

Mobility hubs

Reference study

ACTIVE CITIES

Active mobility increased for sustainable, zero-carbon urban multimodality, through human-centric planning, mobility hubs and behaviour change

September 2023



Tornhøj, Aalborg East



Banetorvet, Brædstrup



Benedikts Plads, Odense



Jomfru Ane Parken, Aalborg

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Mobility hubs – reference study

The reference study was conducted in the period June–September 2023

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1. Assignment and approach

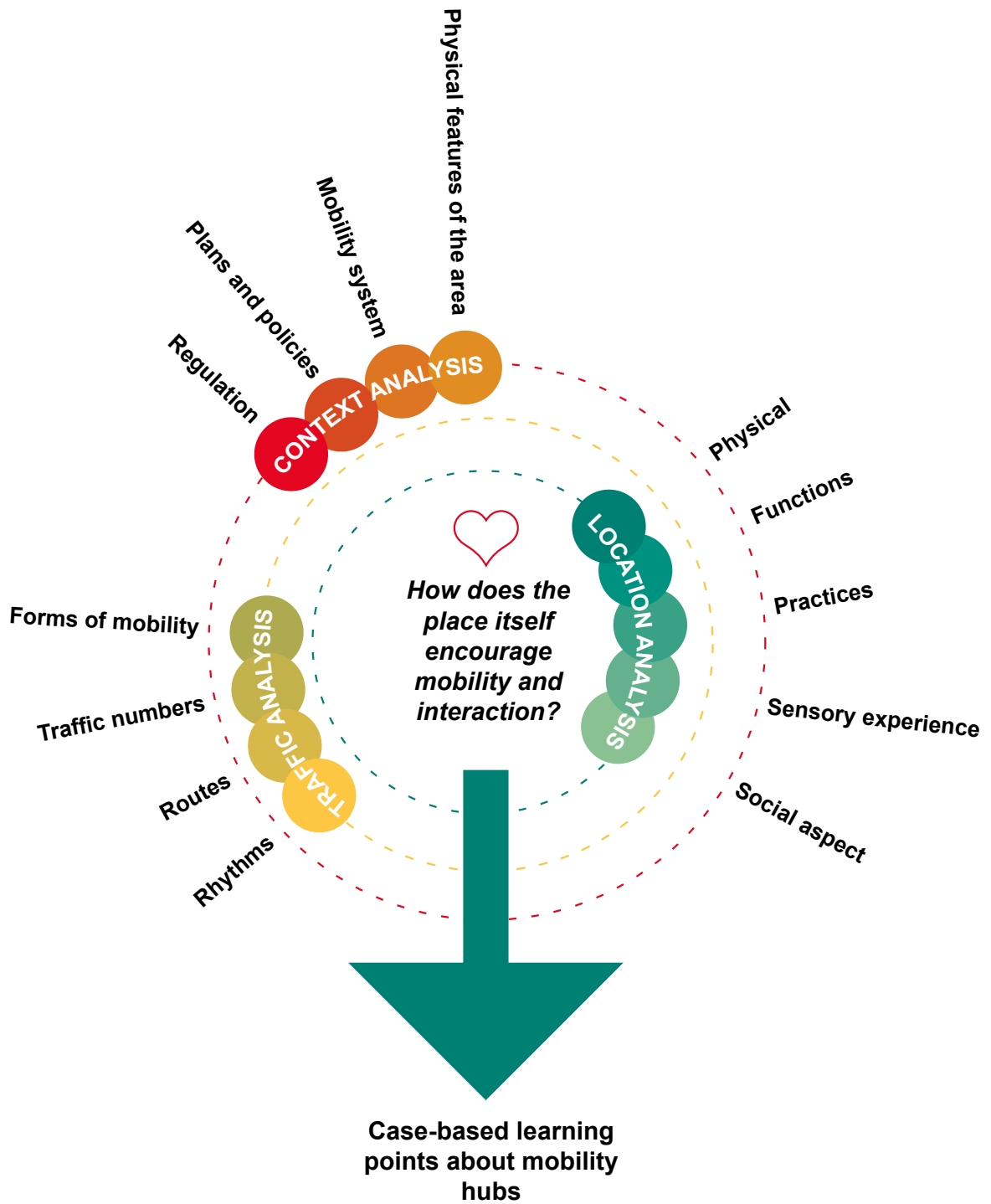
This booklet presents a reference study comprising analyses of four Danish examples of relevant urban spaces.

The intention is for these examples to provide inspiration for and insight into how transfer points in mobility systems can be designed as meeting places, or “hubs”, that not only allow quick and efficient transfers between modes of transport, but also present attractive areas for people to walk, spend time, experience the surroundings and interact.

The Municipality of Aarhus defines a mobility hub as: *“an urban space that inspires you, the user of said space, to consider active mobility. You may be presented with new modes of mobility, your children can learn to cycle, and you can test whether parking your car and continuing your journey on foot or by bicycle is a concept that would suit you. The space should be accommodating, attractive and broadly appealing; it should also provide you with timely inspiration.”* (Municipality of Aarhus, June 2023)

This reference study presents learning points for how to enable location and mobility to merge seamlessly, generating mutually positive influence, such that it is *the place itself* which – through its architecture, ambience, functions or urban life – invites you in, thus supporting the sometimes challenging changes in habit that are crucial for a transition to sustainable mobility.

The approach to the reference study is interdisciplinary, collating perspectives of planning, urban space, traffic and mobility into a coherent whole that provides a unified, fundamental understanding of the four locations selected.



2. Case selection and method

Case selection

The Municipality of Aarhus selected the four cases on the basis of an initial screening process and proposals from NIRAS. During the selection process, the emphasis was on choosing four cases that differ in context and scale, as well as with regard to the function of the urban space and “reasons-to-go”. A common trait of the four cases is that they are all, to a greater or lesser extent, urban spaces designed and equipped for active mobility.

Method/analysis model

Each of the cases selected has been analysed from the following three perspectives, collated and described in the analysis model to the left.

- *Location analysis:* The urban space as the framework for encounters between people, including the interaction between urban life and the nature and utilisation of the urban space. Drawing strongly on Danish urban space traditions, we focus clearly on the location as a spacious setting for sensory experience, visiting and frequenting, co-existence and exchange.
- *Traffic analysis:* The mechanics of traffic with the emphasis on access to and flow through the location for the various forms of mobility – forms of active mobility in particular.
- *Context analysis:* The interlinking of urban and mobility strategy, with the emphasis on the role of the location as a point of contact in the broader context of the area and the contextual conditions that establish the framework for the location, including the infrastructures and services of the mobility system.

In the case of Jomfru Ane Parken in Aalborg, a method supplement has been completed in the form of a GoodVision analysis. See the end of this report.

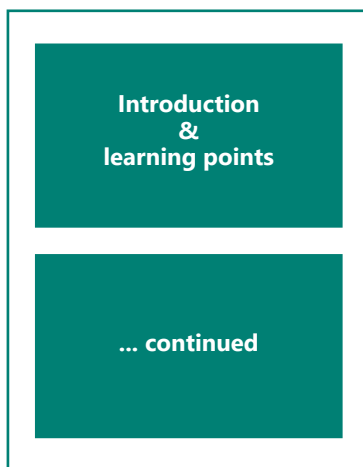
Data collection and process

Field work has been performed in all four cases. This work was conducted on weekdays in June and August 2023 and encompasses the following elements:

- observations of use, encounters, flows and so on
- photographic documentation of the location and of situations
- mapping of the spatial/physical features, mobility routes and content of the location
- two counts, each lasting half an hour, of active travellers in the area in question
- ethnographic interviews with approx. 10 users (active travellers) per case, focusing on their use and perception of the location
- assessment against 12 quality criteria – a method developed by Jan Gehl which highlights three principal values for an attractive urban space for people: protection, comfort and amenity value

In order to establish a holistic analysis of traffic, observations of forms of mobility and flows were performed during the field work, as was a mapping of routes. Counts were also carried out, supplemented by available traffic data from Mastra for the surrounding road network, as well as bicycle data from Open Data in cases where this information was available.

In addition, desktop research was conducted for each case, centring on documents covering context and planning conditions, as well as plan processes, including intentions for and evaluations of the location in question.



- intro-photos
- description of location
- user statements
- learning points

- photo documentation
- assessment against 12 quality criteria

Context analysis

- mapping of contextual conditions (1:5000)
- context analysis text cf. the analysis model

Location analysis

- mapping of physical/spatial features (1:500 or 1:1000)
- Location analysis text cf. the analysis model

Traffic analysis

- mapping of traffic flows, especially active mobility (1:500 or 1:1000)
- traffic analysis text cf. the analysis model

The analyses of each of the four cases presented on pp 27–45 are structured as described above, with an introduction and summary of case-based learning points, photos and assessment against 12 quality criteria, followed by analyses of context, location and traffic.

3. Analysis of four cases

The four cases selected and their principal features are presented in the table below. The analysis of each case is structured as illustrated to the left.

The following pages present cross-cutting conclusions from the four case studies.

The four case analyses are presented individually on pages 15–57.

CASE	Tornhøj, Aalborg East	Banetorvet, Brødstrup	Benedikts Plads, Odense	Jomfru Ane Parken, Aalborg
forms of mobility	walking, cycling, scooter, bus, car	walking, cycling, electric scooter, scooter, bus, car	walking, cycling, bus, light railway and car	walking, cycling, electric scooter
location	Suburb of Aalborg, 4,900 residents in Tornhøj	Separate small town in the Municipality of Horsens; population 7,000	Centre of Odense, 7,800 residents with a radius of 500 metres of the location	Centre of Aalborg, 17,600 residents in central Aalborg
reasons-to-go	functional junction, through traffic, transfer, visits and recreation	visits and recreation, through traffic, transfer, everyday functions	mobility junction, through traffic, transfer	visits, recreation, through traffic
field work - time - weather - comments, if any	<ul style="list-style-type: none"> - Tuesday, 13 June 09:15–13:45 - bright sunlight, 20+ degrees, no wind - building site in eastern part of the area > car parking restricted 	<ul style="list-style-type: none"> - Thursday, 15 June 09:00–14:00 - cloudy, no wind, light showers (some heavier), but warm 	<ul style="list-style-type: none"> - Monday, 19 June 09:15–12:00 (light railway not running) // Thursday, 17 August, 15:00–17:30 - some sun, light wind, warm 	<ul style="list-style-type: none"> - Monday, 28 August 09:00–13:00 - Cloudy, no wind; sunny spells, rain during the night, so wet

How does the place itself encourage mobility and interaction?
- 20 case-based learning points about mobility hubs

Jomfru Ane Parken, Aalborg // p. 45

- 1 / **Amenity value alongside the water, away from the traffic**
- 2 / **Multifunctional, rich in experiences**
- 3 / **"For everyday use and special events"**
- 4 / **Accessibility and connections – a well-functioning and attractive route in the city**
- 5 / **An extension of the city centre**

Tornhøj, Aalborg East // p. 15

- 1 / **Stimulating experience**
- 2 / **Various functions and active peripheral zones**
- 3 / **Traffic hierarchy enables free, diverse behaviour for active travellers**
- 4 / **Accessibility and connections**
- 5 / **Holistic design engenders a sense of security**

Banetorvet, Brædstrup // p. 25

- 1 / **Interconnection: location identity and everyday life**
- 2 / **Concentration of critical mass**
- 3 / **Relevant urban space**
- 4 / **Children and opportunities for play generate life and bring people together**
- 5 / **Natural flow routes integrated into the urban space design**

Benedikts Plads, Odense // p. 35

- 1 / **Smoothly running traffic machine in a central location**
- 2 / **Care for "people in the space"**
- 3 / **Stepping on the brake; the space for active travellers**
- 4 / **Dedicated space for active travellers**
- 5 / **Active place with urban functions and good lines of sight**



4. Conclusions

How does the place itself encourage mobility and interaction?

Case-based learning points

The reference study has produced 20 case-based learning points about mobility hubs, which are presented on the map on page 10.

These learning points span a broad range, from specific, physical features and points of focus – both in the broader context and with regard to small, person-centric details – that are encountered in the urban space, to behaviour-regulating designs and traffic initiatives.

They are all considered, jointly, to contribute to making transfer points in mobility systems meeting places, or “hubs”, that not only allow quick and efficient transfers between modes of transport, but also present attractive areas for people to walk, spend time, experience the surroundings and interact.

Reasons-to-go

All the urban spaces analysed contain large or small everyday destinations that constitute “reasons-to-go” for their users.

In several places, we noted that different urban functions exist side by side with the mobility functions and interact with same.

Some are actual functional junctions, possibly comparable with contemporary marketplaces of a kind, with shopping options and cafés. This applies in particular to Tornhøj, Aalborg East, but was also evident at Banetorvet, Brædstrup.

Another location – Jomfru Ane Parken in Aalborg – is a meeting place on account of the quality of the opportunities for recreation and spending time it presents, and because it is a favourite route for active travellers.

The last location – Benedikts Plads in Odense – is a traffic space that becomes a meeting place for passers-by on account of the flow patterns.

It would thus appear that mobility hubs can arise in various forms wherever there is a flow of people passing through or en route to a specific destination.

People in the urban space:

flows, spatial conditions, aesthetics, sensory experience

Many of the learning points centre on people’s immediate encounter with the location.

Active travellers comprise a diverse group with markedly different needs and behaviours. For example, cyclists and pedestrians move at different speeds, but within these categories themselves, considerable variation can be observed with regard to pace, physical capacity, purpose and time.

There are active travellers who are busy, who are taking a break, who are meeting others, and who are exploring the area. A trait they share, however, is that their motion is relatively slow and tactile, with pedestrians in particular appreciating full freedom of movement with every opportunity to switch direction.

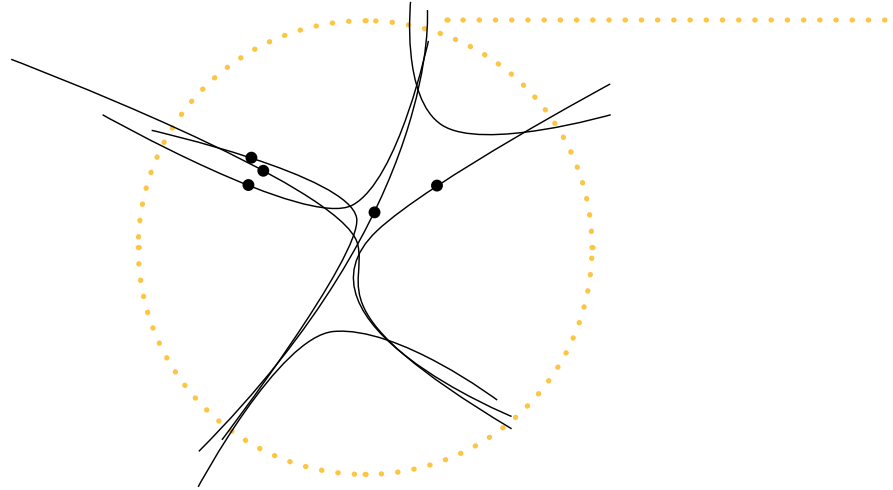
All the urban spaces analysed demonstrate that mobility hubs can meet these differing needs and be attractive, effective and rich in experiences in diverse ways.

The cases examined feature a variety of location-specific conditions, and while some of these places offer a high level of free movement in multiple directions, active mobility in others is defined by the directions designated by more closely designed routes.

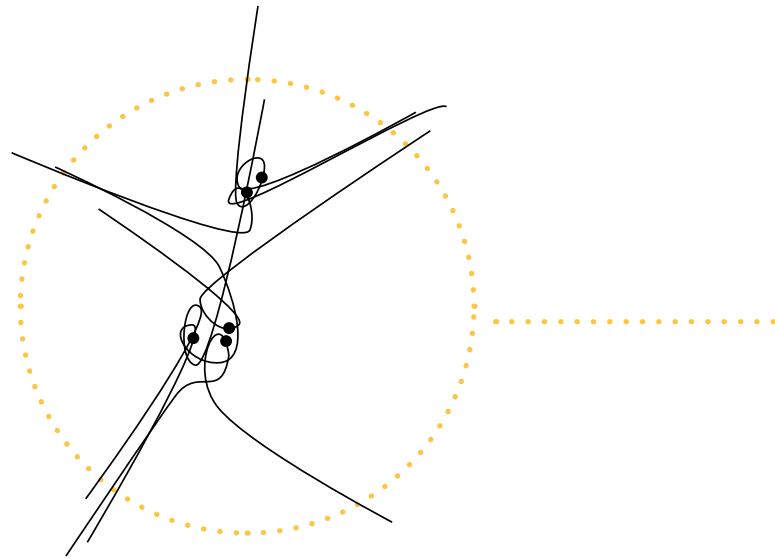
From a perceived perspective – a person-centric encounter with the urban area, seen and noted through the eyes of an active traveller – we can see how the urban spaces studied succeed in different ways in providing experiences, in encompassing different types of ambience and atmosphere, and in meeting active travellers with both materiality and tactility.

In all the urban spaces, we thus note an emphasis on inviting people to make use of the area through spatial, aesthetic and sensory qualities that are experienced at a person-centric level.

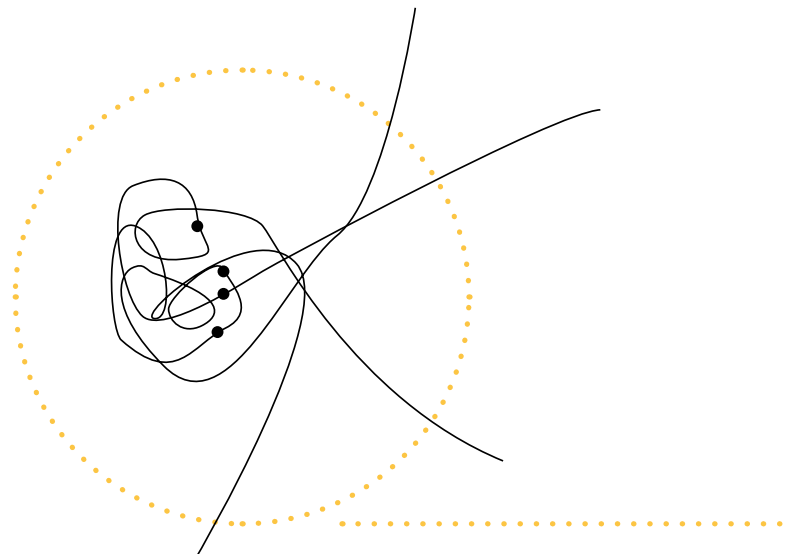
People pass one another, see and are seen, perhaps exchange greetings in passing, or wait at a bus stop, for instance.
- *observed in all four cases*



People accompany one another in small groups or stop spontaneously en route, exchange greetings and perhaps engage in conversation.
- *observed in all four cases*



People meet as planned to visit the area or engage in an activity.
- *observed in the cases of Tornhøj, Aalborg East; Banetorvet, Brædstrup; and Jomfru Ane Parken, Aalborg*



Types of meetings

In the case analyses, we have observed multiple forms of meetings between people. The diagram on page 12 outlines three types of meeting, with examples of the three types presented on the right.

Here we can see that meetings between active travellers in the selected urban spaces span different types of situation, which are defined by the people's speed, social constellation and purpose in their journey.

In some cases, a meeting can be said to occur simply by people being present at the same time and passing one another. It may be that people see – and are seen by – the others; or that people are waiting at a bus stop and, on occasion, exchange a brief nod of greeting with one another. Such meetings can seem immaterial, but they form part of the key social function of the urban space as a public area, where we are exposed to urban life per se, and to other people. These situations arise when flow routes for active travellers and passengers on public transport intersect, when the pace is relatively low, and where travellers have the opportunity to see and be seen in the urban space.

In other cases, we note that meetings between people occur when one or more people accompany one another, or when people stop on spontaneously meeting an acquaintance, taking the time to exchange greetings and perhaps engage in a conversation. Meetings of this kind occur when the urban setting offers sufficient space, tranquillity (e.g. the absence of noise) and a perception of security that allows people to accompany one another at a gentle pace, and even to stop for a while en route. Spontaneous meetings between acquaintances occur most often in urban spaces that play an important role for the local community, and where many people already know one another.

On yet other occasions, the urban space provides the setting for actually spending time outdoors or engaging in an activity, sometimes in the company of others. These meetings add an extra layer to the other types of meetings, with more activity and urban life closely linked to the location. They generally occur in places where the urban space, in addition to providing flow routes for active travellers, presents opportunities for activities and spending time outdoors, although the perception of security or of an "active place" does not necessarily assume a lengthy visit. In and of itself, the fleeting passage of other people contributes vitality and attractiveness to the urban spaces.



1999

2022

Tornhøj, Aalborg East



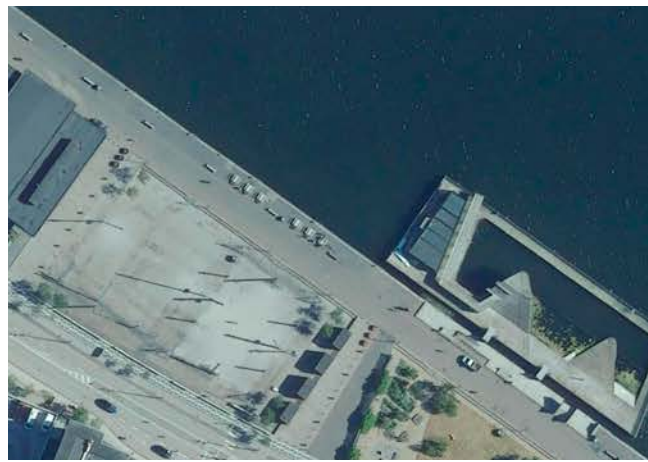
Banetorvet, Brædstrup



Benedikts Plads, Odense



Jomfru Ane Parken, Aalborg



1:2000 in A4

Interplay between traffic and urban quality

The cases thus indicate that while the organisation and design of mobility hubs with the emphasis on active mobility may immediately be viewed as a question of safe, efficient traffic operation for vulnerable road users, it is relevant to examine the interplay with broader considerations regarding the quality of the location in question.

Common to all cases is that the various forms of active mobility have been accorded space and are distanced from any motorised traffic. The urban spaces have generally been laid out to show consideration for the needs of active travellers, not only to allow them to reach their destinations safely and efficiently, but also to do so in attractive ways – there is every chance to be social and to experience both the location and the city en route. It could be said that active travellers are ranked high in the hierarchy, and that speeds and the mechanics of traffic are generally on their terms. For example, all four cases feature the opportunity to walk and cycle together, side-by-side; users can cross the area relatively freely, stop for a while or seek out a good spot to take a break or to wait.

At the same time, the urban spaces differ appreciably and the location-specific conditions play a major role in the actual design approaches and solutions.

While Jomfru Ane Parken largely works on account of its placement and amenity value, from which active travellers can benefit strongly, Tornhøj is an example of how a holistic approach and concentration of functions have succeeded in creating a relevant urban space that has become a natural mobility hub. Banetorvet presents a similar situation: a meeting point in a local community that fulfils a functional and social role at the same time as being an actual traffic junction. Here, the flow routes for the active travellers have formed the basis for the physical design of the square, whose layout is intended to allow people to move back and forth between the surrounding functions, naturally leading active travellers directly into the most active area of the town and helping to bring it to life. In Benedikts Plads, too, the flow routes have been laid out specifically for the organisation and design of the location, but in this case, the integration of active mobility with the light railway, buses and cars is crucial to the expression of the space and to how it is perceived; it is first and foremost a traffic junction, where the emphasis is on safe, secure and efficient flows.

Cross-cutting initiatives

The eight orthophotographs on page 14 illustrate how the four cases have developed from 1999 to 2022.

The changes are an expression of the remodelling that has taken place in the towns and cities over an extended period. In several of the cases, the context analyses of plans and policies demonstrate that the urban spaces examined are part of strategic, cross-cutting initiatives that unite multiple goals and visions for development in the specific urban spaces of the towns and cities in question.

They feature cross-cutting urban-strategic aspects that include, for instance, aspirations for urban development quality in specific remodelling or urban renewal projects, where facets such as functionality, cultural heritage, location identity, traffic flow, accessibility and social objectives for health and equality have been jointly considered.

The urban spaces analysed are thus the result of long-term strategic initiatives involving multiple municipal administration departments, with input from many different professionals.



Tornhøj is an active urban space in the suburb of Aalborg East, where various everyday functions are integrated with fine opportunities for active mobility.

Statements from users:

“a really nice place” & “a place where we hang out”
(with friends)

boy, approx. 16 years old, pedestrian, on his way from a nearby school

“aesthetically appealing” & “hotspot”

woman, approx. 30 years old, spending time with children at the playground

“a peaceful, safe place”

woman, approx. 25 years old, pedestrian, on her way home with shopping

“good paths and the fewest hills”

couple, approx. 60 years old, cyclists passing through

“they meet up at ‘The Spider’” (about 9-year-old daughter and her friends) & “a park-like place”

man, approx. 35 years old, pedestrian, on his way home with shopping

established in: 2020

forms of mobility: walking, cycling, scooter, bus, car

location: Aalborg East (4,900 residents in Tornhøj)

reasons-to-go: functional junction, through traffic, transfer, spending time outdoors and recreation

Tornhøj is an urban space that has been converted from a traffic-segregated function point in the suburb of Aalborg East into a coherent urban space where a variety of functions, including shops, activities and options for spending time outdoors have been integrated with active mobility and transfers from cars and buses.

During the conversion process, the emphasis was on spatial and physical co-existence of the multiple purposes that the urban space encompasses, through the creation of an uncomplicated, coherent, multifunctional and safe centre for the urban area.

The location invites people to journey actively along a broad pedestrian and cycle path (Astrupstien), which is the backbone for the “soft” traffic in the entire urban area, and links up with other key destinations such as the university in the south. Secondary paths from here provide access to the local functions, facilities and residential areas in the immediate vicinity.

The path runs through a converted tunnel, which has become an open and airy passage under a traffic artery (Humblebakken), where several bus routes link to the centre of Aalborg, as well as to the surrounding urban community and the university area.

The result for active travellers is that traffic, arrivals, departures and transfers all take place in an uncomplicated, coherent and active urban space, where people meet each other naturally in the context of everyday errands and travel (for example on the way to and from school, shopping). People pass one another, see and are seen, sometimes exchange greetings in passing or wait at the bus stop. People accompany one another in small groups along the path, which permits relaxed, safe mobility and allows for spontaneous stops en route – to chat to an acquaintance, for example. It also allows people to meet as planned to visit the location or engage in an activity.

Learning points from Tornhøj, Aalborg East

- 1 / **Stimulating experience**
An active urban life to participate in, against the backdrop of an inviting, green urban space featuring good materials, a variety of opportunities for visiting and engaging in activities, and stimulating façades with functions.
- 2 / **Various functions and active peripheral zones**
A solid backbone, with finely defined areas for different activities and for simply visiting the urban space.
- 3 / **Traffic hierarchy enables free, diverse behaviour for active travellers**
Active travellers can use a separate system, segregated from motor vehicles. Targeted use of materials and levels, as well as dimensioning of paths to allow free and diverse behaviour for pedestrians, cyclists and other vulnerable road users.
- 4 / **Accessibility and connections**
Clear visual and physical connections for active travellers, and between bus lines and the rest of the urban space.
- 5 / **Holistic design engenders a sense of security**
“Eyes on the street”, multifunctionality, varied urban life (activities at multiple times of day), good overview conditions and illumination in the dark.





Assessment against 12 quality criteria
 – method according to Jan Gehl

PROTECTION	<p>- against traffic and accidents</p> <ul style="list-style-type: none"> closed, "soft" traffic system with slow speeds and good overview distance to and segregation from motor vehicles safe and secure place to frequent few fast-moving mopeds 	<p>- against criminality and violence</p> <ul style="list-style-type: none"> mobility side-by-side with active functions, for example at ground-floor level and with many residences with windows and balconies overlooking the area; "eyes on the street" people present on various errands; clearly conscious attention to illumination 	<p>- against unpleasant sensory impacts</p> <ul style="list-style-type: none"> the area takes the form of a "bowl" on a different level from the motorised traffic system, not much noise feels shielded from the wind possible to move into the shade or out into the sun
COMFORT	<p>opportunity to walk/cycle</p> <ul style="list-style-type: none"> good path conditions, a common path with a "shared space" feel where cyclists and pedestrians mingle broad path whose design promotes slow speed and full freedom of movement access to bus stop; path through the area 	<p>opportunity to stand/spend time</p> <ul style="list-style-type: none"> good conditions, plenty of room and facilities, including places to spend time outdoors the bus stop features a covered shelter and two benches 	<p>opportunity to sit</p> <ul style="list-style-type: none"> numerous benches in the park, near building façades and by the bus stop; also table/bench sets and a low wall/plinth between path and park, ideal for stopping for a while
	<p>opportunity to see</p> <ul style="list-style-type: none"> uncomplicated place, clear overview in several directions, especially directly along the path to the north through the tunnel and to the south varied local urban life – see others and be seen yourself a well-organised green area with activities to watch 	<p>opportunity to talk and listen</p> <ul style="list-style-type: none"> good conditions – shielded "bowl"; divided into several small "compartments" – people can withdraw to quieter parts generally tranquil (in spite of audible noise from traffic and construction work) 	<p>opportunity for leisure interests/activity</p> <ul style="list-style-type: none"> the path promotes motion and active mobility; people go for walks (with or without dogs), cycle, ride electric scooters; very young children walk along the path unassisted, some holding onto a pram for support spacious, secluded and inviting park and playground cafés and shops attract people; it is a place to "hang out"
AMENITY	<p>scale</p> <ul style="list-style-type: none"> relatively tall buildings (some 4+ storeys), developed peripheral zone with active and open ground floor levels and private balconies, for example a large space from façade to façade, but divided into smaller areas and small-scale niches with plants and greenery, places to spend time, peripheral zones and illumination that bring the place down to person-centric scale 	<p>opportunity to enjoy good weather</p> <ul style="list-style-type: none"> good opportunities to find a space in the sun or in the shade the small park is perfect for activities and spending some time generally speaking, a park-like area with plenty of opportunities to stop for a while, interwoven with active urban life and active mobility 	<p>aesthetic qualities/positive sensory impressions</p> <ul style="list-style-type: none"> a new and attractive place – new buildings and urban space harmonised materials green and fertile – noticeably large trees, as well as newly planted trees, bushes and flower beds a harmonised combination of hard and robust, soft and green



1:5000 in A4



The map shows a section of the Aalborg East district, with Tornhøj highlighted. Nearby functions and the overarching mobility system are marked (green = principal path for active travellers; yellow = bus routes; red = general motor vehicle infrastructure)

Context analysis

Physical features of the area

- Suburb of Aalborg, just over 6 km east of the city centre.
- Independently functioning section of the city.
- Planned and constructed according to functionalist principles with regard to function zoning and traffic segregation; large number of public housing units.
- In recent years, this section of the city has undergone a comprehensive remodelling process including mixed forms of residence, renovations of buildings and urban spaces, and establishment of new, mixed functions.
- The area selected has undergone significant remodelling, resulting in new urban spaces and a concentration of mixed functions.
- Today, the area is a renewed urban area centre, linking the areas north and south of the major thoroughfare, Humlebakken.
- Astrupstien path winds through the area to a central space that brings together functions and path connections in the Tornhøjgård area, the Tornhøjcenteret shopping centre, Tornhøjsskolen school, the Trekanten Culture Centre and the Health and Community Centre.

Mobility system

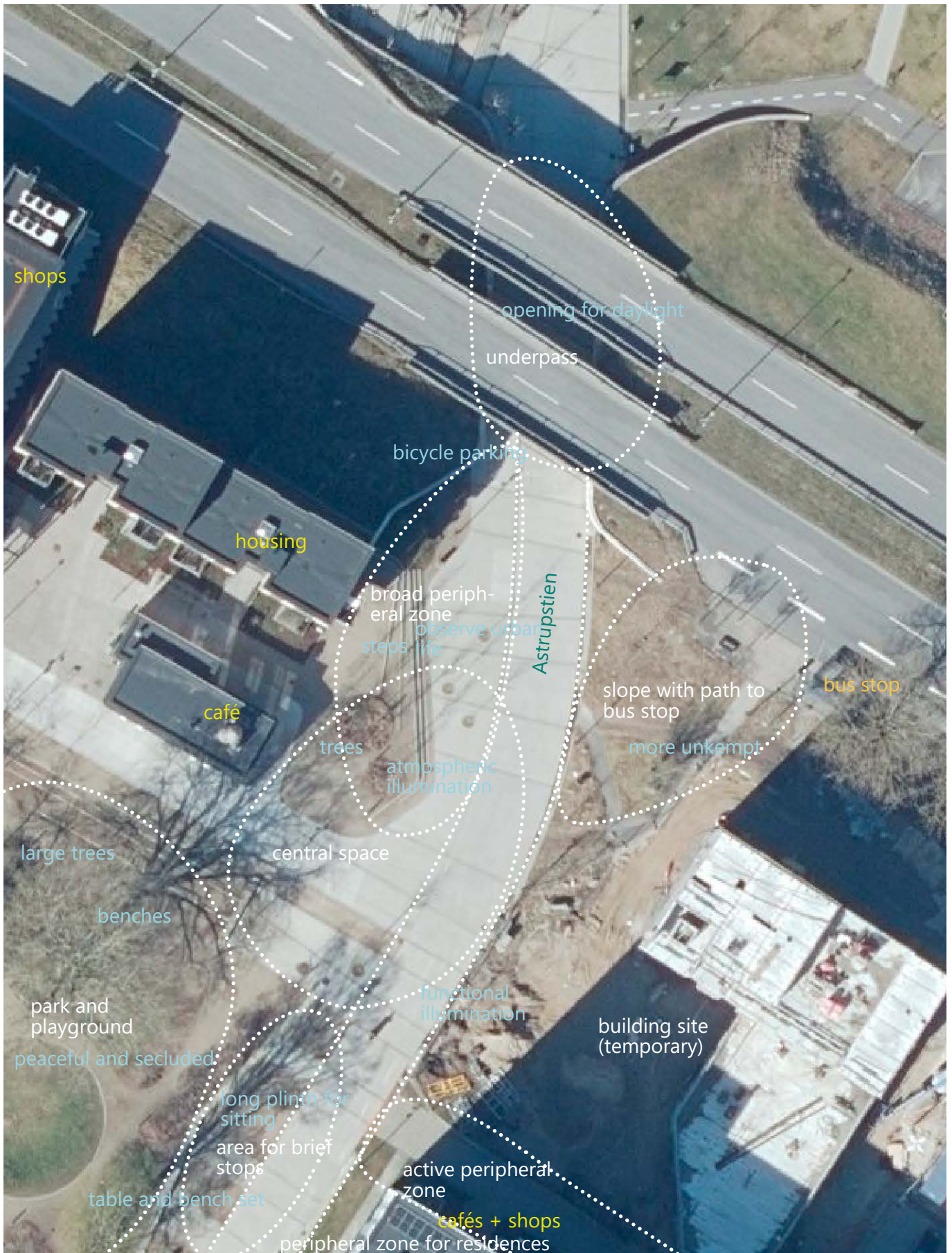
- Astrupstien path, which runs from north to south, is the backbone of this section of the city; it serves as a common path for non-motorised traffic.
- Roads for motor traffic encircle the area, including a major traffic artery (Humblebakken), running from east to west and leading into the centre of Aalborg.
- Three bus routes operate to and from the area, providing access to the centre of Aalborg, the university area and nearby urban communities.
- Vertical segregation of road users, with a closed network of paths and underpasses to lead vulnerable road users beneath major roads for motor traffic (SCAFT principles).

Plans and policies

- Developed as a part of the Realdania initiative Kickstart Forstaden (Kick-start the suburbs), which places emphasis on sustainable development of suburbs.
- A repudiation of the diffuse, divided nature of suburbs. Instead, the desire was to make the urban space, path and tunnel the “glue” to bind the area together once more, and to create a finely functioning and attractive point of concentration around everyday errands and chores. (Realdania and the Municipality of Aalborg, Kickstart Forstaden – Aalborg East)
- Planned on the basis of three development principles: strengthen the backbone (Astrupstien), concentrate the functions, and open up with a view to creating an attractive meeting point.
- Total project finances of DKK 50 million.
- The local plan stipulates that any new construction must not take the form of “locked” squares, and that the public functions at ground floor level are to feature open façades overlooking urban spaces and active street environments.

Regulation

- Traffic segregation regulates mobility behaviour in the area with a strict traffic hierarchy, where vulnerable road users travel in a separate mobility system, distanced from motorised traffic.
 - An ongoing construction project significantly limits car parking in the area.
 - Mobility behaviour among active travellers seems to be regulated by the design of the urban space itself. There is plenty of space for active travellers, with good visibility conditions. These conditions potentially encourage high speeds, but the pace here is slow, especially in the central crossing area, which assumes the form of a shared space where numerous pedestrians – with and without prams, dogs, children and the like – make their way both along and across the path. Wooden beams laid transversely in the surface of this section of the path may also serve as elements that both sharpen awareness and reduce speed among cyclists.
 - There are very few signs indicating the shared pedestrian and cycle path, pedestrian-only zone and cycle route.
-



1:500 in A4

The map shows the central section of the Tornhøj area around Astrupstien path. The various spaces linked together in the area, spatial characteristics, functions and facilities are marked.



Location analysis

Physical

- A consolidated urban space that stretches under the road (Humblebakken) and extends in different directions around the central path intersection.
- The area takes the form of a “bowl” in the terrain and presents as a shielded, green, well cared-for space – sheltered from traffic and wind.
- A series of large and small spaces with various features and potential uses are linked to the path (see map).
- There are clear visual connections in all directions, for example from the central space to the bus stop and vice versa.
- The path is surfaced with coarse, brushed concrete, interrupted on Astrupstien path by transverse wooden beams.
- The hard surface is combined with large planted areas and numerous flower beds and trees of different ages and sizes – notable, large, old trees in the park. The park also features a prominent, sculptural play-spider.
- The buildings are newly constructed and of different heights up to 4+ storeys.
- Peripheral zones between buildings and paths, and between the different spatial areas; areas of different character, carefully processed; for example, a long multi-storey façade with windows and balconies facing the path, an area to stop for a while between park and path, and active façades featuring shops and cafés.
- The subsidiary area between path and bus stop is significantly less landscaped than the rest of the area (possibly under way on account of the building site).
- The area around the bus stop is spacious and green, featuring several benches and a shelter.

Functions and facilities

- Mixed local urban centre with a variety of public-oriented functions at ground-floor level with large windows, including cafés, a pizzeria and Netto and Lidl supermarkets.
- In addition to this, there are numerous residential buildings, a school in the immediate vicinity, institutions, a nursing home, culture centre and health centre.
- The urban space also comprises cycle paths, pedestrian paths, a bus stop, playground and park, as well as parking areas for cars and bicycles.
- There are plenty of places to sit and stop informally in the urban space: on benches, bench and table sets, a long plinth and steps.
- Toilet facilities are available at the Trekanten culture centre during its opening hours, at the health centre and in the nearby cafés.
- The plants are well maintained and there are rubbish bins in the area.
- There is space to park bicycles near the underpass and alongside the residential buildings.
- Functional illumination has been established along the paths: low-level lampposts (approx. 4 metres tall) with spotlights and light bollards in the park. Lighting in the surface of the common path (spots) and fluorescent lights in the underpass.

Practices

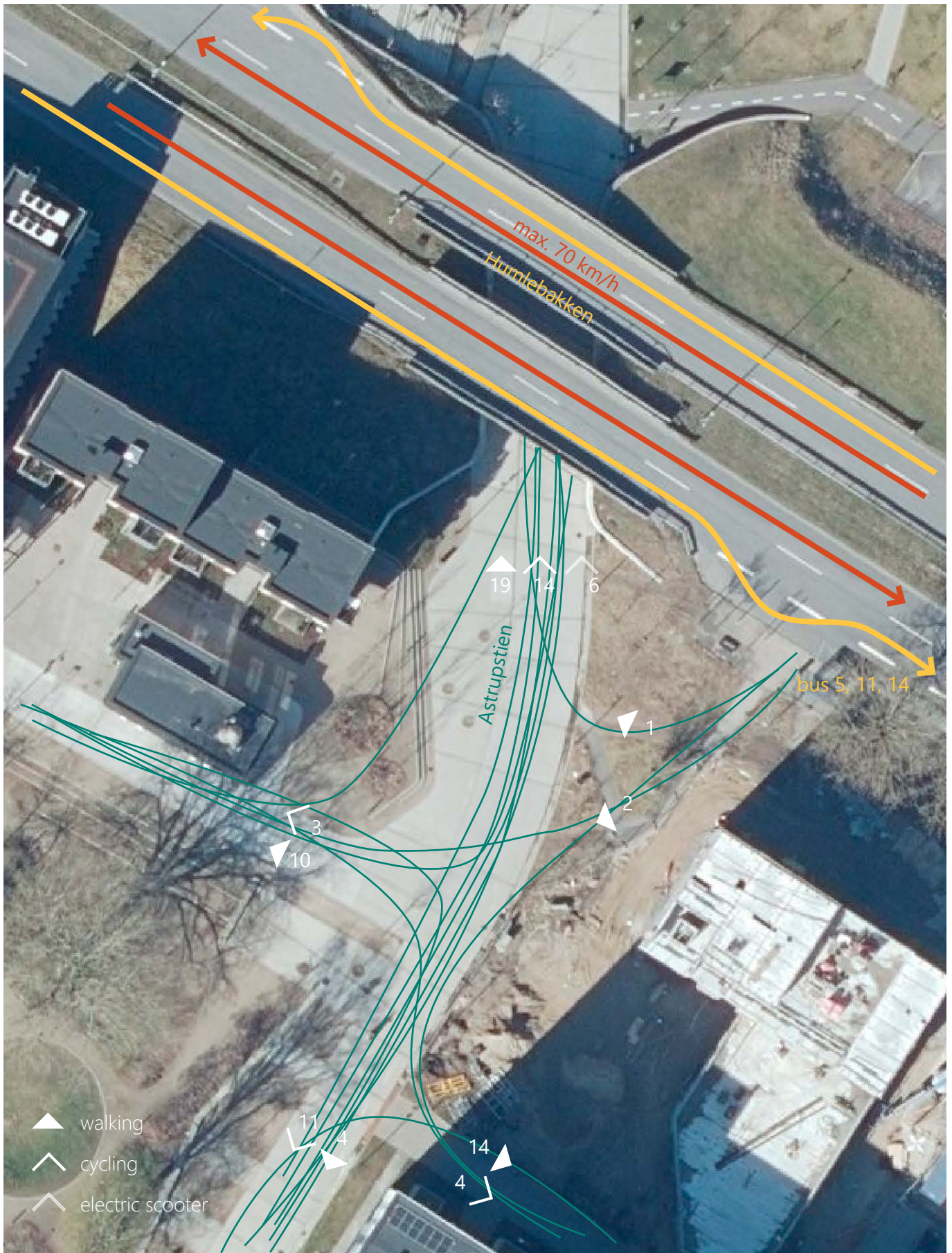
- People frequent the area at slow speeds on foot or by bicycle.
- Many people use the area to go to and from shops, others use it for walking (some with prams or with their dogs).
- Daycare staff and people from the institutions cycling on cargo bikes or walking with push chairs.
- Some people stop to exchange greetings or have a chat, or spend time in the park or on one of the benches.

Sensory experience

- Limited noise from the road – does not “penetrate” the shielded urban space.
- Birdsong and human voices can be heard.
- Tranquil everyday life in the middle of the day.
- Specific times of greater intensity with more passers-by.
- Good opportunities to enjoy both sun and shade.
- A varied, peaceful, local urban life; you can see others and be seen yourself.
- Green and well-organised.

Social aspect

- People pass one another here; see and are seen.
 - Some exchange greetings in passing.
 - People wait at the bus stop, where others are also waiting or arriving.
 - People accompany each other in small groups along the path that allows safe, relaxed traversal of the area.
 - People stop spontaneously en route – some chat briefly with an acquaintance.
 - Others meet as planned to spend time outdoors or to engage in activities in the park, for example, or to “hang out” in the area by the cafés and shops.
-



1:500 in A4

The map shows the central section of the Tornhøj area around Astrupstien path. The different forms of mobility are marked (green = active travellers; yellow = bus; red = motor vehicles), as are observed routes for active travellers and a simple traffic count of these travellers.



Traffic analysis

Forms of mobility

- Walking: many walkers, unrestricted – walk along and back and forth across Astrupstien, many in small groups, such as small children out for walks with daycare staff who, walking in groups holding hands, take up a lot of space on the path and move at a slow pace. This does not appear to cause significant conflicts.
- Cycling: a fair number of cyclists, primarily on the north–south path, with a few on the subsidiary paths. The pace is slow around the central intersection, which assumes the form of a shared space where numerous pedestrians – with and without prams, dogs, children and the like – make their way both along and across the path.
- Bus: passengers using the three bus routes board and alight at the bus stop on the main road (Humblebakken), where there are benches and a shelter. Access to the bus stop is along a small, asphalted, relatively steep path leading off the main path, as well as via a number of short, trodden paths.
- Other: a fair number of electric scooter riders use the path network, including Astrupstien. A few mopeds/powerful scooters can also be seen travelling through the area.

Traffic numbers

- A simple count was performed between 13:10 and 13:40 (see map).
- The count reveals a relatively large number of pedestrians and cyclists on the main path and on the adjacent paths that provide access to shops, the school and residences, while only a few people were observed boarding buses during this period.

Routes

- The primary route for active travellers is the broad, north–south path (Astrupstien), which is a common path for pedestrians, cyclists and other vulnerable road users.
- Other important routes are the subsidiary paths, which lead to the shops to the west and east, and towards the school, residences, etc.
- The route to the bus stop was only lightly used during the observation period, and the trodden path to this point indicates how pedestrians find and use the shortest route.
- Cyclists primarily travel along Astrupstien, but also use the adjacent paths. Pedestrian routes lead in all directions.

Rhythms

- It is a generally peaceful place with a steady flow of people during the period observed (weekday, 09:15–13:45). People stroll freely, sometimes stopping to exchange a few words with others on the shared path.
 - People walk in groups or ride side-by-side on electric scooters or bicycles.
 - While many people seem to be making their way to a specific destination (especially shops), the space is also used for walking dogs and taking a stroll with a child in a pram.
 - Behaviour and user statements indicate that this is a safe and secure place to frequent. This can be challenged when the customarily calm navigation of the area between other users is disrupted (scooters travelling fast).
 - School hours seem to generate peaks of older pupils, who use the area during break times, as well as other pupils who traverse the area at the end of the school day.
 - Most people are in motion in the area; only a few stopped for a while during the observation period. However, the majority of people use the area for recreational purposes and for gentle walks. User statements indicate that it is largely a meeting place for planned activities and visiting at other times of the day.
-



Banetorvet is a central area in the former station town of Brædstrup, a place where people come to spend time or pass through on their way to shops, schools, along Banestien path or to and from the bus station, which is located next to the square.

Statements from users:

“There’s so much to do here – both for young and for slightly older children.”

Girl, approx. 14 years old, eating an ice cream on Banetorvet with two friends.

“It’s fantastic that a small town like Brædstrup has a place like this.”

Woman, approx. 55 years old, kindergarten teacher

“People are attracted by the sound of children playing and laughing.”

Man, approx. 40 years old, waiter at the restaurant

“I like to come here if there’s something going on, something to look at and someone to talk to.”

Man, approx. 60 years old, shopping in the Rema 1000 supermarket

“Shall we cycle to Brædstrup and have an ice cream?” (school pupils who view and refer to Banetorvet as Brædstrup)

Boy, approx. 14 years old, eating an ice cream on Banetorvet with two friends.

established in: 2021

forms of mobility: walking, cycling, scooter, electric scooter, bus, car

location: Brædstrup (population: 7,000)

reasons-to-go: functional junction, visits and recreation

Brædstrup is a former station town that features the majority of the urban functions that most people need on an everyday basis.

On account of its previous status as the “capital” of the former Municipality of Brædstrup, the town was also the site of many public institutions in relation to its size. Many of these buildings have been remodelled today and the railway line has been closed. However, the station building and the old post office remain as historical markers of change, and to explain the origins and principal patterns of the town; today, however, they serve new functions.

Based on the desire to re-enliven the old centre of town with a more clearly defined urban space, Banetorvet has been established as a coherent area extending over Bredgade, from the old dairy to the station building. Banetorvet has become the definition of Brædstrup and the place where people meet. The area provides space for engaging in activities, for taking quiet breaks, and for visitors to the town.

Devised jointly with the re-establishment of Banestien path, which follows the route of the disused railway line between Horsens and Silkeborg, the space highlights the cultural history of Brædstrup and unites the various parts of the town. As such, there was also a desire to support cycling and hiking tourism, with the town square – Brædstrup Banetorv – as an exciting stop en route.

From an everyday perspective, Banetorvet is a central space for the local residents – a hub of urban life in the little town. The location invites people to stop for a while on one of the many benches or to play on the popular swings which attract a diverse target group with a broad spread of ages. The square has become an assembly point that encourages both spontaneous and planned encounters, and where active travellers of all ages criss-cross the area as they please.

With its location close to the town coach station, the place also has potential as an interlinked hub for urban life and mobility, but it has not yet integrated these aspects such that waiting at the coach stop becomes an integral part of the other features Banetorvet square has to offer.

Learning points from Banetorvet, Brædstrup

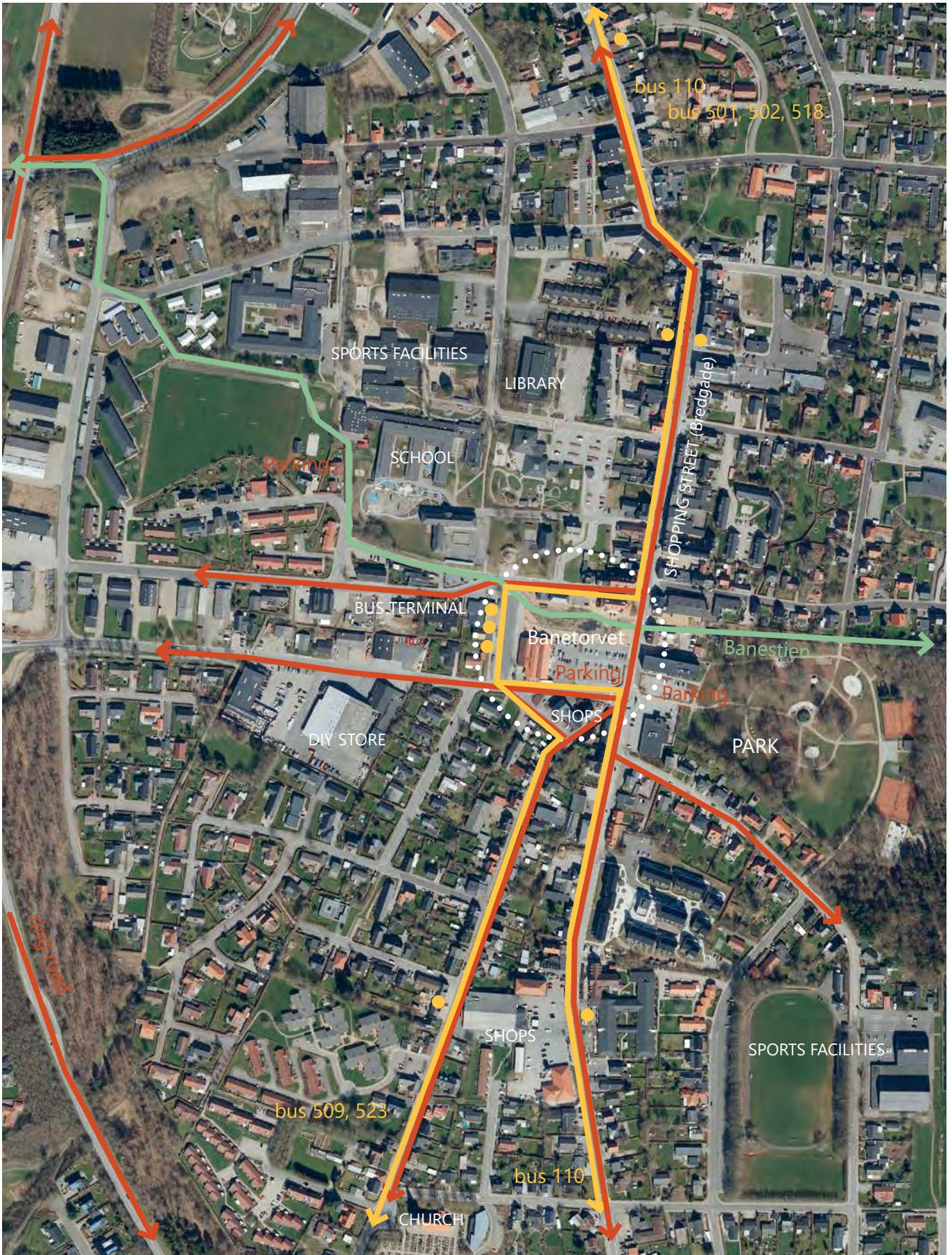
- 1 / Interconnection: location identity and everyday life
The centre of the town with a strong identity linked to everyday functions and mobility – coach station and routes for active travellers.
- 2 / Concentration of critical mass
Concentration of many of the (relatively small number of) local activities in one place – single point concentration
- 3 / Relevant urban space
Focus on facilities, history, identity, people-in-the-space – a place that interacts at person-centric level with different user groups, in contrast to the asphalted surface of the coach station
- 4 / Children and opportunities for play generate life and bring people together
Urban life engenders urban life – the presence children in the town square encourages others to meet in and frequent the space
- 5 / Natural flow routes integrated into the urban space design
A space people travel through – such that visits, activities and active mobility intertwine. The activities in the square are organised as “islands” between several natural and direct flow routes for active travellers





Assessment against 12 quality criteria
 – method according to Jan Gehl

PROTECTION	<p>- against traffic and accidents</p> <ul style="list-style-type: none"> closed traffic system for vulnerable, slow-paced road users mounds of earth and intersecting paths that may give rise to conflicts in the event of many people travelling at the same time (rare occasions) 	<p>- against criminality and violence</p> <ul style="list-style-type: none"> open environment with passers-by on their way to the shops restaurant facing the square local resident states that it isn't here that "yobs" loiter 	<p>- against unpleasant sensory impacts</p> <ul style="list-style-type: none"> appears "open", positioned closely to Bredgade the noise level is low, but it is not possible to withdraw in some places
COMFORT	<p>opportunity to walk/cycle</p> <ul style="list-style-type: none"> exclusively for walking and cycling recreational Banestien path linking Silkeborg and Horsens walking and cycling take place in all directions, along defined routes, as well as via informal paths 	<p>opportunity to stand/spend time</p> <ul style="list-style-type: none"> good opportunities to spend some time, to look at what is going on and to take a break the place promotes spending time outdoors and playing games, with good facilities and areas for brief stops nearby bus stop features a covered shelter 	<p>opportunity to sit</p> <ul style="list-style-type: none"> numerous benches positioned around the square good opportunities for parents to sit while keeping an eye on their children as they play
	<p>opportunity to see</p> <ul style="list-style-type: none"> good visibility even though it looks a little intricate at first glance small mounds may limit lines of sight varied local urban life – see others and be seen 	<p>opportunity to talk and listen</p> <ul style="list-style-type: none"> some noise from the road, but not intrusive parents in the restaurant can hear their children playing when they frequent the playground unsupervised 	<p>opportunity for leisure interests/activity</p> <ul style="list-style-type: none"> playground equipment encourages activity with a variety of installations to use or "hang out" by (for example, there are swings, hammocks and benches) the path encourages motion and active mobility according to one user, the sound of children playing and laughing attracts other people
AMENITY	<p>scale</p> <ul style="list-style-type: none"> generally small-scale, no buildings in the surrounding area are taller than two storeys however, there is a large car park that provides a large open surface as an extension to the area; as a result, Banetorvet does not have a natural boundary that defines its physical dimensions 	<p>opportunity to enjoy good weather</p> <ul style="list-style-type: none"> good opportunities to find a space in the sun hard to find a place in the shade shelter in the event of rain is provided by nearby private businesses (shops, restaurant) and in the bus shelter 	<p>aesthetic qualities/positive sensory impressions</p> <ul style="list-style-type: none"> an attractive, new place in warm colour tones sharply limiting edges in the surfacing, although these are largely ignored by people using the area and spending time outdoors architectural detail and cultural-historical value



The map shows a section of the town of Brødstrup with Banetorvet highlighted. Nearby functions and the overarching mobility system are marked (green = principal path for active travellers; yellow = bus routes; red = overarching motor vehicle infrastructure)



1:5000 in A4

Context analysis

Physical features of the area

- Small town (population: 7,000) located in the Municipality of Horsens, approx. 25 km from Horsens, Skanderborg and Silkeborg.
- Former station town whose centre is based around the heart of the old town.
- Features the majority of the urban functions that most people need on an everyday basis. The space is close to shops, restaurants, cafés, a school, daycare institutions, leisure activities and public transport options.
- The commercial centre of the town extends from the intersection between Bredgade and Naturstien path, to where Bredgade becomes Nørregade at a significant bend in the road. There is also a southern commercial area on Søndergade.
- Commerce is located in the peripheral areas, while residences and centre functions are centrally located.
- The area selected has undergone major remodelling, and the newly established Banetorvet has been the centre of Brædstrup since 2021.

Mobility system

- Banetorvet in Brædstrup is bisected by Banestien path (as a nature trail, also known as Bryrupstien). The path leads into the area around Banetorvet, but is not pronouncedly clear.
- Banetorvet itself is open only to vulnerable road users, who can make their way across the urban space as they please.
- Roads for motor traffic encircle the area, with the heaviest traffic south and east of the square.
- Banetorvet is connected to a local network of paths, even though school pupils can still be seen using Bredgade, which does not have cycle lanes.
- The former A-road between Horsens and Silkeborg – the main road through the town – has been replaced by a ring road.
- Five bus routes travel to and from the area, providing connections to destinations including Silkeborg, Horsens, Skanderborg and Østbirk.

Plans and policies

- The vision for Banetorvet was presented in the Development Plan for Brædstrup (2017), whose ambition was to reinforce the important cultural history of the area by, for instance, giving a new lease of life to old buildings such as the station house, post office and dairy.
- Banetorvet was to be the place where people meet, with space for engaging in activities, for enjoying quiet breaks and for visitors to the town. The buildings on the square were to underpin the status of the area, providing services such as coffee bars, eateries and the like.
- The budget for the Banetorvet project was DKK 2.5 million.
- The local plan is from 1996 and it proved possible to remodel the area within this framework.
- Banetorvet has been praised for aligning with the Municipality of Horsens' architectural policy, entitled Space for People and comprising the focus areas of Reinforce the whole of Horsens, Be a good neighbour and Build for everyday life.

Regulation

- Additional parking spaces have been established through the demolition of an old building, which opened up access to the square.
 - Banestien path has been re-created, following the original route as closely as possible.
 - Relatively many signs show the way to Banestien and indicate the shared path. There are also information signs, direction arrows, cycle path signs, etc.
-



1:1000 in A4

The map shows Banetorvet in Brædstrup. The various spaces linked together in the area, spatial characteristics, functions and facilities are marked.



Location analysis

Physical

- Elongated urban space which, on arrival, may seem hard to take in from one end to the other, but it soon becomes clear that the space is not overly large, which makes it simple and straightforward to negotiate.
- That said, the square can come across as “intricate”.
- The terrain is flat, but with small mounds and changes in level.
- The combination of the numerous small mounds, small trees, frames for the swings and lampposts does make it difficult to see through the area from one end to the other.
- The urban space features a variety of areas for visiting without a single, defined centre.
- There are small, newly planted trees and a few larger ones around the periphery of the area. The greenery grows wild in the culverts.
- Edges and sharp bends with pronounced borders between grass, tiles, steel profiles, asphalt and fall protection surfaces.
- The materials are exclusively in warm tones (reds/browns, natural wood and greenery)
- The nearby buildings are not new and no taller than two storeys.
- The square abuts the coach station, which was built at an earlier date.

Functions and facilities

- The urban space comprises cycle paths, pedestrian paths, a bus stop, playground and park, as well as parking areas for cars and bicycles.
- The local Rema 1000 grocery store seems to be the area’s main draw. The majority of people who travel through and across the area are going shopping.
- The playground on the square is equipped with swings (with music and lights), robust hammocks and an obstacle course.
- Features around the square include a restaurant with outdoor service, offices in the old station building and cultural-historical elements in the form of an old railway carriage with a section of the old railway preserved.
- There are plenty of opportunities to sit on benches, which encourage informal breaks, but there are no tables in this urban space.
- Public toilets are placed discreetly behind Rema 1000. It is likely that local knowledge is required to find them.
- Mixed illumination in the form of both tall, red-brown lampposts and low-level, functional illumination along the path.

Practices

- Everyone criss-crosses the square along established paths or forms their own trodden paths.
- Many people were observed on their way to and from shops, and a great many schoolchildren cross the area on their way home from the school located to the north-west of the square.
- Some of them stop for a while on the square, use the swings or eat an ice cream.
- Daycare groups on excursions come by and spend time at the playground.
- Situation: a class of older children was hanging out by the swings and hammocks during a free period, eating ice cream until it began to rain heavily, if briefly. In just a few minutes, the place was deserted and remained so for a long time after the rain stopped.

Sensory experience

- A tranquil place with a low volume of traffic on the road to the east of the area (Bredgade) and relatively few people during the day. However, there are no actual shields – neither physical nor noise-reducing – so the road nevertheless seems to be close by.
- Possible to hear birdsong.
- Tranquil everyday life in the middle of the day.
- Only limited opportunity for sheltered stops – little protection from rain, wind or sun.
- High level of activity when a school class or daycare group passes.
- New, inviting equipment.
- However, the waiting facilities at the bus stop are old and dilapidated, leaving the impression of a place of major contrasts – between the new square and the old traffic installations.

Social aspect

- Schoolchildren who arrive in a large group, go to the Rema grocery store, stop for a while, hang out by the swings or relax in the hammocks.
 - Families and friends (pensioners) walking together through the area, going to the restaurant.
 - Daycare groups coming by and playing for half an hour.
 - Grandparents with grandchildren spending time here on their way to or from another destination.
 - Most people pass through Banetorvet on the move, including many who accompany each other in pairs or in small groups.
-

Traffic analysis

Forms of mobility

- Walking: many pedestrians who walk freely between the paths, grass, mounds, culverts and fall protection surfaces. Several in small groups, including schoolchildren and young children taking walks accompanied by institution staff.
- Cycling: cyclists on the Banestien path, riding through the area and quickly leaving it again; likewise, cyclists on the small paths that criss-cross the square. Most of those passing through are travelling slowly.
- Bus: the close proximity to the bus stop is barely noticeable. Some bus passengers cross the square on their way to or from their bus, but the square is not perceived as a part of the waiting area.
- Other: some young people arrive at Rema 1000 on mopeds or scooters. A single electric scooter was observed in the area.
- Car: Brødstrup is traditionally a "car town", where many people choose to drive to the grocery store and park on Bredgade while they run errands in the local shops. A high level of activity is observed in the car park belonging to Rema 1000, with its entrance from/exit onto Vestervangen, while the parking area accessed from Bredgade is predominantly used for long-term parking.

Traffic numbers

- Two counts and registrations were performed, one at 11:20–11:50 and one at 13:30–14:00.
- The counts reveal how cyclists and pedestrians criss-cross the area.

Routes

- The motion pattern is generally "intricate", with the exception of a clear route between the school (north-west) and Rema 1000, where the established, asphalted path is used as the most direct route.
- As regards other significant routes, these generally lead to Rema 1000, with a few between the car park and the restaurant, which were particularly busy around noon.
- Pedestrians cross the square and will always find the shortest route.
- Trodden paths have been created in several places, where pedestrians have walked the same route sufficiently often.

Rhythms

- A peaceful place in the middle of the day during the observation period (weekday, 09:00–14:00).
 - People stroll calmly and freely through the area. People appear to have free time or are on a break.
 - A group from a crèche pass by – and says hello.
 - The oldest schoolchildren cross the square to go to Rema 1000.
 - Kindergarten children come by, stop and play for half an hour. The children run ahead of the staff; they are familiar with the playground and know precisely where to go.
 - The local residents have their own routes that criss-cross the area to suit their needs.
 - Meetings primarily occur in front of Rema 1000, where people spontaneously encounter acquaintances.
 - High concentration of people when an entire school class arrives at once.
 - An even mix of people in motion, people passing through and people simply visiting the area.
-



Benedikts Plads is a centrally located urban space and mobility hub in the city of Odense, with a light railway station and many other forms of mobility and urban functions.

Statements from users:

"It's just a place we pass through as we come and go."

Two young women, approx. 18 years old, waiting for a light railway train.

"It's great! There's no problem. Everything you need is here: shops, light railway, bus, parking spaces."

Woman, approx. 60 years old, waiting for a light railway train.

"A junction that works really well. Has a good location in the city."

Woman, approx. 55 years old, on foot.

"It's not all that charming or pleasing to look at. Apart from the big, old trees!"

Man, approx. 50 years old, waiting for a light railway train

"I often come here with the elderly people from Byhuset dementia centre."

Woman, approx. 55 years old, carer for four elderly people with dementia – sitting on the "forget-me-not bench"

established in: 2021

forms of mobility: light railway, bus, car, waling, cycling, scooter, electric scooter

location: Odense (population: 200,000 – 7,800 residents within a 500 metre radius of the square)

reasons-to-go: mobility hub, urban functions

Benedikts Plads (square) is a highly functional urban space where cars, bicycles, buses, the light railway, pedestrians and micro-mobility meet and co-exist on a well-organised surface.

The square has undergone thorough remodelling from a traffic junction with parking spaces to an urban space defined by the light railway and with reduced access for motorised traffic.

Many people in transit cross the square: by bicycle, on foot, by car, in buses or on the newly established light railway. The traffic is organised efficiently and safely; the different forms of mobility have dedicated areas and the place encourages relatively low speeds – bicycles have to perform turns, buses and light railway trains stop here, motorised traffic is regulated by traffic lights, and pedestrians can largely frequent the urban space without restrictions. At the same time, a more tranquil area has been established in the sun, farthest from the traffic, with elements of greenery.

With its central location (third stop from Odense Station), the square is on the periphery of the retail commerce zone in Odense; it is an active place with numerous urban functions and active ground floor operations in the surrounding buildings that feature a variety of ages, heights and styles.

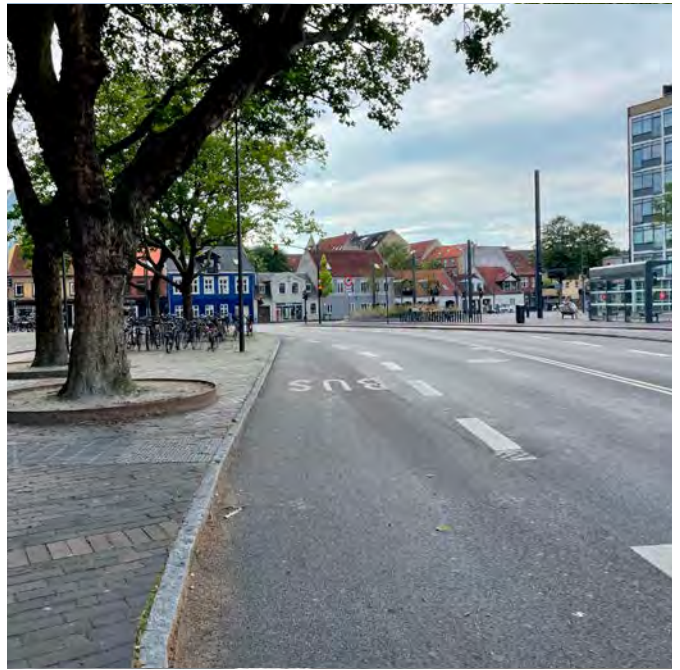
The establishment of the light railway has made this place a particularly high-class junction, and with five additional bus routes from the square, there are good public transport connections to the hinterland of Odense. The square is also clearly distinguished as being a “traffic machine” with numerous facilities for mobility functions.

The square presents as a robust space with a hard surface, partially softened by four old plane trees, a number of newly planted trees and two round gardens. The areas prioritised for distancing from traffic feature multiple places to sit, a drinking water fountain, shelter and a fast food kiosk.

The location serves as an intersection, where few people choose to spend any length of time, and where meetings between people largely involve persons travelling alone passing one another in transit or when waiting for a light railway train or a bus.

Learning points from Benedikts Plads, Odense

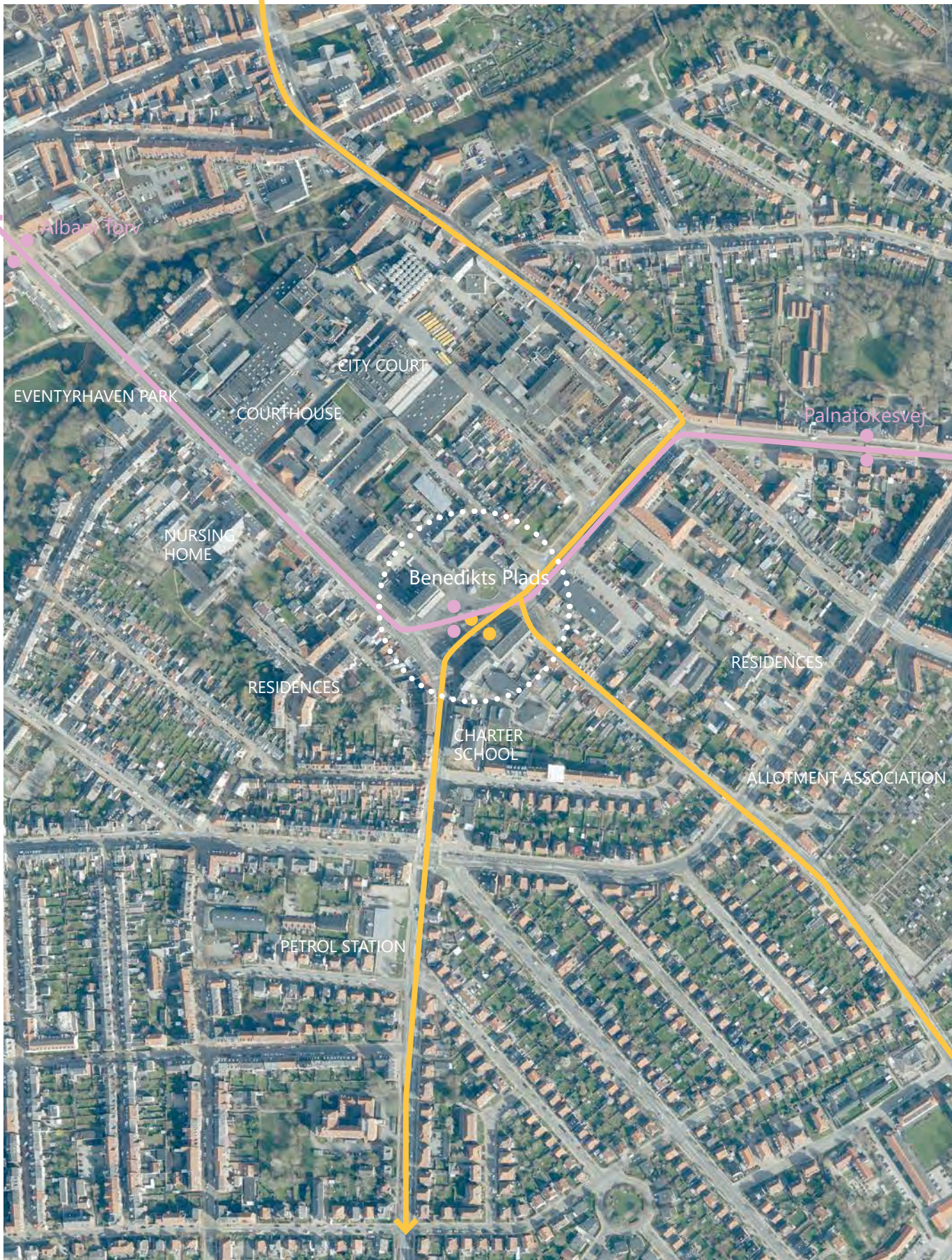
- 1 / Smoothly running traffic machine in a central location
Transfer point and place to pass through on foot, by bicycle or on a light railway train or a bus.
- 2 / Care for “people in the space”
Care, identity and quality in both design and execution: surfacing, plants, places to sit, shielding and elements of greenery.
- 3 / Stepping on the brake; the space for active travellers
Everyone and everything in motion – including cars and buses – generally moves at a slow speed. A speed-synchronisation adapted to active travellers.
- 4 / Dedicated space for active travellers
Dedicated areas have been established for pedestrians, cyclists and people waiting for different forms of transport, who can distance themselves from the motorised traffic.
- 5 / Active place with urban functions and good lines of sight
Straightforward urban space from façade to façade, with no “rear sides”, active ground floor functions with shops, etc. housing, more tranquil areas and options to stop for a while away from the traffic in the sunny corner to the north-east





Assessment against 12 quality criteria
– method according to Jan Gehl

PROTECTION	<p>- against traffic and accidents</p> <ul style="list-style-type: none"> physically separated forms of mobility: separate areas for vulnerable road users and people waiting for trains/buses generally slow speed: bicycles, light railway trains and motor vehicles travel at approximately the same pace good lines of sight – for unrestricted crossings 	<p>- against criminality and violence</p> <ul style="list-style-type: none"> open and active place with numerous passers-by people are visible here and can see others from afar in most of the area active functions in buildings with windows overlooking the space: “eyes on the street” shops, etc. open until late 	<p>- against unpleasant sensory impacts</p> <ul style="list-style-type: none"> covered waiting facilities at the light railway stop you are in the midst of the traffic in almost all areas it is possible to withdraw behind the round garden in the north, but traffic noise and the “traffic machine” are clearly noticeable in all areas
COMFORT	<p>opportunity to walk/cycle</p> <ul style="list-style-type: none"> good conditions: clearly marked cycle paths and spacious pedestrian areas people can accompany one another and talk en route – both on foot and by bicycle numerous opportunities for pedestrians, who can move relatively freely back and forth across the area cycle path passing through the round garden, for example 	<p>opportunity to stand/spend time</p> <ul style="list-style-type: none"> generally plenty of space to stand/stop for a while the light railway waiting facilities seem to be of appropriate size the area around the bus stop – especially for buses travelling south-west – is restricted: a narrow “island” between the road and the cycle path 	<p>opportunity to sit</p> <ul style="list-style-type: none"> waiting facilities at the light railway stop with sheltered benches plinths around the gardens provide plenty of space to sit a few other benches, including close to the south-facing façades in the most peaceful area behind the garden at the north end
	<p>opportunity to see</p> <ul style="list-style-type: none"> relatively straightforward place, but large and with a lot of activity the area is a single surface from façade to façade without major visual barriers – trees with tall trunks, low greenery otherwise, transparent shelters at the light railway stop relatively many people in motion – see others and be seen 	<p>opportunity to talk and listen</p> <ul style="list-style-type: none"> some traffic noise, but generally not overwhelming people accompany one another in small groups or two-by-two on bicycles, talking as they go 	<p>opportunity for leisure interests/activity</p> <ul style="list-style-type: none"> organisation and design promote active and efficient mobility no other actual activity options built in focus on passengers and waiting and some (brief) stays on benches
AMENITY	<p>scale</p> <ul style="list-style-type: none"> relatively large traffic space divided into smaller areas that are uncomplicated and provide a sense of person-centric scale the roadway is relatively narrow buildings of many different heights 	<p>opportunity to enjoy good weather</p> <ul style="list-style-type: none"> good opportunities to find a space in the sun or in the shade, on the plinths around the two round gardens some benches in the sun by the south-facing building façades in the peaceful part of the area 	<p>aesthetic qualities/positive sensory impressions</p> <ul style="list-style-type: none"> new, neatly ordered place quality materials (tile surfacing) with good attention to detail, tactility and colour alignment robust urban space with a hard surface and elements of greenery – four large, old plane trees to the south and two new, round gardens buildings of many different heights, styles, colours and materials – a slightly “messy” city the unifying character and uniformity of the space align with its surroundings



The map shows a section of Odense with Benedikts Plads highlighted. Nearby functions and the overarching mobility system are marked (yellow = bus routes; pink = light railway route)



1:5000 in A4

Context analysis

Physical features of the area

- A part of the centre of Odense, located 1.5 km south-east of Odense Central Station.
- Station hinterland: According to the Danish Civil Aviation and Railway Authority, there are almost 8,000 residents and more than 2,200 workplaces within 500 metres of Benedikts Plads. There are more than 23,500 residents and 14,500 workplaces within 1,000 metres.
- Positioned on the southern stretch of Albanigade.
- A central traffic junction, linking up functions and connections in the area.
- Up until the 1950s, the roads Hjallesøvej, Albanigade and Benediktsgade formed a triangle where they met. This was known locally as Trekanten (The Triangle).
- Originally housed one of the first public waterworks in Denmark, but when the water tower was demolished in the 1950s, the location was remodelled as a square named Benedikts Plads.
- Remodelled again in 2022 from a traffic junction with parking spaces to an attractive urban space through the establishment of the new light railway station as the nucleus.
- The square has been expanded now that the hostel garden has been incorporated.
- The existing fast food kiosk has been moved approx. 30 metres to the east to accommodate the light railway station.
- Surrounded by housing and various forms of commerce: supermarkets, fast food and take-away eateries, pharmacist, cafés and some small specialist shops.
- The square is located on the periphery of the Central Odense retail zone.

Mobility system

- Traffic junction, where different forms of mobility meet and intersect in changes and transits
- A stop on the 14 km stretch of light railway that features a total of 26 stations.
- The light railway has taken over the central section of Benedikts Plads, which was previously used for parking.
- The third stop after Odense Central Station en route to Hjallesø Station.
- During the day on weekdays, trains stop here every 7.5 minutes.
- There is a defined cycle route through the square, while cyclists heading south are led along the southern side of the light railway platform.
- Ten light railway stations, including Benedikts Plads, feature transfers to bus routes.
- Served by bus routes 35, 110, 111, 161 and 162, providing connections to destinations including Hunderup, Nr. Broby, Over Holluf, Skt. Klemens, Vollsmose and Seden.

Plans and policies

- The remodelling of Benedikts Plads is a municipal purchase for the light railway system and a tangible example of how the light railway project has contributed to the development and evolution of Odense.

- Following five years of remodelling and the establishment of the light railway, Benedikts Plads was officially inaugurated in October 2021.
- The layout complies with the design manual for Odense, including the guidelines for the city's street surface, furnishings, illumination and greenery.
- Multiple forms of corridor have been used in the light railway project, including the type seen at Benedikts Plads, where the entire urban space from façade to façade has been remodelled.
- The intention behind the establishment of the light railway was to link together as many destinations as possible in a relatively diffuse urban structure.
- Urban development and urban concentration are under way around the light railway, and the possibility of adding extra stretches is being examined.

Regulation

- Comprehensive remodelling of the square from a traffic junction with parking spaces to an urban space defined by the light railway and with reduced access for motorised traffic.
 - Numerous signs indicating the start/end of the pedestrian-only zone, rights of way, pedestrian crossings, parking regulations, directions for cyclists and information relating to the light railway (symbols and traffic signs).
 - The light railway design process accorded equal weight to technical issues and urban integration, which has translated into dedicated focus on how the light railway was integrated into the city and adapted to the specific sites.
 - Requirements for the replanting of trees in connection with the light railway have meant appreciable focus on preserving existing trees.
 - With a requirement for bicycle parking areas within 30 metres of the light railway stops, considerable emphasis has been placed on the link between cycling and public transport.
-



1:1000 in A4

The map shows Benedikts Plads in Odense. The various spaces linked together in the area, spatial characteristics, functions and facilities are marked.



Location analysis

Physical

- Large, rectangular urban space, approx. 65 x 95 metres.
- The square presents as an open area, with a large, robust surface bisected by a traffic space with clearly marked areas for a road (Benediktsgade), the light railway and a cycle path.
- In order to accommodate traffic, the surface has been laid out as a tripartite area that allows more space for shielded tranquillity and spending time in the south-facing section to the north-east. The area is also interrupted by a large traffic island in the middle where people can stop briefly, and it is flanked by a peripheral zone with active ground floor functions to the south.
- Two round planted areas ("round gardens") – a large one to the north and a smaller one to the south-west – surrounded by plinths create visual points of focus in the otherwise hard-surfaced area, providing soft, green elements and places to stop for a while.
- A particular feature of the gardens is that they are round; as such, they have no "rear sides" and are open in all directions.
- The gardens contain a variety of plants, flowers and a sculpture.
- A cycle path runs through the north garden, providing a connection from Benediktsgade to the north.
- The light railway platforms are located centrally in the square, between the space for vulnerable road users and the tranquil area in the north section, and the cars/buses travelling on Benediktsgade.
- Peripheral buildings on all sides, which surround the area and clearly indicate its limits.
- The buildings present a wide variety of heights, styles, colours and materials.
- Four large, old plane trees border the buildings to the south, and the area contains a number of other, newly planted small trees.
- A paved surface featuring minor differences in colour, laid out in a simple, distinctive patterns, unifies the area across the railway section and the road. The paving that frames the light railway track is of a redder shade.
- Guidelines and tactile tiles in contrast colours have also been used.
- In addition, there are road markings, concrete plinths and dark grey posts.
- The lampposts have been kept relatively low (below 4 metres, approx.).
- The illumination is soft and principally positioned such that it underpins the spatial division of the area.

Functions and facilities

- The area encompasses numerous urban functions at ground floor level in the buildings: grocery shops, other shops and service functions, as well as a café, pizzeria and bar.
- In addition, there is the Byhuset dementia centre (municipal activity building) and many residences.
- There is a small fast food kiosk on the square itself.
- The light railway stop is centrally located in the square, with platforms and waiting facilities including benches, a shelter, information signs and ticket machines.
- There is a bus stop as a direct extension of the light railway stop, with (limited) space to wait, but no shelter or benches.
- There are bicycle parking stands in the immediate vicinity of the light railway stop and in the south section of the square. There is an Odense Cykelby bicycle service station with an air hose.
- Signs indicate the start/end of the pedestrian-only zone, rights of way, pedestrian crossings, parking regulations, directions for cyclists and information relating to the light railway (symbols and traffic signs)
- In addition to the benches at the light railway stop, there are plenty of places to sit on other benches and the plinths.
- There are toilet facilities near the fast food kiosk, and some cafés and eateries make their toilets available.

- There is a public drinking water fountain and a number of rubbish bins.
- Opportunity to spend time in under cover (shielded from rain, wind and sun) in the shelters at the light railway station.

Practices

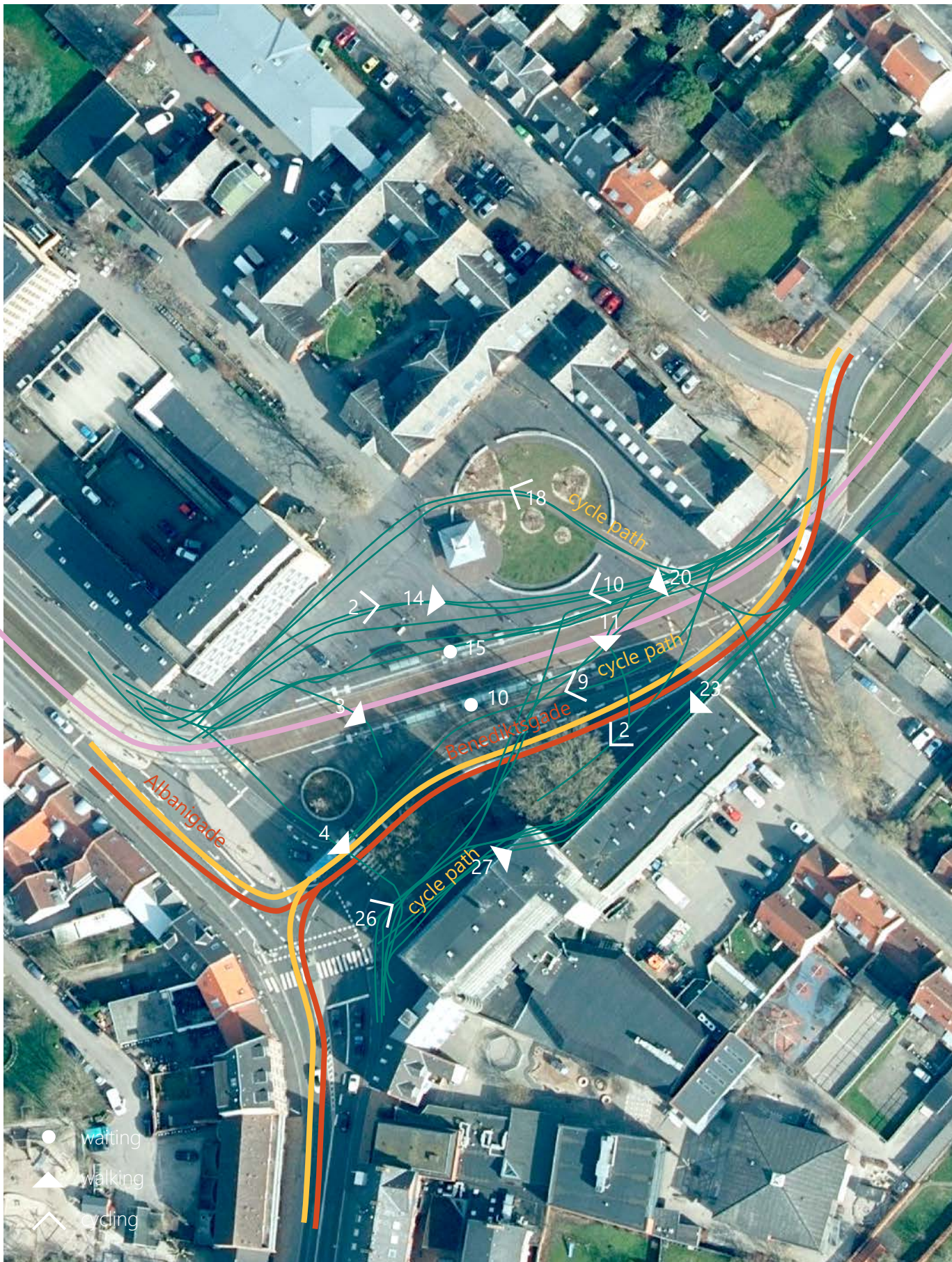
- The vast majority of the people here are in motion, heading for a specific destination.
- The speed for all forms of mobility is generally relatively slow.
- There are many active travellers who criss-cross the square.
- The majority of the people observed comply with the organised motion patterns on the square, although a number of pedestrians and cyclists cross the road space where they please (i.e. not only on the designated crossing). Some cyclists ride slowly outside the cycle paths.
- There are many people who board and alight from the light railways, stopping briefly on the platforms; some sit, others stand. There are also bus passengers who are waiting for, boarding and alighting from the buses.
- Many people journey and wait on their own; many are focused on their mobile phones.
- Only a few people spend time in the square unless they are waiting for the light railway trains/buses; some stop for a while near the fast food kiosk, evidently waiting for their orders, others on the benches along the north façade. A few other practices were observed: citizens associated with the Byhuset dementia centre sit for a while on a bench; two Jehova's witnesses position themselves by the small planted area; a young man walks his dog briefly in the round garden to the north.
- During the observations in the afternoon of 17 August 2023, the car park was full and around a third of the 100 or so bicycle parking spaces were occupied.

Sensory experience

- The traffic is dominant in the majority of the square, to the least extent in the north-eastern section next to and behind the large round garden.
- There is a fair amount of road noise in the square. Cars can often be heard accelerating away from the traffic lights.
- It is a place full of life, with many people passing through over the course of a day; there is something to look at, and it feels like being part of the (big) city pulse.
- On account of the activity at the location, including the numerous residences in the surrounding buildings and the active functions at ground-floor level, there will be plenty of "eyes on the street", which should contribute to a sense of security on the square.
- The green elements stand out clearly when you are close to the round gardens and the large trees, but the general impression is of a hard-surfaced and efficient traffic space.

Social aspect

- Meetings seem to take place primarily in transit: Some people accompany each other, two by two or in small groups – of young people for example – mostly on foot, but some while waiting. There are also a few people who cycle together.
- Pedestrians walking together talk as they go.
- It is a place where you see others and are seen, without making contact.
- A few young people accompany each other in groups, but otherwise people journey alone.
- Citizens from the Byhuset dementia centre sit for a while on a bench.
- The majority of the people on the square are of working age, and an elderly couple out shopping was also observed.
- No children (or very, very few) were observed during the period.



The map shows Benedikts Plads in Odense. The different forms of mobility and observed routes for active travellers and other forms of mobility are marked (green = active travellers; pink = light railway; yellow = bus; red = motor vehicles), along with a simple traffic count of active travellers and people waiting at the light railway stops.



1:1000 in A4

Traffic analysis

Forms of mobility

- Walking: relatively many pedestrians who pass through the square on their way to the shops, for example, or to and from the light railway and bus stops. Some – including young people and a few children – walk two-by-two or in small groups.
- Cycling: relatively many cyclists on the cycle paths, riding through the square and rapidly leaving it again; also some cyclists riding slowly outside the cycle paths. Cycle paths marked with a different type of surface and kerb stones run north from Benediktsgade through the round garden, alongside the carriageway, and beneath the large plane trees that line the building façades to the south. A few cyclists take their bicycles with them on the light railway trains.
- Bus: the buses stop in the centre of the traffic space, between the route of the light railway and the carriageway, as well as on the south side of the carriageway. At first glance, there seems to be a physical and visual connection between the light railway platforms and the bus stops, but the transparent shelters are intended solely for the light railway, not for the buses. Only a small area for waiting, boarding and alighting, especially with regard to the buses travelling in a south-westerly direction; only a narrow traffic island between the cycle path and the carriageway. There is more space, with a bench, in the other direction.
- Light railway: the route of the light railway cuts transversely through the square, with its platforms as the central element. There are waiting facilities here, along with information and ticketing options. From Benedikts Plads, the light railway turns to the north along Albanigade (in the direction of Odense Central Station/Tarup Center). In the other direction, it continues along Benediktsgade towards Hjalles Station. The station itself consists of two tracks, each with an adjacent platform. The interior of the square is reserved exclusively for vulnerable road users, with the exception of cars making use of the six short-term parking spaces.
- Car: Cars drive along Benediktsgade, which cuts transversely through the square, clearly separated from the cycle paths, light railway, bus lay-bys and other spaces by different types of surfacing, kerb stones and road markings. Most of the cars drive relatively slowly. There are parking spaces for six cars in a designated area in the north-western section of the square. The entire south-westerly perimeter of the square is marked by Albanigade, a large, broad traffic space with a carriageway and cycle paths.
- Other: a few electric scooters were observed on the square.

Traffic numbers

- A count of active travellers, with registration of their routes, was conducted from 15:50 to 16:20 on 17 August. During this period, light railway trains arrived four times from each direction, i.e. eight times in total.
- The counts reveal how cyclists and pedestrians move through the area.
- ADT on Albanigade (October 2022) is 5,993.
- ADT on Benediktsgade in 2014 was 7,611. This was before the square was remodelled, so it is assumed that the traffic numbers are lower today.
- There are as yet no figures for the number of people boarding the light railway at individual station level.

Routes

- Three cycle paths cross the square, and cyclists primarily use these. Some cyclists do, however, cycle outside the marked paths.
- Two of the three cycle paths have been separated from the carriageway for motor vehicles: one in the north section, passing through the round garden, and one in the south section, beneath the plane trees alongside the building façades.
- The small space created to the north is used by a large number of pedestrians who walk where they please, while pedestrians also cross the light railway tracks, cycle paths and carriageway, largely outside the designated pedestrian crossing to the west.
- A primary pedestrian route runs via the pavement alongside the buildings to the south.

Rhythms

- At the observation times, the square does not appear to be busy or crowded. The flow is calm; a steady stream of motor vehicles, cyclists and pedestrians, with plenty of space for all types of travel in general. The intensity increases slightly around the arrival/ departure times of the light railway trains.
 - Several people walk calmly and freely through the square. Some check the light railways signs and then stroll around for a while.
 - The people passing by seem to be in transit and appear to be used to cycling or walking that particular route.
 - On the first observation day when the light railway was not running, a number of people moved around listlessly once they discovered that the light railway train would not be coming – “what do I do now?”
-



Jomfru Ane Parken in Aalborg is a centrally located urban space with opportunities for visits and activity on the edge of the Limfjord. It is a place where active travellers can make their way between the historical city centre and the water, and along the shore of the fjord from east to west.

Statements from users:

"It's better to cycle here because it's more open. But I think it's too dark here in the evening."

Girl, approx. 15 years old, wheeling her bicycle.

"I generally come here when the weather is fine. Otherwise the wind is too strong."

Woman, approx. 50 years old, out for a walk.

"It has a cool urban vibe."

Boy, approx. 18 years old, playing basketball on the nearby court.

"It's fantastic to be so close to the fjord and simply to stroll alongside it."

Man, approx. 60 years old, out for a walk.

"A great deal has happened since I was here 20 years ago. All of it positive."

Man, approx. 70 years old, on a day-trip to Aalborg with his wife.

established in: 2008–2009, designed by C.F. Møller
 forms of mobility: walking, cycling, electric scooter
 location: Centre of Aalborg (17,600 residents in central Aalborg)
 reasons-to-go: visits, recreation, through traffic

The area around Jomfru Ane Parken, located on the distinctive harbour front in Aalborg, is a popular destination, used on a daily basis by many pedestrians and cyclists for mobility, recreation, visits and various forms of play.

The harbour front has undergone a major remodelling process, where the emphasis was on transforming Aalborg from an industrial city, where industrial operations spread along the harbour fronts and into the central areas of the city, into a modern, knowledge- and experience-based city.

The harbour front is a central element of the city today, with a range of attractive urban spaces for visits, activities and experiences. The urban development of recent years along the prioritised growth axis has produced a range of new connections and lines of movement, and today, the area around Jomfru Ane Parken presents as an integrated extension of Central Aalborg.

Here, the intersection between city and water is clearly highlighted by the long, straight quayside – a promenade that simultaneously establishes and underpins the connections between the city and the water. The promenade alongside the fjord is distinguished by its form and materials, which make reference to the raw and rustic industrial history of the harbour, contrasting clearly with the urban space of the inner city which is of a different age and identity.

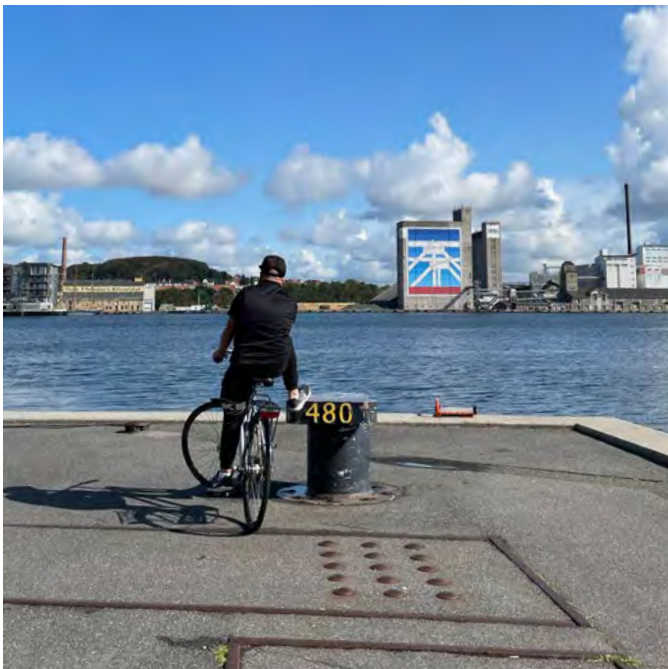
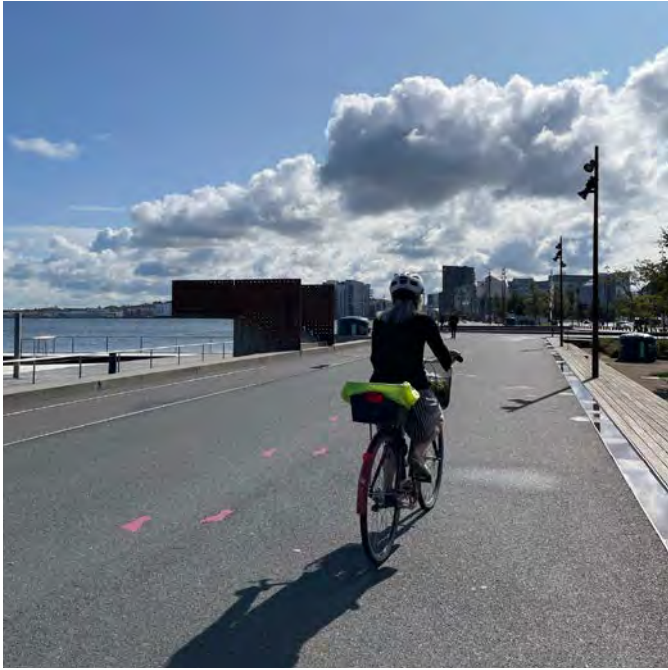
Around the recessed, green city garden between Toldbygningen (the old customs building) and the harbour swimming area, a large flow of active travellers was observed mingling with each other, the majority at a slow pace.

Some are in transit from one place to another, but just as many move at a slower speed. Some stop briefly and make their way past the garden, while others move swiftly past, because this is not just an attractive area – it is a quick and direct route for cyclists and pedestrians.

On an ordinary weekday, there are many encounters between people, primarily in transit – people's paths cross. At other times, the area is visited by many people taking a break or participating in activities, it is also used for major events, where an urban "throng of people" can be observed in precisely this place.

Learning points Jomfru Ane Parken, Aalborg

- 1 / Amenity value alongside the water, away from the traffic
 A delightful place to walk and cycle, without worries – closed to motorised traffic, the scent of salt water and *The wind blows briskly over the waters of the Limfjord*
- 2 / Multifunctional, rich in experiences
 A multifunctional, coherent area with activity options and spacious areas side by side – encourages a variety of uses, experiences and meetings
- 3 / "For everyday use and special events"
 Designed to serve as a functional space, a recreational space, a place to meet and a mobility space for calm everyday rhythms + as a designated setting for large and small events in the city.
- 4 / Accessibility and connections – a well-functioning and attractive route in the city
 Clear physical connection between the east and west of the city for active travellers – both as a transport route and for recreation
- 5 / An extension of the city centre
 Opportunities for visits and activities attract people and draw the public to the urban intensity





Assessment against 12 quality criteria
 – method according to Jan Gehl

PROTECTION	<ul style="list-style-type: none"> - against traffic and accidents <ul style="list-style-type: none"> closed traffic system for vulnerable, slow-paced road users good visibility conditions potential risk of conflicts between fitness cyclists moving at high speeds and pedestrians 	<ul style="list-style-type: none"> - against criminality and violence <ul style="list-style-type: none"> open, centrally located environment with numerous passers-by can appear dark and deserted after night falls 	<ul style="list-style-type: none"> - against unpleasant sensory impacts <ul style="list-style-type: none"> traffic noise from nearby road half-height wall provides a partial shield against the traffic an extremely open environment that will appear unwelcoming in the event of rain and wind – no covered areas however, the garden is recessed, providing some protection against the wind
COMFORT	<p>opportunity to walk/cycle</p> <ul style="list-style-type: none"> shared spacious areas for walking and cycling recreational trips as well as a fast, efficient route for commuting clear, defined route between east and west 	<p>opportunity to stand/spend time</p> <ul style="list-style-type: none"> good opportunities to stop for a while, to enjoy the view and to take a break the place encourages visits and play with its inviting open spaces; for example, the large, shielded and recessed lawn with flower beds and trees 	<p>opportunity to sit</p> <ul style="list-style-type: none"> numerous benches and plinths provide plenty of opportunities to take a break large stretch of grass for visiting in the summer months opportunities to sit facing in multiple directions – plenty of opportunities to sit facing the fjord, the sun, the urban life ...
	<p>opportunity to see</p> <ul style="list-style-type: none"> an uncomplicated place with good visibility in the elongated urban space many people travel along this stretch of the city – see others and be seen 	<p>opportunity to talk and listen</p> <ul style="list-style-type: none"> a good place to talk and to listen – you can withdraw to tranquil subsidiary zones some road noise, but not overly intrusive people make their way in groups and talk to each other distanced from the road – and shielded from the wind off the fjord in places 	<p>opportunity for leisure interests/activity</p> <ul style="list-style-type: none"> a well-visited stretch of the city that promotes recreational walks and active mobility games on the large area, in the park and on the different levels games courts/pitches and harbour swimming area
AMENITY	<p>scale</p> <ul style="list-style-type: none"> the harbour area is a large, elongated and open space – with even wider vistas out towards the fjord division and furnishing of the area into a promenade, a harbour swimming area in the fjord, a recessed garden, passages and games courts bring the area down to person-centric scale, with plants, surfaces to touch, illumination, etc. 	<p>opportunity to enjoy good weather</p> <ul style="list-style-type: none"> good opportunities to find a space in the sun however, not possible to face the sun and enjoy the fjord view at the same time hard to find a place in the shade not possible to find shelter when it rains, and hard to find shelter from the wind 	<p>aesthetic qualities/positive sensory impressions</p> <ul style="list-style-type: none"> an attractive, well-kept garden with a diverse collection of flowers and other plants neat, clean and well looked-after a stark contrast to the original industrial harbour, in spite of designed references to the industrial history in the choice of materials, for instance



1:5000 in A4

The map shows a section of the Centre of Aalborg, with Jomfru Ane Parken marked. Nearby functions and the overarching mobility system are marked (green = principal path for active travellers; yellow = bus routes; red = overarching motor vehicle infrastructure)



Context analysis

Physical features of the area

- Big city centre (17,600 residents in central Aalborg).
- Remodelled harbour front with new urban spaces directly adjacent to the city centre.
- The area around Jomfru Ane Parken is part of a long harbour promenade with recreational, public-oriented functions.
- Uninterrupted harbour promenade with good visual and functional connections between the city and Jomfru Ane Parken across Strandvejen.
- A former industrial harbour where industrial operations spread along the harbour fronts and into the central areas of the city.
- Located extremely close to Aalborg's numerous urban functions. The location is close to shops, restaurants, cafés, a school, daycare institutions, leisure activities and public transport options.
- The selected area around the two eastern city gardens was developed in 2008–09.

Mobility system

- A part of the city centre network for active mobility.
- Located close to bus stops.
- Bordered by Strandvejen, which is a heavily used traffic artery, although a cycle path and promenade-like pavement separate the flow of traffic from spaces where people can stop for while.
- The north side of the park, towards the fjord, is reserved exclusively for pedestrians, cyclists and people using other light and active forms of transport.
- Large urban area, where vulnerable road users can move freely.
- People move between and among one another, most travelling at a relatively low speed.
- The nearest bus stops are on Nytorv and Jomfru Ane Gade, served by city bus routes S1 and S2, and by routes 1 and 2.

Plans and policies

- A part of the transformation of Aalborg from industrial city into a modern knowledge city.
- Harbour remodelled over a period of years.
- Included as a part of Aalborg's principal approach of concentrating urban development around a defined growth axis, which runs as a ribbon from the airport in the north-west, through the harbour fronts of Nørresundby and Aalborg, Aalborg city centre, the remodelling areas near Godsbanen, Eternitten, and then on to Gigantium, Aalborg University, the new University Hospital and Aalborg harbour to the east.
- The local plan for the harbour front is focused on retaining and improving the recreational and public-oriented functions.
- The local plan likewise prioritises areas to visit for a while rather than parking areas.
- The 2019 plan strategy continues the key approaches from previous plan strategies, where growth is not a goal in and of itself, but is rather to be used to create quality for people and the environment.
- The 2019 plan strategy features an extraordinary focus on securing high-quality urban development.
- Supported by the 2025 City Centre Strategy, which contains a goal of and initiatives for establishing more and better "experience routes" as a base for an extended and improved pedestrian network and flow in the city.

Regulation

- A former harbour area distinguished by heavy traffic and parking has been transformed into an area completely free from motorised traffic. Instead, priority has been accorded to pedestrians and, to some extent, cyclists.
 - A four-lane road alongside the fjord has been reduced to two lanes, with a traffic island as support for pedestrians travelling between the city centre and the harbour front.
 - A small number of signs regulate behaviour at the location, but bollards and changing levels are used to encourage the intended behaviour.
-



The map shows Jomfru Ane Parken in Aalborg. The various spaces linked together in the area, spatial characteristics, functions and facilities are marked.



Location analysis

Physical

- The harbour front serves as a recreational space and a soft connection alongside the water
- In itself, the harbour front is a single, long urban space divided up into smaller, separate areas
- The terrain is flat, but the park is recessed such that it is clearly delimited from the road, the cycle path and the promenade
- Clear spatial delimitation between park, cycle path and road area in the form of a half-height wall
- Towards the harbour side, the park opens up invitingly with a broad flight of low steps
- A small steel profile separates flower beds, flowers and trees from the pedestrian area, surfaced with brown sand and gravel
- The old crane rails along the harbour front have been preserved as a reference to the identity and history of the location
- The materials are primarily untreated and rustic in the form of asphalt, concrete and steel, softened by steps, benches, a wooden pergola, plants and greenery
- A completely open surface towards the Limfjord on one side, distanced from the road and city centre on the other side

Functions and facilities

- The harbour front functions as an active area for cyclists, pedestrians and playing children during the day.
- Comprises a wide range of opportunities for activities and experiences.
- The park includes a grassy area for visits and dog walking, benches, numerous large rubbish bins and a drinking water fountain
- Other facilities in the area include toilets, a vantage point and a harbour swimming area including changing rooms (closed)
- Immediately adjacent are an area for ball games, a playground, a stretch of terrain sloping down toward the fjord, a restaurant with outdoor service and, further to the east, the castle and a museum (Utzon Center)
- There are numerous, good places to sit on benches, plinths and the quayside, encouraging to people to stop for a while and enjoy the view.
- Illumination in the form of guiding lights every 10 metres along the edge of the quay, promenade illumination – spotlights on approx. 6-metre tall posts – bollard lighting on the boardwalk between Strandvejen and the promenade, functional and scenographic lights in the activity areas. Illuminated trees provide atmospheric lighting.

Practices

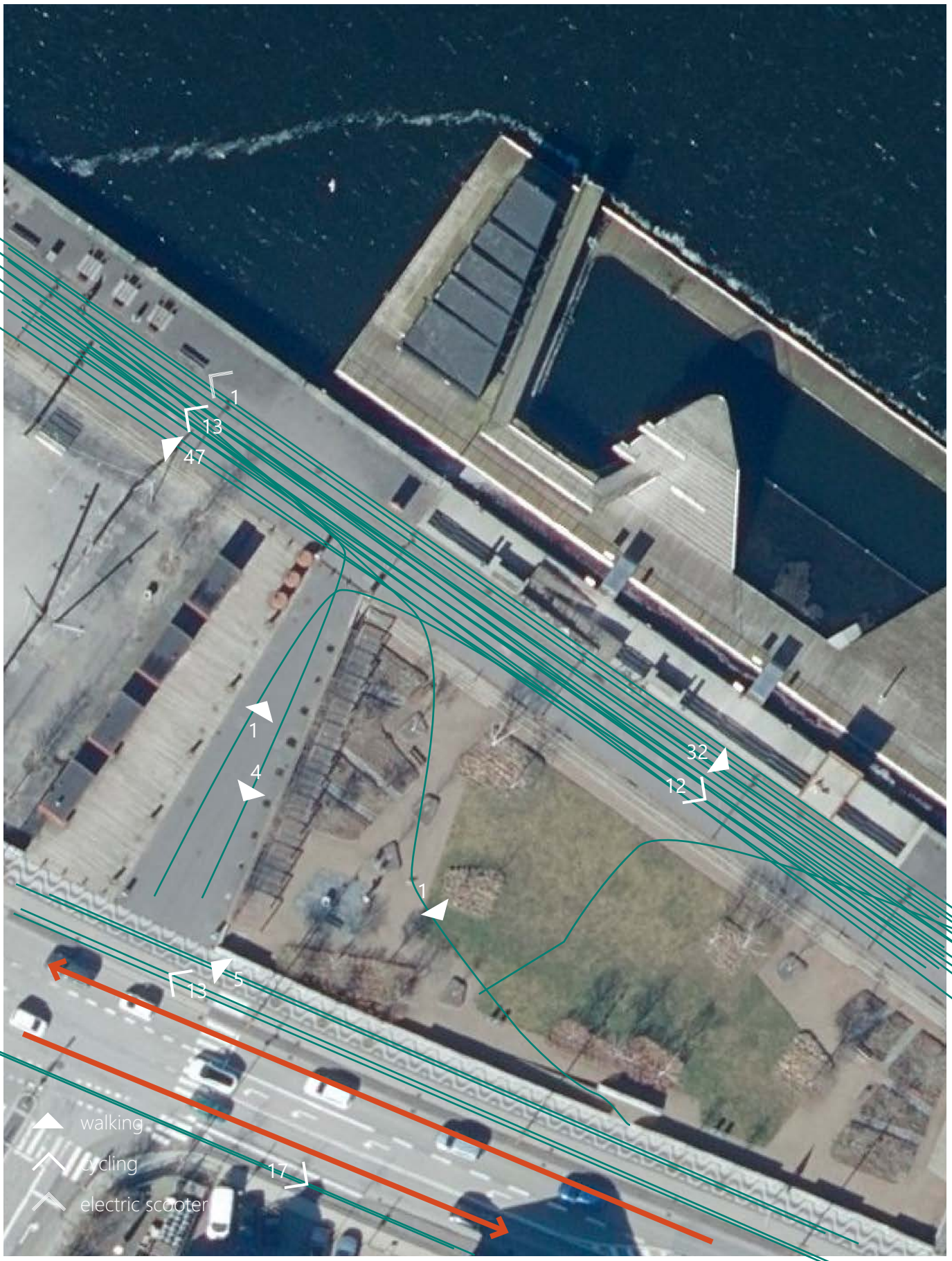
- People pass through the area at a gentle pace, some stop briefly or for longer periods
- This is a place for people to hang out, play games, swim and eat ice cream – depending on the weather
- Some people seem to be immersed in their own thoughts or enjoying the view
- Some people meet here to socialise or to engage in recreational activities together
- Some daycare groups also pass by
- Equal distribution between passers-by in transit and people enjoying recreational walks

Sensory experience

- The park is principally green with a large area of lawn, but it also features clearly delimited beds, with flowers and trees that bring a host of colours and life to the raw, urban harbour front
- Peaceful everyday life on the terms of active travellers on one side of the park, contrasting with Strandvejen and the routes towards the many attractions of the city centre on the other
- The park functions as a small “pocket”, but is subject to traffic noise in the form of accelerating vehicles and machines operating in the city
- An apparently lively location, with many people passing through over the course of a day
- Sensitive to weather conditions on account of its exposed location next to the Limfjord

Social aspect

- People are out walking
 - They accompany one another, two by two or in groups, talking as they go
 - Talk together, stroll, stop for a while and admire the view
 - Passers-by moving fast, concentrating solely on reaching their next destination
 - Appreciable difference between the number of visitors on sunny and rainy days
-



The map shows Jomfru Ane Parken in Aalborg. The different forms of mobility and observed routes for active travellers are marked, along with a simple traffic count of these travellers.

1:500 in A4



Traffic analysis

Forms of mobility

- Walking: a large number of pedestrians, strolling along the promenade for recreation, or passing at a brisk pace on their way to their next destination on the other side of the city. Many people accompany one another, but a significant proportion walk alone and admire the view.
- Cycling: a relatively large proportion of cyclists riding along the harbour front, apparently in transit. Some are not in much of a hurry and take a break on one of the north-facing benches, where they can admire the broad view out over the Limfjord. A number of cyclists use the dedicated cycle paths alongside Strandvejen.
- Other forms of active mobility: some passers-by are riding electric scooters. Some scooters were registered as having been parked, ready to use again at the entrance from Ved Stranden.
- Bus: not so closely linked to Jomfru Ane Parken that they have an impact on the forms of mobility observed at the location.
- Car: cars drive along Strandvejen, which runs parallel to the harbour front and thus exerts no direct influence on the location, apart from the noise impact and situations where vulnerable road users cross the road to visit Jomfru Ane Parken or to walk along the harbour front.

Traffic numbers

- A count and registration were conducted between 10:45 and 11:15.
- The count illustrates how the cyclists and pedestrians almost exclusively travel along the harbour front heading east or west during this period.
- Only a few occasions where a couple of pedestrians pass through the park.
- ADT on Strandvejen was approximately 8,000 in 2022, which is a significant figure, but greatly reduced since the remodelling of the harbour front – the ADT in 2007 was 13,000.
- In addition, a flow observation and analysis were carried out using the GoodVision tool – see pages 56–57.

Routes

- The harbour front provides a fast, efficient route between the east and west sections of the city.
- In addition to being a fast route without traffic lights and interactions with other road users, the route along the harbour front is distinguished by its peerless amenity value
- The motion pattern for a large number of people is a clear flow that follows the harbour front in an easterly or westerly direction
- As an alternative, some active travellers were observed making their way alongside Strandvejen
- Entrance to the park from the north, south and east. From the west, the park is shielded by a wooden pergola.

Rhythms

- Undisturbed by motorised traffic, allowing free movement on the premises of the active travellers
 - Equal distribution of passers-by; some are in transit (en route to a destination at a brisk pace), while others are enjoying a recreational sojourn: a gentle walk or a jog alongside the water
 - People were observed here throughout the period in the middle of the day (weekday, 09:00–13:00).
 - A group from a crèche passes by. They talk to each other and point towards the horizon.
 - An elderly couple stroll by. Sit for a while on the plinth.
 - A young couple go up to the vantage point and admire the view.
 - An elderly woman sits on a bench in the park.
 - Meetings occur when people cross paths or encounter others who have chosen the same route for their everyday errands or a gentle stroll.
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Cyclists in the area in the period 07:58–16:40 on 28 August tracked with GoodVision. A total of approx. 350 cyclists in each direction.



Pedestrians in the area in the period 07:58–16:40 on 28 August tracked with GoodVision. A total of approx. 750 pedestrians in each direction.



Movement patterns for the people who cross the steps between the promenade and the city garden, established using GoodVision.

Method supplement: GoodVision – analysis tool

In the case of Jomfru Ane Parken, a supplementary analysis was conducted using the GoodVision tool.

The GoodVision analyses of the urban space are used to create a visualisable data basis that provides a simple and straightforward overview of the flows and movement patterns that the location creates and is created by.

The counts quantify the observations of behaviour, while heat maps assist in identifying the areas that attract people and encourage them to stay for a while. Human travel behaviour in urban spaces is complex, but this complexity can be visualised such that the observed behaviour can provide a base for designing better urban spaces on a human scale.

In the context of political and citizen-centric communication, GoodVision visualisations are also useful in creating the images that are necessary to tell the travellers' stories and to develop visions for appropriate mobility hubs in the future.

About the tool: new opportunities for detection

GoodVision software makes it possible to conduct a range of advanced traffic and mobility analyses based on data collected through video recordings. The use of AI allows each traveller in the area to be tracked and allocated a direction vector. The software is also able to tell the difference between travellers and thus to categorise them as cars, pedestrians or cyclists, for example. The output is anonymised, with each traveller being represented exclusively by a line.

The tool makes it possible, for example, to collect data about movement patterns, where people stop and for how long, number of passers-by and speed. This information can then be used to analyse traffic patterns and mobility behaviour.

The area covered can be large or small, depending on the location and elevation of the camera, and the camera can also be focused on specific conditions.

Flow and uniformity in Jomfru Ane Parken

In the case of Jomfru Ane Parken, GoodVision was utilised on the basis of video recordings made between 07:58 and 16:40 on 28 August 2023.

Based on the output of all direction vectors for the cyclists and pedestrians registered in the area during this period, it is clear that both pedestrians and cyclists use the entire asphalted area for movement.

No general correlations were identified with regard to which side pedestrians use when they are heading east or west. Nor was any tendency to stop for any length of time registered

on the asphalted area, which indicates that the area primarily facilitates a flow of movement.

Counts support physical observation

In the same way as the physical observation of the location, the counts reveal a clear stream of active travellers along the quayside.

The counts for the entire period registered reveal an almost equal distribution between east and west, with around 750 pedestrians and approx. 350 cyclists moving in each direction. During the period observed, around 25 people crossed the steps and made their way down into the city garden.

The movement pattern of the people crossing the steps is also presented in the heat map. This shows increased activity around the benches, for example, and indicates how the steps are not only used where there are extra steps and hand rails, but also in places where they are high.

Counts of cyclists (top) and pedestrians (bottom) illustrated below.

