best possible use of natural light and sun inside the environments. The bike rack was positioned to provide bicycle storage spaces on the ground floor. Car spaces are shaded by the canopy of two trees and a permeable paver floor with grass was implemented in the parking lot to reduce the heat island effect. Two preferential parking spaces were also positioned to encourage efficient and low-emission vehicles use.

It is possible to work from home in a space integrated with the living room or work desks inside the bedrooms. Considering that most people spend 90% of their time indoors, our team was concerned with the environmental quality of the apartments and designed openings that allow daylight, in addition, to promoting quality views to the exterior.

This strategy also allows the reduction of electrical energy consumption for lighting. Thermal comfort strategies were also used with envelope insulation to avoid heat exchange with the outside in winter and the window shading summer to prevent solar radiation inside the apartments.

