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HANS TAVSENS PARK, BLABARD SCHOOL AND KORSGADE Nordic Built Cities Challenge

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In the urban space between the two school yards of the Blågård School, city nature is being co-created. The pupils are collecting seeds, making their own compost, cultivating, experimenting and sharing city nature with the Nørrebro area.

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THE SOUL OF N





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Hans Taysens Park today - one of Copenhagen's few tranquil places to hang out in peace and quiet

1.1



### **VISION** THE SOUL OF NØRREBRO

Nørrebro is the beating heart of the city. With each heartbeat, the pulse of Nørrebro keeps Copenhagen alive as diversity, creativity and commitment are pumped into the city's bloodstream. Nørrebro has a special drive: A creative force that helps renew and rejuvenate - not only Nørrebro, but all of Copenhagen.

The people of Nørrebro speak freely and take matters into their own hands. It is here that ideas germinate and take root, where trends blossom and spread their seed to the rest of the city. Nørrebro is intellectually spacious, and there is room for everyone with their feet solidly planted on the ground who can accommodate the district's diversity.

And Nørrebro is just banging away with a heady pulse with stuff going on in the street. The crush of bikes during the morning rush hour, mobile discos and sudden block parties, young dudes on tuned scooters and black tinted Bimmers, hip cafes, fruit and vegetable sellers, scarves blowing in the wind and colourful garments.

But Nørrebro has a quiet side too, where the district charges its batteries. Places where we find peace and contemplation that feel far removed from the bustle of the city. Where we relax our shoulders, take an extra deep breath and sense the soul of Nørrebro.

Hans Tavsens Park mediates between the peacefulness of Assistens Cemetery and the rush of Rantzausgade, and is one of

the few quiet places in Nørrebro. Here that which has been built up, that which has been cultivated, and lives that were lived long ago create a framework for a kind of urban life that does not exist elsewhere in Nørrebro - let alone in Copenhagen. Here we find room for undisturbed contemplation, private conversations, deep thought and necking. Exotic trees, scents and colors that change with the wind and the weather on the day. Even when the park is full of people, peace can always be found.

It is precisely this soulful peacefulness that we want to protect in our proposal for Hans Tavsens Park and Korsgade. Nørrebro already has plenty of colourful spaces where you can party down, make noise and enjoy urban fun. But Nørrebro has to be for everyone, so there must be different kinds of places that appeal to all.

We will celebrate that - it is good for the soul. Green is good for the soul. Peace is good for the soul. Urban nature is good for the soul. The scents, the sounds, the rain and soil between your fingers are good for the soul. To do something for one other and contribute to the community is good for the soul.

Hans Tavsens Park and Korsgade must capture and strengthen the special soul and unity of the area, and at the same time contribute something good for all of Copenhagen - because that is in the nature of Nørrebro.

The co-creative Nørrebro takes matters into its own hands and would happily share with all of Copenhagen



### MISSION THE CO-CREATIVE NØRREBRO

### It is in the soul of Nørrebro to be co-creative.

Nørrebro has always been a frontrunner in the cultural exchange between Nørrebro and the rest of Copenhagen. We will promote this interaction between the immediate environment and the urban environment in a proposal for Hans Tavsens Park and Korsgade that will become a landmark for Nørrebro as well as a leading example of how co-creation will become the framework for a unique, social and active urban and everyday life.

We will use the beneficial values of urban nature to climate-adapt Nørrebro, and we will use the enhancement provided by urban nature to strengthen various communities in order to give life in the city an entirely new meaning - and to just exist there and have a good time.

Together with centres and departments of the Municipality of Copenhagen, The Blågård School, The Nørrebro Park School, Det Frie Gymnasium (The Free Upper Secondary School), HTV (Hans Tavsen West) and HTØ (Hans Tavsen East), we will start up a process lasting many years that will grow from the bottom up, experiment, pioneer and share city nature in Nørrebro, and make the district continuously more climate robust and nice to live and move around in.

We will work with the people of Nørrebro to design, plant and grow a sensual, varied, blue-green and site-specific Nørrebro city nature that will become the backbone of the area's future identity and its urban living, as well as climate-secure the district and strengthen the special soul of Nørrebro.

In Hans Tavsens Park and Korsqade Street we will:

- Create innovative, local urban space solutions that strengthen the position of Copenhagen as an innovative city with a humanistic approach to the solution of global climate issues.
- · Create a robust framework surrounding constantly changing urban life. Where it is precisely the differences that create a space for all.
- Together with the Municipality of Copenhagen and the local residents and stakeholders, start a process lasting for many years that will expand and grow from the bottom up.
- Stimulate co-creativity, ownership as well as a sense of community, and use the social diversity of the area as a strength.
- Create a robust city nature that is both tangible and measurable: Which strengthens biodiversity, climate-secures the district and strengthens the special soul of Nørrebro.
- Start up the first Copenhagen Fablab for City Nature an urban exploratorium, where city nature of the future will be co-created.
- Use rain water solutions to purify the water in the Copenhagen lakes.



#### THE HYDROLOGICAL CYCLE

Copenhagen city nature needs the usefulness and enhanced value of rain water. That is why we are working with holistic rain water solutions that are part of a larger cycle. From small to large scale, rain water is seen as a resource where the water is collected, purified and reused.

The hydrological cycle optimizes Copenhagen resource consumption, climate-secures the area surrounding Hans Tavsens Park and Korsgade, purifies the water in the lakes and makes Copenhagen even greener.

#### THE BIOLOGICAL CYCLE

Nature's biological cycles are revitalizing, dynamic and constantly evolving. From the most fragile saplings to old hoary trees, new suckers, birdsong, fallen leaves, death and weathering, nature gives us a feeling of being part of something greater. Hans Taysens Park will become the birthplace of a biological diversity and variety that will spread to the rest of Nørrebro and Copenhagen.

The biological cycle will ensure a diverse, adaptable and unique city nature and natural experiences in the center of the capital.

ACTIVITY

#### THE SOCIAL CYCLE

Nørrebro is the most diverse district in Copenhagen. The density, community feeling and tolerance is quite unique for the district. But in busy everyday life, new communities often have a hard time. The social cycle should increase everyday happiness in Nørrebro by promoting large and small communities across social resources, generations, sex and race.

The purpose of the social cycle is to strengthen commitment to, as well as the co-creation of the city's (and the world's) well-being. The social cycle is anchored in the district's institutions, including Copenhagen's first Fablab for Clty Nature.





### TACTIC THE NØRREBRO CYCLE

The city nature of Hans Tavsens Park and Korsgade is a product of the synergy between the hydrological cycle, the biological cycle and the social cycle in a cultivated microcosm, enriched by the very special soul of Nørrebro.

Copenhagen's 300 up-and-coming climate projects use city nature to adapt to future climatic challenges. But in order to avoid that climate adaptation blurs variation in the city, city nature must stem from the specific character of the site.

In Hans Tavsens Park and Korsgade this means that on the basis of Nørrebro's unique qualities - urban as well as exotic and blooming nature, the social diversity and its variegated culture we create a robust, climate-protecting city nature that can adapt to climate changes, protect the local area against floods and create significant added value.

The foundation of our proposal are cycle designs. Because precisely the concept of cycles, as we know it from the wild, has the strength to adapt to external influences and create properly functioning ecosystems that we as citizens can actively contribute to. As a wise man said: We are the first generation to feel the effect of climate change, and we are the last that will be able to do something about the problem.

Changes to our everyday habits can have a positive effect on the cycles and thereby the environment - both locally and globally. And here, the people of Nørrebro will be frontrunners.

By combining cycle thinking with the special soul of Nørrebro, we will create a cycle system consisting of three complementary cycles with an internal synergy that will result in a holistic, unique urban nature - a cultivated microcosm - which creates tangible and measurable value - both for the local area and for all of Copenhagen.

- The hydrological cycle
- The biological cycle
- The social cycle

## THE MAIN TOOLS

Our proposal for the design of Hans Tavsens Park and Korsqade is based on five main tools that help increase the synergy between water, biology and the people of Nørrebro. Together the tools strengthen the unique quality of the area by creating an open framework that conveys the juxtaposition of that which has been constructed and that which has been cultivated, so that good everyday life is quaranteed for all. Here the soul of Nørrebro will be allowed to grow, allowing space for both a community spirit and peace of mind.

The main tools will have the following positive effects:

- Hans Tavsens Park, Korsgade and the area around the Blågård School and Hellig Kors Church will become a completely new cohesive, attractive, sensuous and naturally rich area that invites you to stay, take part in recreational activities, urban social life and new nature experiences.
- The area will be climate-secured with long-lasting solutions.
- The area will be experienced as architecturally cohesive, but with a myriad of different spaces, green niches, urban life activities and popup initiatives - providing room for different user groups and activities.

- urban architecture is created.
- pack will be strengthened.



#### **CLIMATE ADAPTATION WITH CITY NATURE**

The entire project area will be climate-adapted using city nature as its base. Nørrebro has great need of city nature in order to climate-adapt the district, but it is equally important that city nature makes it nicer for all people to live and move around in the neighbourhood. City nature will handle and retain rain water but will also increase the quality of water while creating a better micro-climate and contribute to food growing, noise reduction and lower CO2 emissions, improving air quality - and the quality of life for the residents!



#### SCHOOLS AS DRIVERS AND COPENHAGEN'S FIRST FABLAB FOR URBAN NATURE

There is a huge potential for using the area's institutions and schools as drivers for the entire urban development of the district. From an early age, kids from Nørrebro must learn to be active co-creators of the Nørrebro cycle and its city nature. The Blågård School, Nørrebro Park School, HTØ and HTV, Et Frie Gymnasium, Korsgadehallen and the manned playgrounds can all play an active role in the development. To make this a reality, we will introduce a new institutional focal point: Copenhagen's first FABLAB for City Nature. FABLAB is an urban exploratorium, which will be placed be-10 tween HTØ and the Blågård School. Here, city nature of the future will be co-created!



#### **DIFFERENCES FOR ALL**

The residents of Nørrebro, its associations and visitors have very different expectations and dreams about good urban life. That is precisely why we are proposing to work with "open form" - i.e. unprogrammed spaces that can be appropriated either for spontaneous and temporary events, or more planned, permanent functions. It may e.g. be for Nørrebro's many associations, institutions or schools, who need a place to flourish. In this way, Hans Tavsens Park and Korsqade will take shape according to the wishes of the users and their commitment, and will grow and develop organically together with the citizens. On the sides with precipitation areas, possible scenarios are exemplified.



#### LINKS

Both the physical and visual links between Hans Tavsens Park, Korsqade and their context will be improved so that the area is made more accessible, both physically and mentally. It is important that the project is integrated as closely as possible with the environment so that the site will continue to be perceived as open and including, all the way from Jagtvej to Peblinge Lake. But cross-links are also important. The side streets will be connected to the area with the creation of new spaces, and the special energy contained in the urban life of Rantzausgade will be connected to the project area.

• The degree of what is green and what is blue will be maximized in the urban spaces so that sensuous and an aesthetic appreciation of nature is markedly increased throughout the project area.

The varied architectural characteristics of the project area are complemented by the cultivated environment, so that a complete

• Nørrebro's 'edge' as innovative, full of initiative and a leader of the

Because the development of the district will be based on a networking process between the municipality, District Renewal, institutions, schools and residents, local affiliation and ownership will be ensured of climate adaptation solutions as well as urban space solutions.

#### THE HELLIG KORS CHURCH IS THE ARCHITECTURAL HINGE

In the competition program it is assumed that Hans Tavsens Park, Hellig Kors Church and Korsgade Street are viewed as three sub-areas. We choose instead to view the area as two unique urban spaces that are assembled by an architectural "hinge": The beautiful Hellig Kors Church. In this way, the church marks the transition between Hans Tavsens Park and Korsgade Street, where in the future the nave will be situated in the park, surrounded by trees like a church in a forest, while the church space in front of the church is orientated towards the more urban, axial flow moving towards Peblinge Lake. The relation of Korsgade Street to the lakes will also be made even clearer by creating a circular water flow that purifies both rain water and lake water and which presents itself as a spring that has its source in front of the church - literally.

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## **PRINCIPLES FOR CLIMATE ADAPTATION**

The climate adaptation of Hans Tavsens Park and Korsqade is inextricably linked with city nature. The hydrological, biological and social cycles are included in a strong symbiosis, which not only climate-secures the park and inner Nørrebro, but which also has a positive effect on all of Copenhagen. Water will become a visible part of everyday life in inner Nørrebro, and will significantly increase the perceived value of the district.

In Denmark and at a global level, weather is becoming increasingly severe. Extreme cloudbursts of a short duration inundate our cities and flood streets and byways. What we describe as millennium events today, will very likely be centennial events in the next century!

Our proposal for Hans Tavsens Park and Korsgade lives off the rain water. Water will become a resource in the hydraulic cycle, where city nature, urban life and enhanced experiences thrive on the increased volume of rain water. In the project we are working with three basic principles for rain water management:

#### **RAIN WATER AS A RESOURCE**

Tanks will be established in the entire area which collect rain water from roof surfaces.

From there the rain water may be used by residents for irrigation, by schools for learning and by the municipality for cleaning or irrigation. The FABLAB for City nature can use rain water for the irrigation of compost, seeds and seedlings. Rain water can also be used to water city nature biotopes, not only in urban spaces and in Hans Tavsens Park, but also on private balconies and in the backyards of buildings.

#### **CLOUDBURST SECURING THAT RETAINS WATER**

Hans Tavsens Park will be fitted with a delayed volume of no less than 18,000 m3 at ground level, so that cloudburst 72 water from higher ground upstream can be purified and delayed before discharge. From Hans Tavsens Park, a discharge pipe will be established that will lead rain water separately to the lakes where it will be purified before discharge. In the case of especially powerful events such as cloudbursts, rain water can be directed at ground level from Hans Tavsens Park via Hans Tavsens Street and Korsgade to the Peblinge Lake. Hans Tavsens Street and

Korsgade will be re-profiled to a V-profile including a rain water gutter so that road and gutter can deflect rain water from both these and the adjacent roads to the lakes.

#### **CLEANER LAKES FOR COPENHAGEN**

Between the front area of the Hellig Kors Church and Peblinge Lake we propose an elongated, circular purification system which on the one hand purifies the rain - but also purifies the lake! The proposed purification system is an innovative way to use already known climate solutions, where natural biotopes together with advanced filtering and pumping techniques purify both everyday rain water, cloudburst rain water and lake water.

Rain water is directed to the Peblinge Lake via the open water gutter on Korsgade where the water is purified before it is routed to the lakes. When it is not raining, the water gutter will remain full and lush. That is because lake water is pumped via pipes from the Peblinge Lake to the Hellig Kors Church, and from there, the water will become a "spring" and flow back to the lakes via the gutter in Korsgade. The circulation removes large quantities of nutrients and phosphorus from the lake water. This improves water quality, increases water exchange and leaves the lake - and Copenhagen - cleaner.











### EVERYDAY EVENT

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The lowest lying areas that are located closest to the discharge pipe in Hans Tavsens Park will fill up first. Just as the water tanks for residents and the municipality will be partially filled. The circular system that purifies the lake water in Korsgade will then be filled with roof water from Korsgade, water from side walks and second flush. All water is purified before discharge to lakes or infiltration into the water table.

#### **TEN-YEAR EVENT**

In case of a ten-year event a greater part of Hans Tavsens Park will fill up, but the islands and the arena will remain dry for sports activities, staying there and cultural events. The park will empty itself again after a maximum of 24 hours, using infiltration and throttle valve discharge to the discharge pipe. The cleansing biotopes in the park and Korsgade delay and purify all the rain water prior to infiltration into the water table or discharge to Peblinge Lake. From the water tanks there will be an overflow to Hans Tavsens Park or the cleansing biotopes in Korsgade.

### **CENTENNIAL EVENT**

The arena will then also be filled with rain water and in the park's eastern section there is an overflow to Hans Tavsens Street which has been constructed as a cloudburst street. Rain water will be directed across the Church square towards Korsgade and water will be directed towards the easternmost biotope called Raikkonen (the lakeside balcony). Only in case of absolutely extreme events will cloudburst rain not be purified prior to discharge.

- A\_ Water tank for residents
- B\_ Water tank for the Municipality

D

- $C \ Discharge pipe$
- D\_Cleansing biotope
- E\_18,000 m3 delay reservoir



**HANS TAVSENS PARK** 

THE SOUL OF NØRREBRO

Hans Tavsens Park has since its conversion from a plague cemetery to Copenhagen's first user park in 1907-08 reflected the immediate trends of the times. Time and again the park has managed to respond to the needs of the people of Copenhagen for recreation and an active urban life. A chameleon and yet a classic.

We will create a park with diverse opportunities for urban life, biodiversity and peace of mind, which at the same time can accommodate 18,000 m3 of rain water in the case of cloudburst events. For that is what we require now and in the future.

Our proposal is a park that at one and the same time is completely new and yet fully in the spirit of Hans Tavsen - a modern classic park for the future.

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Hans Tavsens Park stretches from Jagtvej road to Kapelvej and offers a large variety of diverse, green urban spaces for everyone. From open rolling vistas to lush underbrush growing wild. The recognizable half-circle in front of the Hellig Kors Church is the procedural impetus for the park's framework design. The new park will create different experiences for everyone, and with its open shape, it will ensure diverse urban life for many years to come.

NØRREBRO PARK SKOLE

Traditional Copenhagen architecture - the building block, the public school and the church - complement the cultivated environment with its characteristic red brick. The Assistens Cemetery's 'woodline' has broken out of its containment and is growing into Hans Tavsens Park. Towards Hans Tavsens Street the park will have angular overlaps with minor urban spaces between the blocks of buildings.



DET FRI GYMNASIUM



### KORSGADE

HE SOUL OF NØRREBRO

From the front area of Hellig Kors Church to the "Korsgade Lakeside Balcony", there will be a bluegreen street progression which at one and the same time will be fashionable as urban architecture and rebellious in a Nørrebro manner. Green side walk gardens will emerge along the street's sunny side, breaking up street monotony, and bearing witness to new communities, local ownership and good home 16

BLÅGÅRD SKOLE

BLÁGÁRD SKOLI

living. Pop-up gardens with seeds from FABLAB will be complemented by sequenced rows of trees that provide a lush counterpoint to the various house fronts. In between flows the Korsgade Stream that springs from the area in front of the Hellig Kors Church. The stream is a circular purification system that purifies both rain water and lake water.

It meanders between stepping stones and purifying city nature biotopes and captures the sunlight before cleaner water is discharged into Peblinge Lake. Korsgade is broken up further by urban spaces with cobblestones that help reduce speed.

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## **NØRREBRO'S CITY NATURE**

What is city nature in Nørrebro? City nature is the product of the synergy between the hydrological cycle, the biological cycle and the social cycle. City nature is everchanging and ever-reactionary. Always in development, because it is co-created by people and the weather. City nature in inner Nørrebro is experimental, pioneering and shareable - with the rest of Nørrebro - and all of Copenhagen. A cultivated microcosm.

City nature in Inner Nørrebro is alive, dynamic and always changing. Co-created by schools, residents, the staff at the manned playgrounds and the working employees of the park.

City nature is the link between water, nature and people, and opens up for a sustainable and democratic future for inner Nørrebro. It is in the soul of Nørrebro that the inhabitants and users will become an active part of the green transformation of the area around Hans Tavsens Park and Korsgade. It promotes urban life, community, tolerance, a sense of belonging and proximity. It is our conviction that if city nature is to support the distinctive character and urban life of Nørrebro, it must be viewed as a series of actions that address how urban nature is developed, cultivated and shaped.

### CITY NATURE IS MEASURABLE AND TANGIBLE - AND SOMETHING WE CULTIVATE OURSELVES

Inner Nørrebro is a colourful and diverse neighbourhood with great variety and many different groupings. But how do we reach out to even the most remote nooks and crannies of this intricate and varied neighbourhood? The change will take the two public schools and Det Frie Gymnasium as its starting point, as there is a wide range of contact because the schools representing a broad cross section of the population, and to work in this way will strengthen the bridge to all of Nørrebro. Our vision is that the schools will plant small seeds that over time will reach out to local society. The schools will kick-start the project and set a movement in motion from Day 1, where the pupils will be involved in the development of the local area through play and learning.

### FABLAB FOR CITY NATURE

The creation of city nature is anchored in Copenhagen's first FABLAB for City nature that will be placed as a pavilion building between the Blågård School and HTØ in Hans Tavsens Park. FABLAB for City nature will be the focal point for a wide range of 'green' and social activities. The building will be programmed in such a way that more and more of the inhabitants of the district will have a relationship with it. Through cooperation between private and public forces, a distinct kind of life can be created in the area, based on sustainability ideals and visions for cycles. These ideals and visions will materialise in a number of physical and tangible activities and functions which arise from FABLAB for City nature. It will become an arena for coexistence and dialogue, which will create new social interaction and shared understanding.

The site will be an open exploratorium and learning process, where different stakeholders through co-creation can develop new sustainable means to take action. At the same time, the outside areas surrounding Blågårds School will be reinforced as a social gathering point through the activation of pupils, institutions and creative crafts. Jointly, they must become part of creating the physical framework for the new social gathering point in inner Nørrebro.

#### NØRREBRO'S NATURAL VALUE

Natural value in Nørrebro therefore consists of the immediacy and spontaneity that occur when urban nature is co-created by the people of Copenhagen in Hans Tavsens Park - with the administration of the Municipality of Copenhagen acting as facilitator. When you go for a walk in Inner Nørrebro in two years, you will be surprised by the small saplings, beautiful old exotic plants, dead trees and rotting compost. All kinds of experiments and micro initiatives which residents, school children, the municipality and entrepreneurs have launched.

It is our recommendation that the development of Nørrebro's city nature is complemented by a 5- and 10-year operational plan which will constitute the right framework for the development of the quality and quantity of the city nature. In addition, we propose systematic knowledge gathering of the experiences which are gained, so that this citizen-driven and authority-facilitated method can be used in other places in Copenhagen, Denmark and the world.

The diagrams illustrate the development of the city nature from Day 1









reacing out in





Hans Tavsens Park - The night-time summer rain disappears within a few hours and the rolling grass plains again fill up with people.

(Markets)

### **EVERYDAY RAIN**

It often rains in Copenhagen. Sometimes it is grey and wet for several consecutive days. At other times there are short, but heavy showers. Sometimes it drizzles. Everyday rain is a completely natural part of the daily life in Copenhagen and, therefore, should be included in the hydrological cycle by being a resource that promotes urban nature and urban life. Rainwater management and cloudburst harvesting is not in itself a plan - the plan is to improve the daily lives of residents and users. Both measurably and noticeably.

#### **EVERYDAY RAIN AS A RESOURCE**

Rainwater, collected from roofs in collection tanks, must as far as possible be used as a resource in the area. This water can be used by residents, schools and institutions, as well as by the municipality's operating organisation. Rainwater from the roof areas directly facing Hans Taysens Park will be led to the new rainbeds in the park, where most of the water will filter down and evaporate. The rainwater from the roof areas along Korsgade that are not close to a collection tank, will as far as possible be led directly to the longitudinal rainwater element in Korsgade.

From the heavy trafficked areas on Hans Tavsens Gade and Korsgade, the rainwater will be diverted via downstream wells using down scaling drains to HOFOR's existing drainage system. This ensures that most of the contaminated rainwater and the first flush are diverted to Lynetten, the Danish waste water treatment plant.

**Roof Rain** Water 9,0m 8,0m 7,0m 7,0m × 8.0m 7,5m 7,0m 8,0m **Roof Rain Water** Rain Basin **Rain Basin Rain Basin Rain Basin** 

Principle longitudinal section through the project area (not to scale)

#### EVERYDAY RAIN IN THE AREA THAT IS UPSTREAM FROM HANS **TAVSENS PARK**

Cleansing biotopes will be established in the western part of the park, at Nørrebro Park School. The cleansing biotopes are integrated into the park naturally. These cleansing biotopes must be able to receive the rain from the downstream portion of the cloudburst branches coming from Nørrebro Park, and possibly from parts of the northern cloudburst branches if it runs through Assistens Cemetery. In particular, it is proposed that the intersection on Jagtvej is designed with a closed drain for everyday rain and a lowered surface for cloudbursts. This can also improve the traffic conditions at the intersection.

#### EVERYDAY RAIN IN THE AREA SURROUNDING HANS TAVSENS PARK

A total of approximately 10 rainwater tanks are to be established, each measuring 20-40 m3 in size. It is ensured that the tapping areas are secured properly so that it cannot be used for drinking water. If the rainwater is wanted for recreational use locally, it must be ensured that the water is treated or replaced, cf regulations by the medical officer of health, etc. The rainwater tanks will overflow to rainbeds in Hans Tavsens Park, and only when these are filled, will superficial flow occur to designated areas in the park.

#### EVERYDAY RAIN AT HELLIGKORS CHURCH AND BLÅGÅRDS SCHOOL

In this area, the rainwater will also first be collected in rainwater tanks, but to some extent it will also be led directly to the rainwater element in Korsgade. Individual roof sheets will be led to the proposed discharge pipe from delay elements at Hans Tavsens Park.

#### **EVERYDAY RAIN IN KORSGADE**

A rainwater element will be established through Korsgade which will divert everyday rain from the northern roof areas and sidewalks. The drains are covered when passing roads, and to reduce the ongoing cleaning and operation, coarse grates are incorporated in the covered portions so that paper, pizza boxes, etc. can easily be disposed of by opening the hinged flaps of the cover. The drain also passes cleansing biotopes along the way and a final rinse before it is pumped into the lakes. In all there is a 150 m3 delay volume which allows for the maintaining of a low discharge rate of 1 L/s per hectare to the lake. The roof water from the southern roof areas are led to the collection tanks with the possibility of overflowing into the longitudinal rainwater element. Individual roof sheets will be led to the proposed discharge pipe from delay elements at Hans Tavsens Park.

### **TRAFFICKED AREAS - FIRST AND SECOND FLUSH**

The trafficked areas of Hans Tavsens Gade and Korsgade are drained to the existing drainage system, but scaled back so that only the first flush, containing the most contaminated water, is diverted here. The proposed scaling down is performed with regulated discharge from the rainwater canals and wells, which can regulate from 1-10 L/s per hectare.

When the rainfall exceeds the limit of the first flush, it overflows to the discharge pipe for rainwater from delay elements in Hans Tavsens Park.





### **CLOUDBURST RAIN**

Hans Tavsens Park and Korsqade ensures safety during cloudbursts and no wet basements. But in addition, it also makes cloudbursts a glorious event. When the sky opens above Copenhagen, Hans Tavsens Park's rolling terrain absorbs 18000 m3 of water. New spaces emerge and others are hidden.

#### HANS TAVSENS PARK

In Hans Tavsens Park, a delay volume of 18000 m3 on the terrain is established by lowering the surface of the park, in such a way that trees worth conserving are not affected. In the western portion of the park, two areas with cleansing biotopes are established for the everyday rain, and an area that is primarily designed to receive rain from the upstream cloudburst plains, so that this rain can be rinsed and delayed in smaller areas. There will only be water in the larger areas of the park in instances of rain with real cloudburst character. The drainage to the park from the Nørrebro Park's cloudburst branch will occur through a proposed lowering and reprofiling of Jagtvej, outside Nørrebro Park School. A lowering that will, at the same time, be able to improve the opportunities for a safer crossing at Jagtvej, whereby the existing pedestrian tunnel can also be dismantled. In all, 1000 L/s can be transported to Hans Tavsens Park through this lowering on Jagtvej and Hans Egedes Gade to Hans Tavsens Park. This is beyond the scope of the project, but can possibly be incorporated in connection with the entry roads to the metro station on Nuuks Plads.

The drainage to the park from the northern cloudburst branch, Jagtvej/Assistens, is intended to occur in the areas around the current mini golf course. The inlet area is designed flexibly to be able to receive water through the smaller Brandvej, north of Nørrebro Park Skole, or through a lowering of Assistens Cemetery. In both cases, approximately 3800 L/s can be received; the filling graph from hydraulic calculations during a 100 year rainfall can be seen in Figure 1 (see page 12). The park's swale is emptied of water after the rains to a new, proposed discharge pipe for rainwater with a small dimension, ø400 mm, which leads the water along Korsgade to the lakes, where it can be treated before discharge. This ensures that even after a cloudburst that completely fills the park, the park will be emptied of water and ready for use 24 hours after the incident. Through the establishment of the bottom drain and controlled drainage, the park can quickly and effectively be emptied of water. Thus, the park will generally be able to be used recreationally at least to the same extent as it is currently used today, when minor flooding occurs during heavy rains. The hydraulic calculation shows that during a 10 year rainfall, approximately 550 m3 ends up in the park, and that it almost exclusively this rain that falls in the park itself.

7,5m x

20505 BUDG 5

Rain Basin

#### SUPERFICIAL OVERFLOW DURING EXTREME CASES

In extreme cases, rarer than a 1000 year event in today's climate, where Hans Tavsens Park is filled with water, a controlled superficial overflow will occur along Hans Tavsens Gade and Korsgade.

To ensure the drainage of the cloudburst rain, that may fall on Korsgade and adjacent roads downstream from the park road profile in Hans Tavsens Gade (across from the church's front courtyard) and Korsgade, will be regulated to a V-profile, and additionally a gutter-formed rainwater element will be established in Korsgade. Figure 2 shows cross-section of the roads, where Figure 3, Figure 4 and Figure 5 (see page 24) show the filling of the road during everyday rain, 10 year rainfall and 100 year rainfall, respectively. This road profile ensures a robust diversion of the cloudburst water to the lakes. By regulating Hans Tavsens Gade, it ensures that the water is led via the church's front courtyard instead of via Kapelvej. In the current situation, this is intersection one of the critical points, as the terrain leans towards the intersection, whereby a slight rise causes the cloudburst water to collect here with potential to cause leakages.

#### KORSGADE LAKESIDE BALCONY

Rain Basin

In Korsgade's eastern side is the current lowest point of the street, which similarly represents a critical point in the existing situation, whereby the water accumulates during cloudbursts. We propose to solve this by lowering the terrain in the eastern part of Korsgade, so that the cloudburst water is diverted through a green swale to a new, low-lying peninsula in the lake - Korsgade's Lakeside balcony. The peninsula is designed as a miniature version of the original meadows and functions as a buffer, where the new walking path will form a barrier between the lake and the low peninsula. The rainwater's intersection at the existing Peblinge Dossering will occur in a closed profile, under the bicycle path and under the wooden deck of the current gravel pathway. The rainwater will flow to this peninsula, where it will be rinsed and pumped to the lake or recycled in the rainwater elements on Korsgade, during normal rainfall. Thus, the peninsula's rainbed will appear dryer in dry weather and wet during normal to heavy rainfall. During cloudburst situations, the water will be stored on this peninsula and a hidden release valve will be established under the new walking path that ensures an effective overflow to the lake when the water level is sufficiently low. A propeller pump is established that can pump large volumes of water to the lake in cases where the water level is too high for gravitational over-

flow7,0m x Roof Rain The same function can be achieved by incorporating an underground construction in the current Peblinge Dossering. The establishment of a smaller peninsula will at once provide a more robust cloudburst safety system and

provide an opportunity to establish a special area on a portion of the lake area, and create extra recreational conditions and good urban nature. The proposal does not depend on that approval be given to establish a new peninsula in the lake.

### PEBLINGE'S PUMP STATION

The proposed rainwater pump station at the lake is to be established with the following equipment:

- 24 hours.

Surface Channel

Rain Basin

Propeller pump station with a capacity of 1600 L/s that can divert cloudburst water to the lake through the outlet of the lake guards against shore erosion. Release valve ensures the possibility for gravitational overflow to the lake in such cases where the water level is low enough. The pump station will be established with the possibility for water intake from the lake so that the rainwater pumps and the discharge pumps can be used to recycle and rinse lake water.

100 % reserve capacity will be established for the three pump functions. This may possibly be omitted for the everyday rain pump, since there is a possibility for overflow to the existing mutual system. In terms of the energy consumption, solar cells will be established that will be able to drive the recycling of the water from the lake to treatment. These are positioned so that they do not disfigure the lake's shoreline. In cases where the recycling and treatment of the lake water is not desired. recycling of water in the rainwater elements will be possible based on the buffer for the pump for everyday rain. The energy consumption by pumping the rainwater will still be significantly less than the current drainage of rainwater through Kløvermarksvej Pump station and Cloudburst Lynetten, the Danish waste water treatment plant. Overall, the solution is significantly more sustainable and environmentally friendly than the current situation.  $6.5 \text{ m} \times 7.0 \text{ m} \times$ 5.0m × 6,5m × 5.8m ×

filtered over surface

Rainwater pump for cleaned everyday rain from the bottom drain under the rainbed on the new peninsula. Capacity of 5-10 L/s corresponding to 1 L/s per hectare of catchment area, depending on the connected catchment areas from the adjoining roads and areas "upstream" from the competing area. The pumps can either pump to the lake or to recycling in the rainwater and cleansing elements in Korsgade. Overflow to the existing mutual system is possible.

Discharge pumps from the discharge line that can empty the drainage from the delay volume in Hans Tavsens Park after treatment in the rainbed on the new peninsula. Frequency controlled pumps of up to 200 L/s ensures that the volume in Hans Tavsen Park can be emptied within

Pump Room

**Filtering Biotopes** 

Filter23 Lake Water Pipe

## TREATMENT OF LAKE AND RAINWATER

The water quality has a large influence on Copenhagen's natural value and, therefore, the treatment of the rainwater is hugely important. All everyday rain, and a large amount of all cloudburst rain, is treated by the area's urban nature biotopes. In addition, the project also enables the water in Peblinge Lake to be treated, so the water quality and, therefore, the environment of Copenhagen's lakes is significantly increased.

Different treatment measures will be established in the solution proposal. All treatment measures are based on a combination of urban nature and filter mulch.

#### **CLEANSING BIOTOPES AT NØRREBRO PARK SCHOOL**

The flow of everyday rain and cloudburst rain from the upstream cloudburst branches to Hans Tavsens Park, will pass cleansing biotopes that treat the water for phosphorus, suspended solids and metals through the filter mulch containing underlying lime draining filters. The part that is not filtered or evaporated will be emptied through the newly proposed discharge line. Cleansing biotopes and the local topography in connection with Nørrebro Park School will function partly as an outdoor classroom, nature awareness learning, boisterous games for primary classes, and quiet niches for school leavers.

#### KORSGADE'S TREATING URBAN AREAS

In Korsgade, en route rainbeds with filter mulch will be established that rinse water which is diverted to the rainwater elements in Korsgade as well as water that recirculates in the drain. Askovgårdens Plads and the Røde Plads will in the future combine local urban life with cleansing teal urban nature.

#### KORSGADE'S 'LAKESIDE BALCONY'

In the downstream part of Korsgade, several terraced rainbeds will be established with underlying lime filters, from which the water is diverted to the final treatment on Korsgade's Lakeside Balcony where the water is again filtered through planted kalk/sand filters that remove suspended particles, organic matter, phosphorus and metals. The lake balcony is the final urban area on the axis, which runs from the Hellig Kors Church on Peblinge Lake. An urban areas for views, conversations and kisses - and a welcome to Korsgade. The water is not rinsed from the collection tanks at the outlet, since it is only used for watering and cleaning. If the water is wanted to be used for games, or the like, standard filtering and sanitising can be established.

In connection with the proposal water quality calculations have been made regarding the consequences of the proposal and it is on this basis that it is assessed that the phosphorus concentration in the lake can be decreased and that 50-100 Kg of phosphorus can be removed from the lakes annually, if the lake water is recirculated at 10-30 L/s.



The diagram illustrates where the rainwater and dam water is treated









where the First Flush can be collected and be diverted to the existing wastewater pipe at 1 L/s/ha.

## TRAFFIC & LIGHTING

Our project is based on the traffic plan for Inner Nørrebro. We have endeavoured to secure top road safety for everyone, maintaining as many parking spaces as possible, while particularly focusing on an easy and secure cycling culture in Inner Nørrebro Street lighting supports road safety but also creates space, atmosphere and security.

#### **KORSGADE STREET**

The traffic plan for Inner Nørrebro ensures that the traffic in the area itself will have local character. This means that the volume of traffic in Korsgade will be of a low level in the future, also compared with other streets in Copenhagen. At the same time, the vehicle traffic will be one way which opens the possibility of reducing the width of the lanes. The project includes a uniformed road profile throughout Korsgade, which is interrupted en route by cobbled roads. The uniform profile ensures that the road is easily read by road users, and the disruptions occur where the road users must pay particular attention, for example at intersections. This is evident for instance, at Blågårdsgade where many cyclists cross Korsgade, or at Askovgårdens Plads.

The profile will receive a narrow driving lane of 3.75 m (with parallel parking), which is specified in the traffic plan. The adjustments are intended to change Korsgade from being a trafficked area to being an urban area where driving a car is possible, but not dominant. Therefore, the traffic flow will to a far greater degree occur taking into account the vulnerable road users. Cyclists are allowed in both directions.

#### **VULNERABLE ROAD USERS FIRST**

Part of the project seeks to create a good, coherent bicycle and pedestrian connection between the lakes and Jagtvej, without it being a route for commuters, which would call for high speeds for cyclists.

If one wishes to drive fast then Nørrebrogade is a better alternative. Korsgade is chosen as an experience and with acceptance that both Hans Tavsens Park and Korsgade are places where one considers one another. This means, among others, that the passageway for the school yard and the different open areas are designed with this in mind, so the bicycle traffic does not dominate and constitute a nuisance for the other road users. This pleasurable experience is emphasised by the narrow lanes bordered by channels on the one side and trees on the other. Together with the choice of materials and the establishment of special open squares, intersection arrangements, etc. along the way, it will help to maintain reduced speed for both cars and bicycles. Therefore, Korsgade will be the attractive choice.

#### PARKING

There are currently 51 parking spaces on Korsgade that are expected to be retained in the project. The parking is maintained throughout the southern part of the road, which means that 11 spaces on the northern side are removed due to the establishment of the channel. These spaces are deemed able to be maintained in the area through optimising the arrangements on Korsgade and side roads, especially around street corners.

In connection with the optimising of parking, Korsgade will receive a tighter and clearer profile that frames the narrow lanes. Thus, there will be strict limitations on where one can drive, and what can be parked. This means that random stopping and idling cannot continue as it currently does, as it will block the remaining traffic.

Askovgårdens Plads is one of the places where the narrow road profile will be interrupted by a larger square formation. Here, in particular, it is desired that the bicycle traffic in Korsgade can pass safely and securely across the square, while the pedestrians are not disrupted and the bus traffic can be executed in a reasonable manner.





LIGHTING Lights are not just lights. Lights are an account of space. Light is dynamic. Light is always changing. When lighting is at its best, it tells stories and creates an atmosphere. In Hans Tavsens Park and on Korsgade we work with a lighting that changes character with the weather and the seasons, that creates variability in the area and makes it an adventurous experience to go through, different during the evening than during the day.

dential area, the lighting is geneighbours. The lighting foc areas characterful trees, wat surrounding residents windo dazzling sharp street lamps. Natural light moves. Therefo alternating gobo projector, w moonlight, while other biotop ates an adventurous and saf Lighting of roads and bicycle create secure, visible and saf Everything is, of course, LEI efficient and sustainable as p



Since the area surrounding Hans Tavsens Park and Korsgade is a residential area, the lighting is gentle in order to avoid inconvenience to the neighbours. The lighting focuses on illuminating the park's and urban areas characterful trees, water and urban nature, and at night, from the surrounding residents windows, one will see gently lit trees rather than dazzling sharp street lamps.

Natural light moves. Therefore, several of the biotopes are lit by a weak alternating gobo projector, which gives the sense of slight, changing moonlight, while other biotopes are lit with colourful lights, which creates an adventurous and safe scene of the urban nature.

Lighting of roads and bicycle paths follow the prescribed standards and create secure, visible and safe focus on the pathways within the park.

Everything is, of course, LED in order to make the lighting as energy efficient and sustainable as possible.







Principle perspective of urban natures between the blocks south of the park

#### HANS TAVSENS PARK - PEACE OF MIND AFTER THE CLOUDBURST

Between the blocks south of the park, a hyper local life unfolds itself shaped to a large extent by the residents living in cooperatives. Roof water from the characteristic blocks is collected in underground reservoirs between the buildings, so that the residents and users can reuse the rainwater for watering of the interim urban gardens and the green courtyards, washing of bicycles. Here, the residents are very close to rainwater as an everyday resource. There are continuous guidelines for placement of pavement and bicycle paths.



### NØRREBRO PARK SCHOOL AND HTV CLEAN WATER, FRESH CUTTINGS AND YOUNG COMMUNITIES

All children must have a place to learn and play - and to just be. Between Nørrebro Park School's school courtyard and Hans Tavsens Park a green environment is created that cleans the rainwater and creates a lush transition between the school courtyard, HTV and park. The areas smaller scale allows for boisterous play, quiet conversations and crossborder physics experiments in the outdoor classrooms. Hans Tavsens Arena is a new multi-course and stage that remains dry even when it is pouring with rain.

The transition between school courtyard, HTV and Hans Tavsens Park is currently not smooth. The transition between the lush park and the paved school courtyard is very abrupt. In the eastern part of Hans Tavsens Park we

have focused on bringing the park's scale down to the children's height and making the area significantly more fertile, so that it encourages playing, relaxing and learning about the natural processes in the city.

Today, there are approximately 200 school leavers at Nørrebro Park School and Blågård School that are homeless during recess and after school. They roam around without any specific sense of belonging. In our design, special focus has been placed on giving space so that the older students can hang out and be brought together without the company of adults. This is an important part of youth.

A large circular arena is established that will be the park's new arena and stage with spectator seats all the way around. The arena is the first to flood during a cloudburst incident and the drain in the middle leads the rainwater towards the drainage of the discharge pipe. HTV now covers the arena, the hilly cleansing biotope with a Tarzan course and the mega playground

equipment, both of which can be used for play and for sports. Cleansing biotopes are made primarily of different willow trees and poplars.

The transition between the school courtyard and HTV will be an experiment garden - an outdoors science lab, where students can research and experiment with, for example, urban nature. Permanent furniture is established for proper outdoor classrooms.

Connection to Jagtvej will be made clearer by expanding the park all the way to Jagtvej and Hans Egedes Gade. It is intended that the city nature that is produced by FABLAB for City nature will, in time, 'disseminate' out from Hans Tavsens Park. The white organic shapes in the park are open for programming. For example, it can be petanque courts, vegetable gardens, sun decks or outdoor crossfit. In some places the edges are even with the terrain, in other places they are raised by up to 0.5 m.



Willow cuttings Phytoremediation with willow trees and poplar trees



![](_page_29_Figure_1.jpeg)

#### EMERGING CITY LIFE AT FABLAB FOR CITY NATURE

Mini arboretum

Copenhagen's first FABLAB for city nature is located in Hans Tavsens Park between Blågård School and the manned playground HTØ. The FABLAB is a pavilion building, with architecture that of course should be further developed and qualified. Surrounding the FABLAB is an experimental grove, a planting garden and a compost garden, where children from the schools, residents of Nørrebro and all Copenhageners can take part in the development of a greener and more climate resilient Copenhagen. Here, the Copenhageners from near and wide can collect seeds, cuttings and mulch for their backyards, sidewalk gardens and balconies.

Principle perspective of the city nature at FABLAB for Urban nature, Blågård School and НТØ

Collection and recycling of roof water

City nature for the primary school

Seed sampling

Section 1:500 BB

# BLÅGÅRD SCHOOL, HTØ AND FABLAB FOR CITY NATURE FLAG BEARERS, BIOWASTE & MUTUAL CREATIVITY

The area surrounding Blågård School and HTØ will become a new cultural and social centre for Inner Nørrebro - and Copenhagen. It is here that Nørrebro's city nature is created by the residents and is shared between fellow citizens. Copenhagen's first FABLAB for City nature is anchored in the new HTØ and becomes the physical achievement of the collaboration between citizens, schools, playground staff and the park's operational members. The students take the lead as the flag bearers for the city nature.

We want to shape a physical collaboration between Blågård School's courtyard, HTØ and the Church by working with a uniformed design language that takes its impetus from the church square's characteristic circle of life. This mode of expression divides the urban area into

smaller areas which reduces further to children's scale. Some areas are programmed from day 1, while others are held open so that, for example, the students can utilise them for development of urban nature, outdoor teaching and minor construction projects. Ever changing urban areas where the open form allows possibilities for differences for many years to come. The bicycle path meanders between the circularly formed areas, so designed to foster speed reduction.

East of Blågård School, HTØ is placed as a circle of life against the cemetery's forest edge. Here, the smaller children can move around safely within the fenced yard. We will, in the future processing of the project, qualify arrangements of HTØ with the staff, users and KK.

FABLAB is placed for city nature between HTØ and Blågård School Here, bio-waste is made into compost, collected seeds, germinate. Experimented, pioneered and shared with the rest of Nørrebro and Copenhagen. Here there is always action in the new experiments, pioneer projects characterised by the city life. School children, hipsters and socially vulnerable all take part in the community fellowship.

Possible activities in FABLAB for urban nature include:

- Delivery of organic waste to compost
- The areas schools and gymnasiums are taught sustainability, biology, natural geography and possible elective subjects
- •
- Delivery of coffee grounds for the cultivation of fungi Outdoor cooking during summer •
- Films are shown and lectures are held during winter •
- •
- A circuit shop where locally grown produce is sold and shared. •
- intergenerational assembly point.

![](_page_29_Picture_26.jpeg)

- Tools and window boxes are available to be loaned
- Biodegradable products are delivered for tree planting
- FABLBET is used as an idea library for 'self-grow ideas'.
- The pavilion will be used as a community centre for the elderly,
- children and families, and as such will also function as an

![](_page_30_Picture_0.jpeg)

![](_page_31_Picture_0.jpeg)

![](_page_32_Picture_0.jpeg)

Joint creation of natural urban environment in the urban space between Blågård School's two school playgrounds

![](_page_33_Figure_0.jpeg)

### THE HELLIG KORS CHURCH City trees BUBBLING SPRINGS, WISE OLD TREES AND EVERYDAY LIFE

In our proposal, the Hellig Kors Church has been chosen to act as an architectural hinge and real life meeting place. The 'Korsgade Stream' trickles in the forecourt in a playful mosaic mirroring fragments of the architecture. The square is inclined so the rainwater is led across the square towards Korsgade. The wise old trees around the church are complemented with fruit trees and the life of the town is acted out immediately below the treetops. Students sit there studying for exams, whilst Andreas the priest picks apples together with the children from the parish kindergarten, Linden.

The urban environment east of the church is paved with various types of stone, thereby creating a coherent overall environment. In case of cloud bursts, the square is inclined so the rainwater is led across the square towards Korsgade.

The existing trees will be supplemented with new trees thus turning the square into a uniform green environment.

The large new trees mark out a trafficated area and guide vehicle and cycle traffic around the square. Pedestrians are the only beings welcome on the square. Moreover, the cobblestones help to slow down traffic.

On the forecourt of the square, the Korsgade Stream trickles from a column, which also serves as part of urban furnishing in front of the church entrance. Recycled rainwater and lake water is distributed in gullies approx 1 cm deep, which form a beautiful mosaic. Runners in the Nørrebroløbet must either run around it or hop from tile to tile.

The church's garden is itself supplemented by various types of trees which form a wood around the church. New tables and benches are set out on the grass to enable informal urban living. Bio waste is also composted here along with fallen leaves from the kindergarten and the parish hall. An informal space, leaving room to think about the course of life in the city.

Church front yard

![](_page_34_Picture_0.jpeg)

![](_page_35_Picture_1.jpeg)

#### QUINTESSENTIAL LOCAL EVERYDAY LIFE ON KORSGADE

Korsgade's narrow spaces and local crossroads are intended to support a quintessentially local street life which makes room for a satisfying everyday life filled with supermarket bags, green pavement gardens, green window boxes, trickling water, fitness bikes and all in a strongly-bonded neighbourhood.

Existing medicinal herbs near Korsgadehallen

Principal perspective of the intersection of Korsgade and Blågårdsgade

Section 1:500 DD

### **KORSGADE & BLÅGÅRDSGADE** TRICKLING SPRINGS, SUPERMARKET BAGS, ARUMATIC HERBS & NEIGHBUURLINESS

The axial architectural touch between the Church of the Holy Cross and Peblinge Lake is in fascinating contrast to the quintessentially local everyday life being played out in Korsgade. Here citizens take things into the own hands and plant myriads of seeds and cuttings on the pavements of Copenhagen, in backyards and in window and balcony boxes. New microcommunities arise in time with the growth of urban nature in Inner Nørrebro. The welfare implied by the architecture is in rebellious contrast to the living green environment. All this while the water continues on a purer course.

Once the project here has been completed the layout of Korsgade will change to a V shape, cobblestones will be laid out in squares, the circular purification system and the Korsgade spring will be installed, new Copenhagen sidewalks

will be laid and sequences of trees will be planted along the south facade (to avoid leaf falls in the gutters).

From then on residents will take matters into their own hands and plant green pavement gardens along the street and put up balcony and window boxes. In this way, the monotony of Korsgade will be interrupted by a myriad of green resident initiatives. Many of the children who live on Korsgade attend Blågård School and thus will be pioneers of developments along the road.

Because of their cobblestones, the transverse streets at the Korsgade cross-roads will help slow the traffic down, partly due to the rough tactile surface and partly due to their character of urban space rather than of street environment.

Medicinal herbs have been found on the Korsgadehallen roof. The seeds are collected in the FABLAB for urban nature and distributed to the residents of Korsgade.

Basically, all the parking spaces in Korsgade have been preserved.

Seed gathering and defoliation

Korsgade

![](_page_35_Picture_18.jpeg)

![](_page_36_Picture_0.jpeg)

![](_page_37_Picture_0.jpeg)

Korsgade - local urban life on the sunny side of the street. Residents can create green pavement gardens between the benches along the facades. The built-up environment is complemented by the grown environment

![](_page_39_Picture_1.jpeg)

#### WELCOME TO KORSGADE

The axis between the Church of the Holy Cross and Peblinge Lake terminates at Korsqade's Eastern cleansing biotope, and purifies all the day-to-day rain and almost all torrential rain before issuing into the lake. The biotope is surrounded by a promenade - Korsgade Søbalkon (Lakeside Balcony) - from where there is a beautiful view of Peblinge Lake.

Whereas formerly Korsgade was hidden between the buildings, it now reaches out to Copenhagen's citizens and bids them welcome to Inner Nørrebro.

Cleansing biotope: filter mulch, grass and juncus

Seed gathering Formation of Cypress slips

![](_page_39_Picture_7.jpeg)

Section 1:500 EE

### KORSGADE CLEANER LAKE WATER, SINGING RUSHES & BELVEDERE

The end of Korsqade towards Peblinge Lake reaches out to bid you welcome to Inner Nørrebro. The circular purification system represents a win-win solution both for Korsqade and Copenhagen - Korsgade is now more splendid - and Copenhagen's natural environment is enhanced. Here the entertainment quality of the natural world is enhanced into a True Copenhagen Experience!

Principal perspective view of Korsgade Lakeside Balcony

The last and largest purification biotope is installed as a peninsula along the lakeside and consists of a system of filtration humus and cleaning rushes and perhaps also swamp cypresses. The peninsula is referred to as the Korsgade Lakeside Balcony. There is a magnificent view of the lakes from the promenade skirting the biotope.

Rainwater from ordinary and torrential rain and lake water is purified here

for the last time before being led out into the lakes. Only in extraordinary circumstances will there be direct emission into Peblinge Lake. The reeds are cut once a year and are used in the FABLAB for making natural compost. Together with students from Copenhagen University Life, Nørrebro Park School pupils can take cuttings from the swamp cypresses and replant them in the purification biotope in Hans Tavsens Park.

Moreover, the biotope will attract new species of birds and insects and thus actively contribute to increased biodiversity in Copenhagen. As already mentioned, this purification system can also be installed underground, should it prove to be impossible to obtain official permission for the establishment of the Lakeside Balcony.

Cleansing biotope: filter mulch, grass and Taxodium distichum

![](_page_40_Picture_0.jpeg)

### PEBLINGE SØ

![](_page_40_Picture_2.jpeg)

![](_page_40_Picture_3.jpeg)

17. 2 5.4

the state of

![](_page_41_Picture_2.jpeg)

![](_page_42_Picture_0.jpeg)

Hans Tavsens Park after cloudburst - Nørrebro peace of mind