

#### City meets nature in Kuninkaantammi

A cosy and climate intelligent city district for 5,500 Helsinki residents will be built in Kunin-kaantammi. Pedestrian is the priority – city blocks, streets and parks are designed to be experience-rich and active places, Central Park and Vantaanjokilaakso are right next to the area. The high-quality cycling route reaches the Helsinki city centre, Palettilampi beach is close by.

Kuninkaantammi has urban diversity. The gently twisting main streets, lined by rows of trees, are flanked by colourful apartment blocks that rise over pedestrian lanes and urban single-family homes. Parking is mostly underground,

which frees up space for activities and games in yards and little plazas. The village hall near Toriaukio will house a school, daycare centre and resident premises. Shops and other business premises will be built on the ground-floor of the buildings.

## Residents will be the pioneers of ecological housing

Kuninkaantammi promotes ecologically sustainable solutions and experiences of communal living. Some of the blocks will be built with wooden apartment buildings. A village well and urban farming area will be built in the middle of the area. The delaying of rain and stormwaters helps prevent urban flooding and increase the comfort in the area. The rain gardens and green roofs of the city blocks, the planted pools and depressions in the street areas and the water







Maisemamaalauksenkatu rises up the hill.

features in parks invite people to relax and enjoy themselves. Solar energy is used for the energy efficient residential buildings.

In Kuninkaantammi, locally excavated stone from the construction sites is utilised for water features, walls, landscaping and landfilling, as well as for street bases.

## Area's name themes draw inspiration from colour and visual arts

Taidemaalarinkuja, Painter's lane, takes you along Umbrakuja (Umbra lane) to Akvarellinkatu (Watercolour street). Helene Schjerfbeck's Park is filled with mounds of lush vegetation in various colours, little streams and reservoirs. The pond Palettilampi and Ellen Thesleff's Park are the highlight of recreation. The water of this pond, which was previously used for treating drinking water, is led through the Päijänne Tunnel. The beach offers recreation for the area's residents and the visitors of the Central Park. Pit-

käkoski hiking cabin, situated right next door, is well-known for its delicious doughnuts.

Pitkäkoski water treatment plant will continue its operations and the Kuninkaantammentie single-family home area around it will be expanded. Additionally, the Environment Centre's laboratory, printing house and a local lunch restaurant will also continue their operations in the area.

#### By public transport to work and hobbies

The efficient crosstown route 560 of public transport will travel through Kuninkaantammi – in the future as a light rail. A bus line from the Helsinki city centre will also be continued on to Kuninkaantammi. The services and train stations of a large regional centre are only a short, two-kilometre cycling trip away. A new connection to Kuninkaantammi will be built from Hämeenlinnanväylä.



P. 4–5 The carbon footprints of wooden construction and concrete construction are compared in Taidemaalarinkatu.



## 2,600 residents city plan came into effect in 2014 construction underway

#### 2. ETELÄRINNE

750 residents
city plan came into effect in 2013
stormwater park's construction underway
construction starts in 2018

3. KUNINKAANTAMMENKALLIO
900 residents
city plan came into effect in 2016
construction starts in 2018

# 4. LAMMENRANTA 950 residents city plan comes into effect in 2017 construction starts in 2020

5. KUNINKAANTAMMENTIE AREA 400 residents city plan came into effect in 2016 construction starts in 2020





# Modern wooden construction in Honkasuo

Honkasuo urban village will be built in the westernmost area of Helsinki, near Ring Rail Line. This wooden construction area with around 2,000 residents will have a characteristic, warm identity. The construction and use of the area will produce less carbon dioxide to the atmosphere than usual.

Honkasuo offers the chance to live in solid wood buildings with passive house classification. Modern wooden construction is energy-efficient and carbon sinks are built into the structures. The Honkasuo block structure has been designed to create a pleasant and sheltered microclimate for the area. The construction follows the principles of lowenergy construction and solar energy is produced in the plots. The heating form is so-called low-temperature district heating.



### Diverse and distinctive housing

A future Honkasuo resident may choose an apartment, based on their life situation: the area will offer options, from single-family homes to attached urban family homes and wooden apartment buildings. Plots for a daycare centre and a store have been reserved in Honkasuo. The buildings will be colourful and distinctive. Excluding the main streets, the principle of

Urban attached house living in Haapaperhosenpolku in Honkasuo.





In Honkasuo residential district, wooden construction has been combined with high energy-efficiency.

street planning has been to build living streets that are suitable for many purposes.

The theme for the parks is nature's diversity. Outcrops will be kept in the landscape, farming locally will be enabled through urban farming plots and the environment will be designed to attract butterflies. The foundations of the former Honkasuo sheep shed will be kept as a resting place that shares a piece of the local history. A gaming field and playground will also be built in the area. Natural ponds have been built for rain water.

Construction in Honkasuo has been started in the eastern part of the area. The first, passive and energy-efficient wooden apartment buildings, urban family homes and single-family houses will be completed between 2016–2017.

### Less than 30 minutes to the city centre

Honkasuo is only about one kilometre away from the diverse services of Myyrmäki's large regional centre, Malminkartano centre and the train stations of the Ring Rail Line, which take you to Helsinki city centre or the airport in fifteen minutes. In addition to the normal bus connection, the area has the final stop of the efficient crosstown route 560. The line will also continue westward in the future.

Solid wood houses in Honkasuo.



### Climate-clever urban planning

Construction and traffic in the cities produces climate emissions. City planning aim to mitigate climate change by steering the operations in a low-emission direction and by planning an environment where the need for fossil fuels decreases. We must also adapt to climate change.

Reducing our dependency on cars is one of the objectives in planning Helsinki's city structure. Designing a temperate microclimate helps decrease the demand for heating energy. The plan can increase the energy-efficiency of buildings and require producing energy or heating for the building through renewable forms of energy, such as solar panels or geothermal energy. The devices integrated into the buildings will be planned as a part of the architecture.

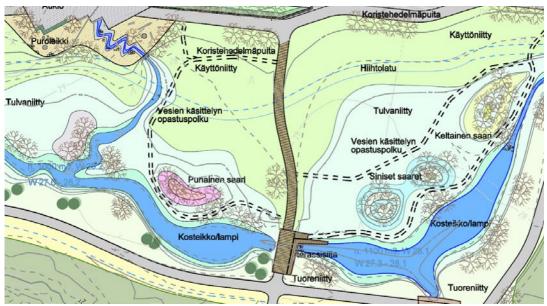
In addition to the building's energy consumption during their use, the climate impacts of energy used for producing the construction materials and the construction itself are significant. The manufacture of concrete causes up to five percent of the atmosphere's carbon dioxide emissions. The emissions during the construc-

tion of wooden houses are significantly lower. Wood is renewable, Finnish building material, and wooden structures also act as carbon reservoirs during the building's entire life cycle.

### Urban planning prepares for extreme climate situations

Despite the global measures in place that aim to stop the climate change, the climate is still changing – also in Helsinki. Extreme weather conditions, such as heavy rains, storms or heatwaves, will increase. Cities need to be resilient; able to adapt, bend and return to full functionality after extreme situations. In a dense urban environment, the challenge is the high number of dark surfaces soaking up beams







Rain garden and wooden facades in Kuninkaantammi.

of sun and hard surfaces impenetrable to water. The possible risks are mainly flooding and storm damage to property, but also the forming of heat islands.

### Stormwaters can be managed naturally

Stormwaters refer to rain and melted water led away from constructed surfaces. City planning enables the natural management of stormwaters, for example, by designing various delaying and absorption structures as a part of urban environment. This helps prevent flooding and the spreading of solid matter into water areas. At their best, the stormwater features enrich the city landscape – the rain gardens of block gardens, street pools and streams and artificial ponds in parks make the environment livelier.

Planning solutions help decrease the formation of stormwaters by requiring the buildings to have green roofs covered by vegetation. They bind and delay rain water while also improving biodiversity in a city built of stone. Planning can also promote the preserving of tree stands or

the planting of new tress on plots or streets. Greenery in the city also offers shades, in addition to stormwater management. During heat waves, it also cools the air by evaporating water

### Green factor method is a city planning tool

Green factor was specifically created for the conditions of Helsinki, and it is the ratio between a plot's qualitatively weighted green area and the total area. Various elements, such as vegetation, seedbeds and stormwater solutions, will be given a factor, which is determined from the perspectives of ecology, functionality, landscaping and maintenance. Green factor enables evaluating and developing methods to build a tense city structure, which is also green and has adapted to climate change. It also helps take into account the social and aesthetic values of a garden environment.

### More information on Kuninkaantammi and Honkasuo

If you wish to follow Kuninkaantammi and Honkasuo developing from zoned areas into completed residential districts go to **http://en.uuttahelsinkia.fi/**. You can also contact Project Manager Suvi Tyynila about the plan: firstname.lastname@hel.fi.

The ongoing construction projects in Finnish are available in the Helsinki Map Service at **kartta.hel.fi**. You can also order an email notification of any plans and traffic plans to be published through **www.hel.fi/suunnitelmavahti**.

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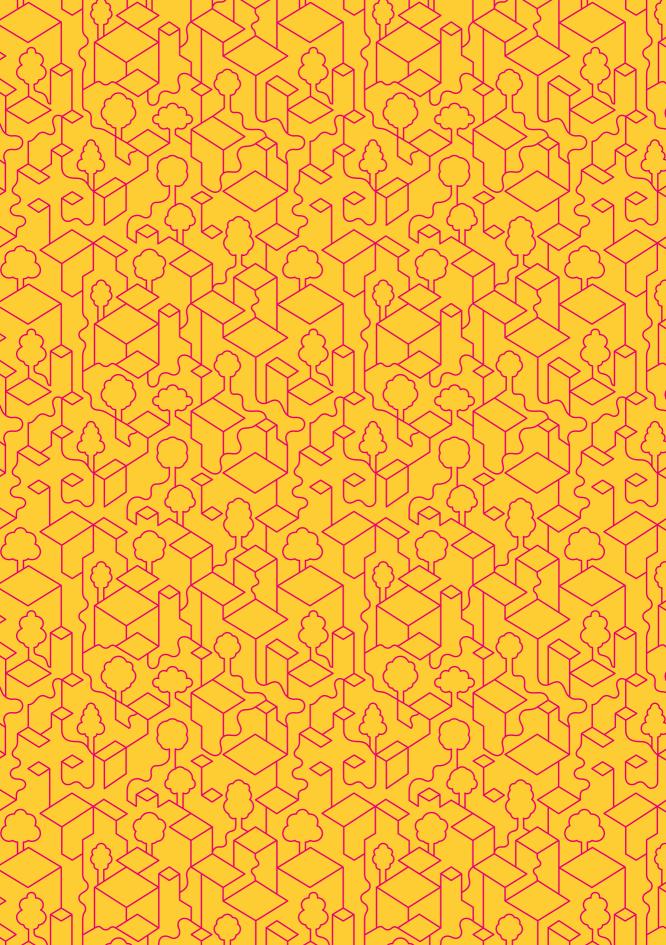
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City of Helsinki City Planning Department

P.O. box 2100 00099 City of Helsinki Telephone +358 9 310 1673 www.hel fi/ksv