HARBOUR HOUSES: RESIDENTIAL COMPLEX IN THE PORT OF AARHUS

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Categories: ADEPT, Energy and sustainability, Middle Density, Project, Urban Paradigms

Tags: Aarhus, Affordable Housing, Collective housing, Courtyard, Denmark, Façade, Greenhouse, Industrial context, Multiscale approach, Project, Rooftop, Skylight, Solar Energy, Sustainability, Thermal comfort, Waterfront, Watery Territory, Zero Energy

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Common greenhouses on the roof tops, adjacent terraces overlooking the bay of Aarhus, and a sheltered green courtyard: this is the essence of the Harbor Houses, a new residential complex in the port of Aarhus, which breaks with both the port's massive scale and current iconic building tendencies. The 13,200 m2 project consists of 262 public dwellings distributed into 83 apartments for families and +55 aged seniors, along with 179 student housing units, completed in May 2015.

The architects ADEPT and LUPLAU & POULSEN have taken the best aspects of the city's existing

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block structure and reinterpreted it, providing a modern and sustainable expression on the waterfront in Aarhus Northern Harbor (DK). The simple building arrangement benefits from shared greenhouses on the roof, varied building heights and sustainable initiatives that make the new dwellings robust and future-proof. The housing structure adapts to its context which comprises, on the one hand, a large industrial scale and, on the other, a smaller and intimate scale with a lively maritime atmosphere.

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Placing the building volumes along the edge of the site has proven to be highly appropriate for the location. It gathers the dwellings around a large green courtyard sheltered from the wind and creates the best sun and daylighting conditions for the apartments. The development is built predominantly in brick, dropping in building height towards the water and the marina. In addition, the building structure subdivides into smaller buildings, marked by varying heights and subtle changes in façade expression. The building's division into smaller buildings relates to the human scale and creates affinities between the residents and the individual 'town house'. The sunny roof surfaces are furnished with greenhouses, common areas and living terraces with excellent views of the city,

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forest and bay. The remaining roofs are green surfaces for both collecting rainwater and supporting solar panel arrays.

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The settlement is a zero-energy building, which, with its solar panels and greenhouses, takes more advanced steps toward meeting future energy requirements than those currently formulated by the municipality and the state government. The client expects the future settlement to meet the energy requirements of 2025 – an energy class not yet formulated.

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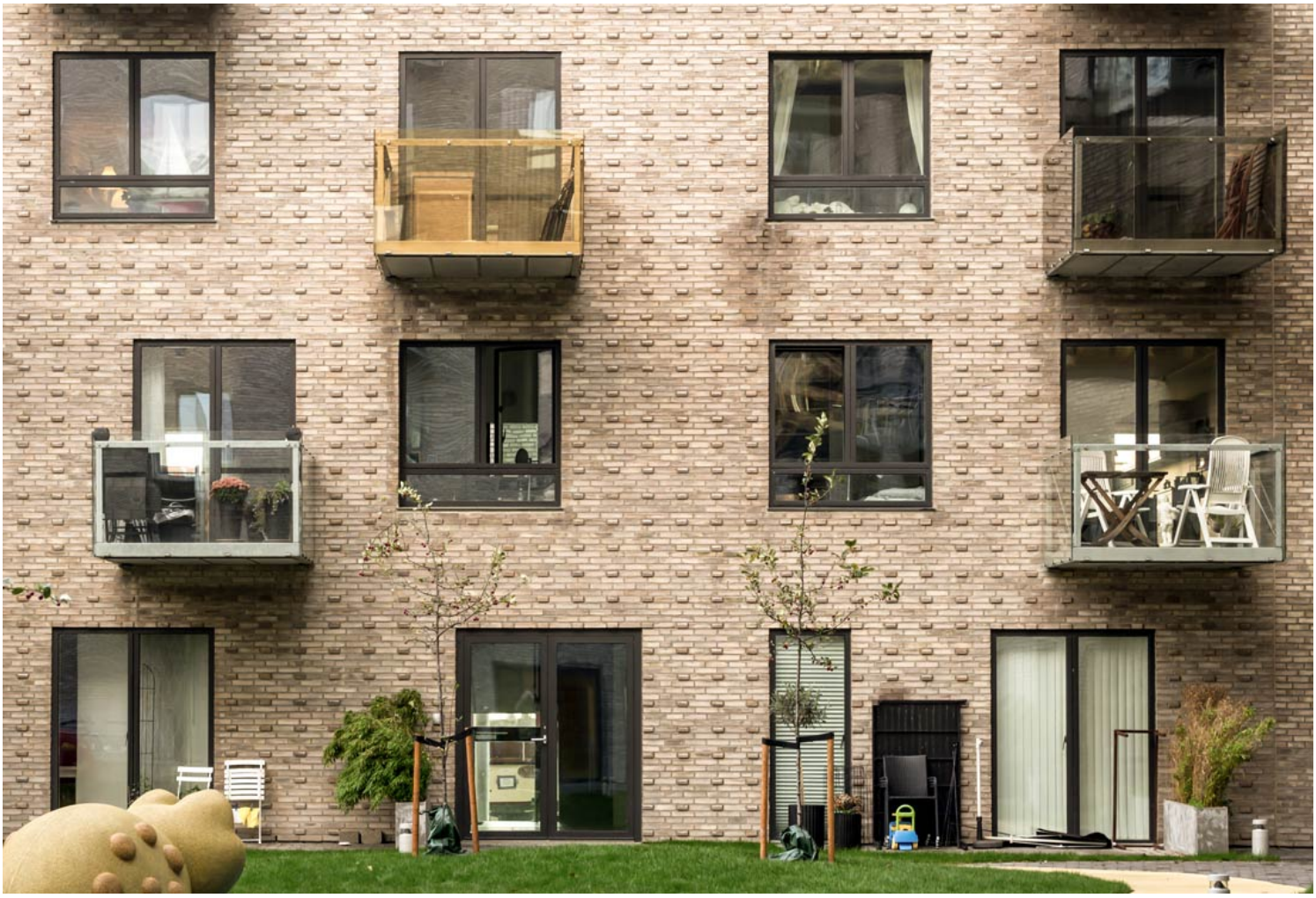

Among the sustainable initiatives that put Harbor Houses on the cutting edge are thermal heating from 21 vertical and 150 m deep drillings, hybrid panels combining solar panels and solar collectors, five heat pumps and several energy wells. Grey wastewater is collected and recycled, providing almost 60% of the building's energy consumption. Both façade and materials were carefully designed to meet highest standards. At the same time, the dwellings were built within the allocated budget, which allows rents to be competitive, even among the cheapest on a comparable market.

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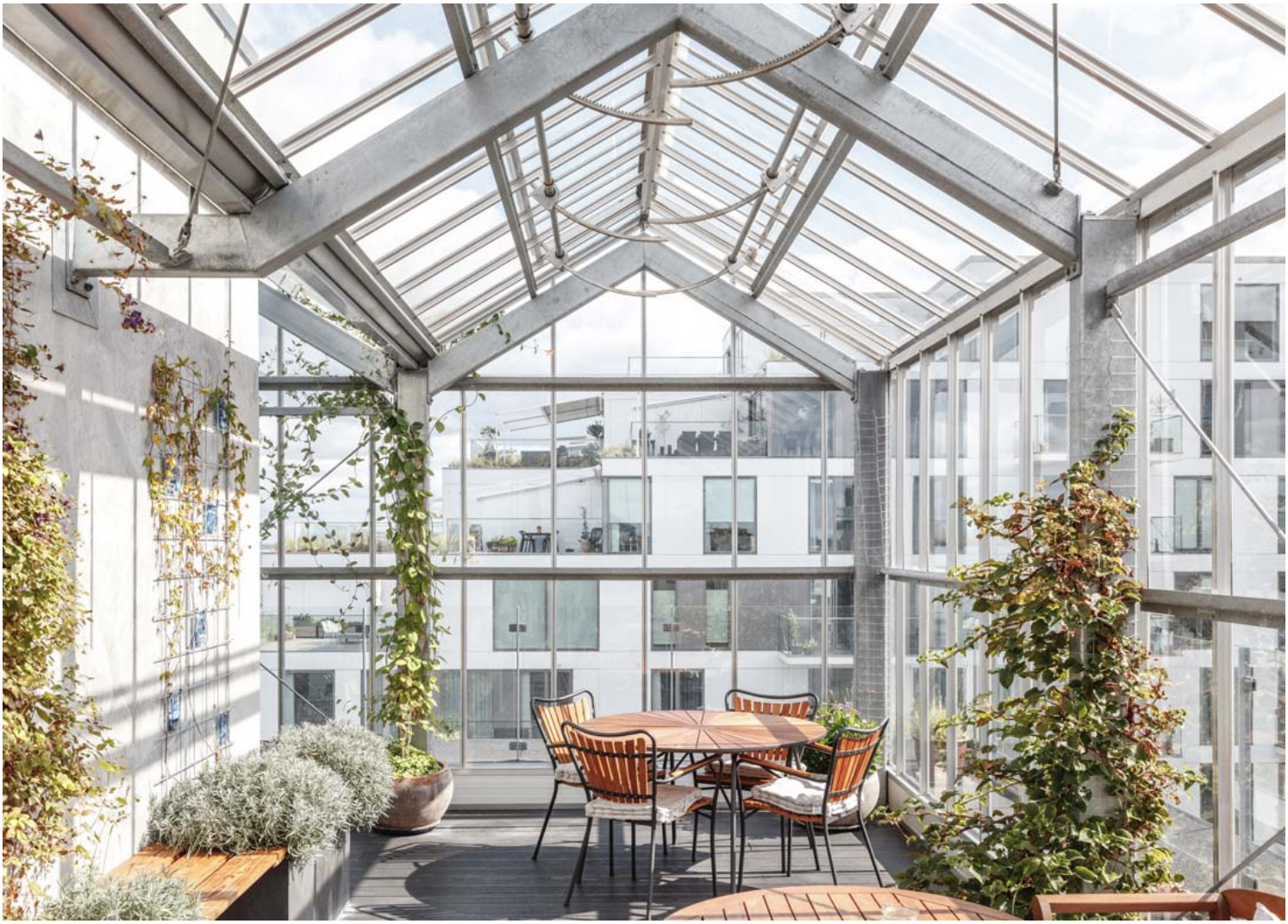

Harbor Houses is a story of architecture with an urban perspective, scale and sustainability.

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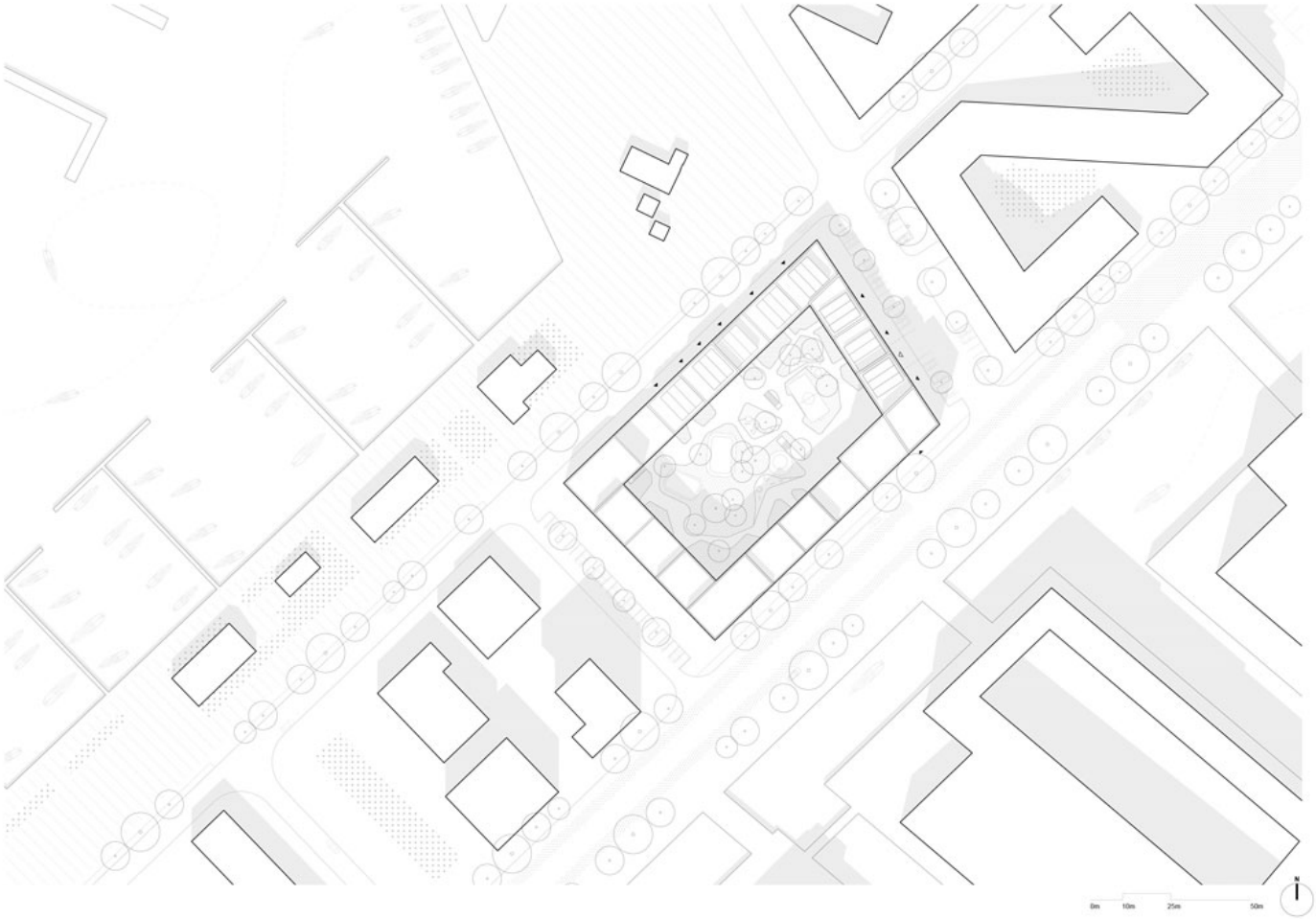

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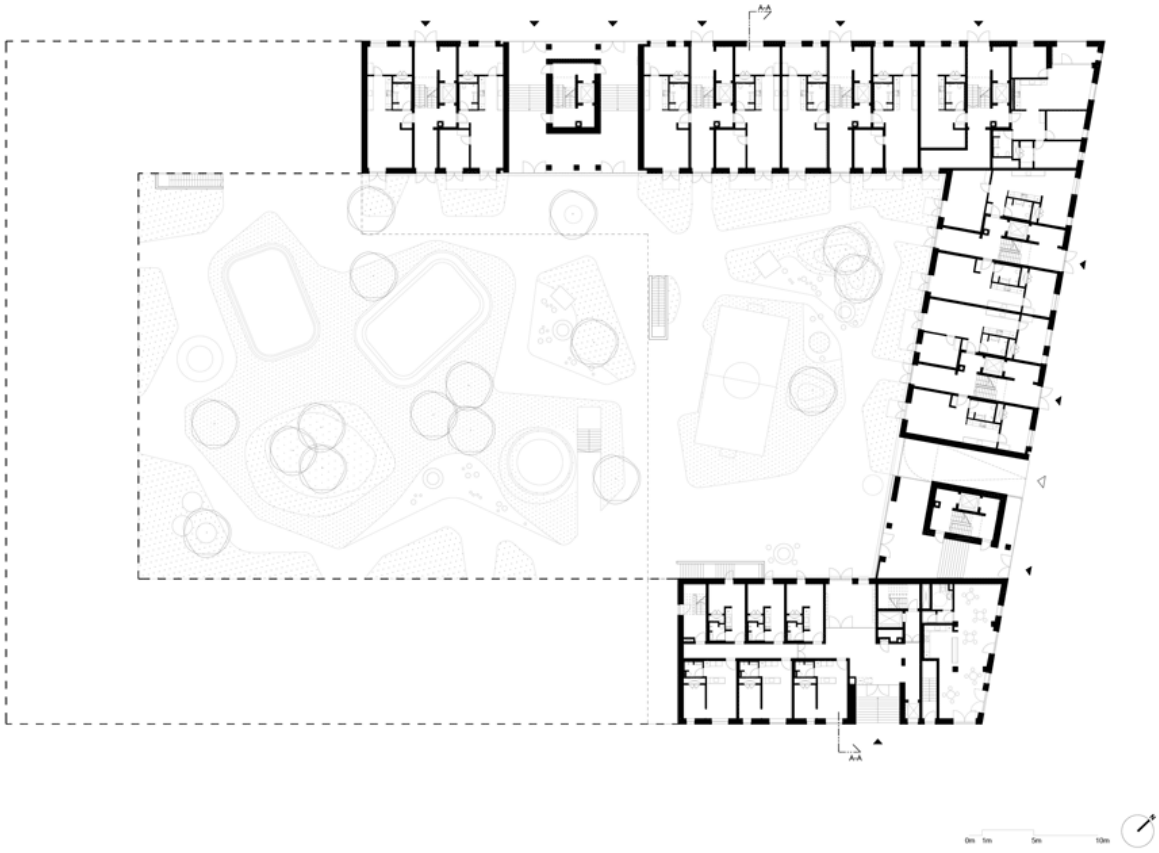

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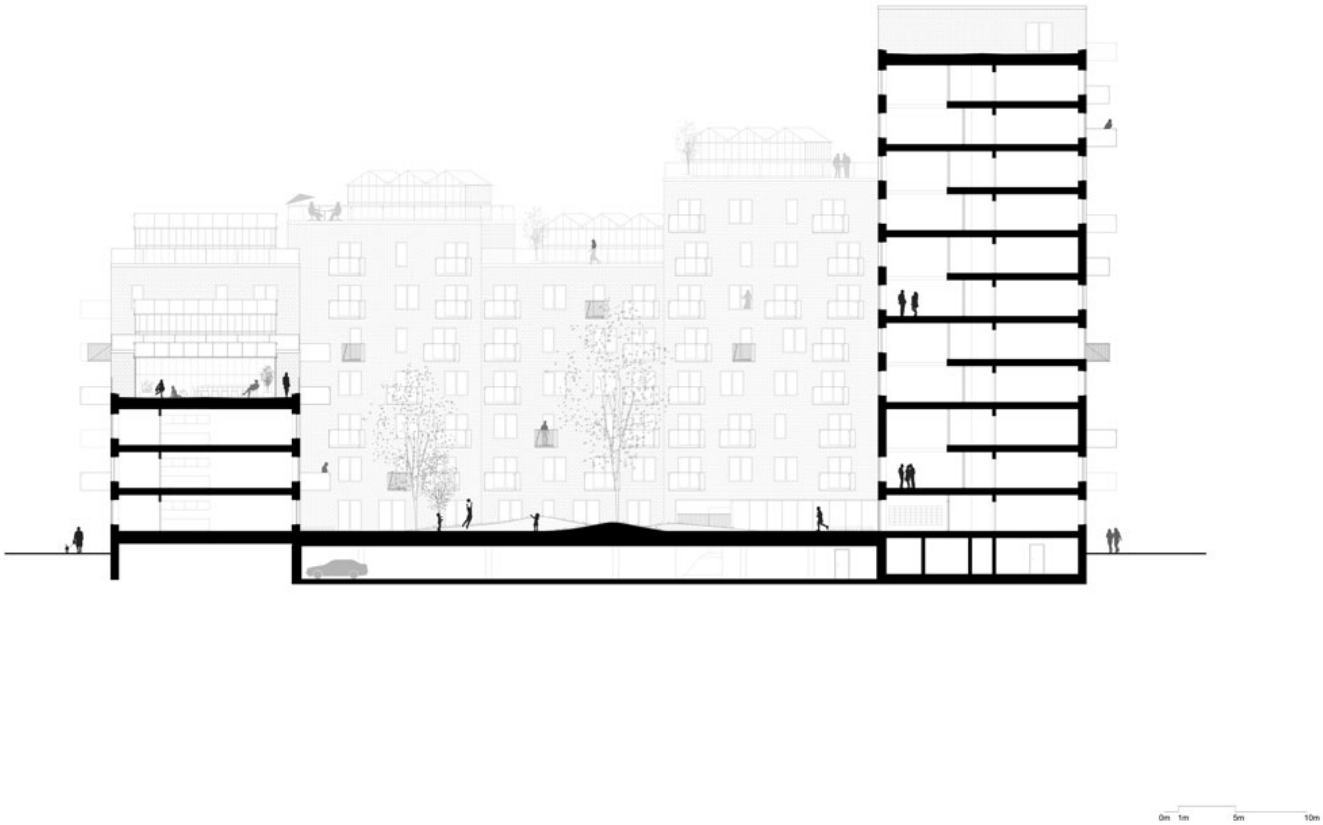

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