**HSB landmark competition Stockholm**

* **The apartment complex of the future**

**Client**  \\ HSB Stockholm

**Competition year** \\ 2013

**Architect** \\ C.F. Møller Architects in cooperation with DinellJohansson

**Prizes** \\ 1st Prize in competition

**Collaborators** \\ Tyréns, Transsolar, AKT II, DeBrand

The three winning housing projects for a Stockholm landmark of tomorrow all aim to create housing for the benefit of the residents as well as their fellow citizens.

C.F. Møller Architects' consistent idea has been to create a complex of residents to accommodate a diversity of people, ranging from students and families with children to pensioners – a complex which creates ideal conditions for community spirit and busy modern lifestyles, including e.g. a supermarket, café, restaurant, fitness centre and library facilities on site. Therefore the different projects also welcome visitors and provide attractive outdoor spaces, as part of the projects’ social sustainability.

The complex will be sustainable, not only during the construction process and in the choice of materials, but also in terms of the residents' lifestyle. For example, the proposals include a bicycle and car pool operated by the housing association and apartments with kitchen interiors specially designed to make recycling easy.

The design of the façades is based on a continuous surrounding double-shell in the form of a winter-garden zone surrounding the buildings, and adding extra flexible living space to the homes. The winter gardens’ exterior glazing shelters the exposed timber structure, and acts as a thermal climate buffer zone as well as passively pre-heating the natural ventilation air intake. A reflective curtain inside the winter garden cavity can be used to reflect solar gain in the summer period, and alternatively reflect heat back inwards during the winter period.

The buildings are designed around a wooden structure with stabilising concrete cores and will act as new characteristic landmarks and meeting places in the city. Pillars and beams will be constructed using solid timber and inside the apartments walls, ceilings and window frames will be made from wood, allowing the material to also be visible from the outside through the large windows. Wood is an environmentally friendly and durable material which creates a comfortable and healthy indoor climate and effectively absorbs more CO2 during the lifecycle of building components than is released, resulting in a positive CO2 footprint.

The double-shell facades are an innovation for residential construction that creates new values for the individual homes as well as the residential building complex and its relationship to the environment. The Double Skin Facade creates a surrounding conservatory and expands each apartment's usable area and its flexibility. The escape stairs are placed inside the double-skin façade, outside the buildings’ heated floor area, thus saving space and resources. The staircases and double shell facades in that way become a social extension of the apartment.

**PROJECT I – Wooden Skyscraper**

**Address \**\ Västerbroplan,Stockholm

**Size** \\ 11450 m²

For the Västerbroplan plot in the Marieberg district, Berg | C.F. Møller has drawn up plans for a 34-floor wooden apartment building. The building is designed around a wooden structure with stabilising concrete cores.

Pillars and beams will be constructed using solid and cross-laminated timber and inside the apartments floors, ceilings and window frames will be made from wood, allowing the material to also be visible from the outside through the large windows. Wood is the natural choice when it comes to materials for innovative residential development: It is an environmentally friendly and durable material which creates a comfortable and healthy indoor climate and, surprisingly enough, also constitutes a very efficient protection against fire.

Each apartment will be equipped with an energy-efficient glass-fronted balcony and the building itself will receive energy from solar panels situated on the roof. At street level there will be a café and a nursery and, in a new neighbourhood building, all residents in the area will be able to enjoy a marketplace, gym and bicycle storage location. A shared winter garden will make allotments possible.

**PROJECT II – Office Conversion**

**Address**  \\ Fleminggatan 4, Stockholm

**Size** \\ 29.000 m² (9.450 m² new-built)

A mix of new-built and a transformation of an existing brick office building, formerly occupied by Tekniska Nämdhuset, part of the City of Stockholm, the idea behind the proposal is to retain a large proportion of the existing structure, and add a slab building and two smaller point blocks between the former office wings - a solution which, together with the jetty and new terraced stairs facing the water, opens up the buildings to their surroundings and creates a new, recreational meeting place in central Stockholm.

All three new buildings have a characteristic façade and a wooden structure. The mixed architecture creates the possibility for a resource-efficient and durable housing project, just as it provides opportunities for many different apartment types, all equipped with glazed balconies and aimed at a diverse clientele.

A staffed lobby area on the ground floor with, for example, a walk-in fridge for take-away food and the opportunity to book bicycles and cars from the shared residents’ pool is one of many initiatives for helping with everyday life for residents. In the apartments, sustainable living is supported by, for example, initiatives such as kitchen cupboard solutions that include waste sorting - on wheels, making it easier to dispose of your waste.

**PROJECT III – Vertical Urban Quarter**

**Address**  \\ Nortull, Hagastaden, Stockholm

**Size** \\ 18550 m²

The multi-storey housing complex, designed for Stockholm's new Hagastaden quarter, is intended to be a landmark in the new quarter, as well as an attractive destination for Stockholm's residents. Together with four other planned buildings, the multi-storey complex will be part of Norrtull, an attractive new public area of the city.

The multi-storey complex will welcome the city with, for example, a supermarket, café and restaurant, magazine library and large outdoor spaces. The complex will also give the city new visual experiences, including its timber structures, green rooftop terraces and a playground on one of the storeys, as well as a dynamic, varied façade that reflects the various types of flats behind it.

The deceptively simple building volumes house a great variety of homes, in fact radically changing floor plan layout over the different storeys to accommodate family homes, student housing, urban villas, lofts and penthouses and even care homes for senior citizens. In this way, the complex makes up a vertical urban quarter in itself.

The ground floor has a staffed lobby, with easy access to the housing association's many communal facilities, such as a kindergarten and workshops. The fitness centre and laundry facilities are situated adjacent to each other, so that both can be used at the same time - one of the many initiatives making everyday life easier for residents.