



# Seeing the Picture differently

*Making Nørresundby Torv a place for autistic people  
to engage in urban life on their own terms*

# Titlepage

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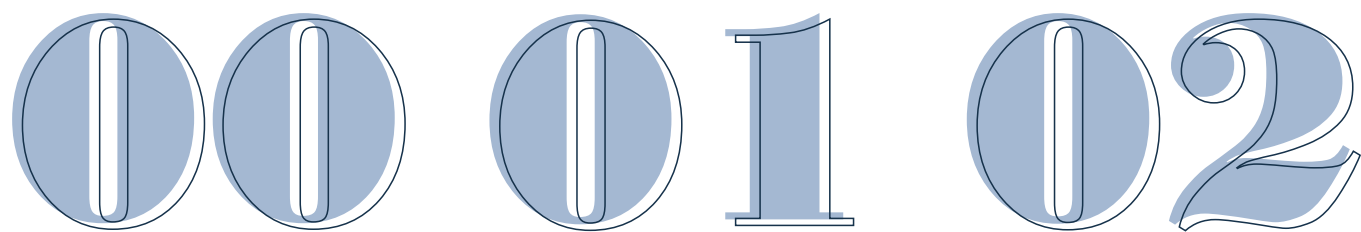
# Abstract

The master thesis project, Seeing the Picture Differently, presents a synergy between accommodating the sensory differences in autistic people and sustaining vibrant city centres.

Everybody needs to access certain necessities in urban life, like grocery shopping or moving through the city. However, due to sensory differences in autistic people and the built environment being created by non-autistic designers who aren't aware of these differences, autistic people find themselves more often than not excluded from participating in necessary and attractive urban spaces due to risks of overstimulation. Nørresundby Torv is such a place that provides the basis of urban life, although the current configuration causes overstimulation in autistic people.

In the design proposal of the thesis project, Nørresundby Torv is transformed into an inclusive place for autistic people without alienating them from general urban living by respecting the differences between autistic and non-autistic people as well as the diversity within the autistic population. The square is organised into low and high stimuli areas, together with opportunities for either increasing or decreasing the sensory stimuli. Thereby addressing the vision of accommodating autistic people at Nørresundby Torv by limiting risks of sensory overstimulation and providing opportunities for engaging in the vibrant city centre of Nørresundby Torv on their own terms.

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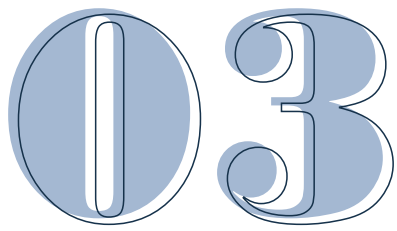
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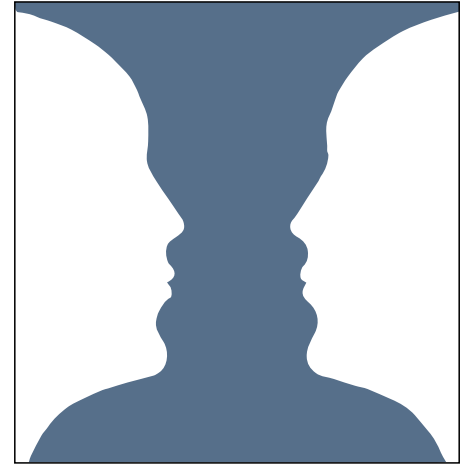
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*The face-vase illustration acts as a metaphor for the project title “Seeing the picture differently”. Some people see a face, others a vase, some can even differentiate enough to see them both - even though it is the same motive it is seen differently by different people.*



*Illustration 1. Symbolises the metaphor of “seeing the picture differently”*

# Reading Guide

To emphasise the metaphor of “Seeing the Picture differently”, the headings and chapters of the report refer back to terminology used within the visual art of painting. Furthermore, the report is organised into six chapters, followed by an appendix located at the back of the report.

**SETUP** refers to the act of getting ready to paint. Therefore, in this chapter, the practicalities of the project are described.

**FRAME** refers to the boundaries of the painting. During this chapter, the theoretical framework of the project will be defined together with an understanding of what autism is.

**GROUND** refers to the first layer applied to the canvas of the painting. In this chapter, the analyses of the site and context will be described.

**TRACE** refers to creating a sketch of the final painting to guide the work towards

achieving the desired outcome. Therefore, this chapter includes the vision and design considerations of the project that have guided the process leading to the final design proposal.

**ARTWORK** refers to the final product, the finished painting. In this chapter, the final design proposal will be presented through diagrams, plans, sections, and renderings, followed by the design process.

**VARNISH** refers to the application of a final coating to a painting. This chapter concludes the project and includes a reflection on both the process and the final design proposal.

It is worth noting that the blue quotes seen throughout the report are quotes from autistic people. They are included to keep the autistic perspective in focus.

Furthermore, mappings are oriented north facing up. In exceptions, a north arrow indicates the direction of the north.

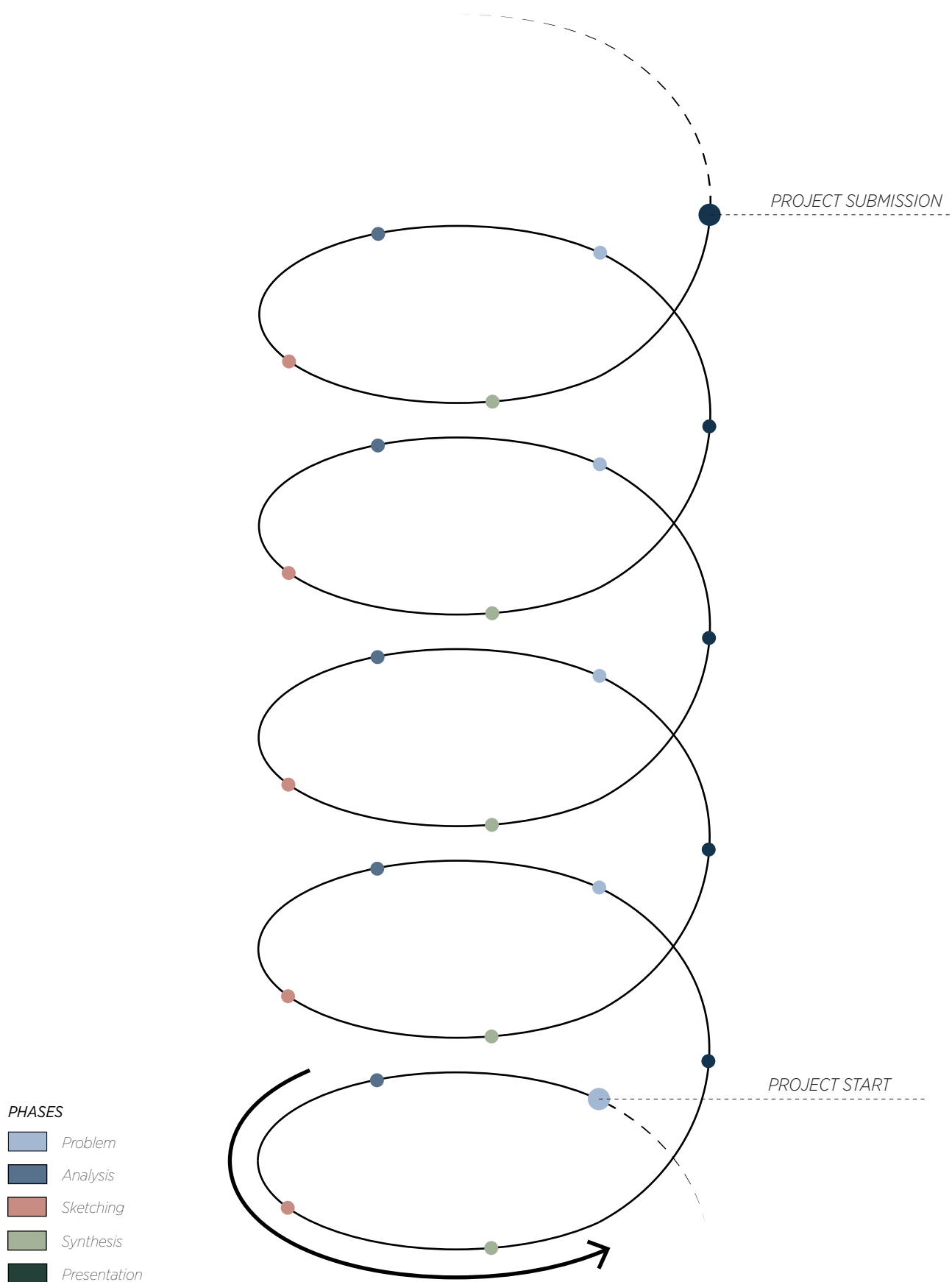


Illustration 2. Integrated design process of the thesis project

# Methodologies

The integrated design process (Knudstrup, 2004) has guided the project work through its interdisciplinary design approach and an emphasis on collaboration. However, since the project group involves only one person, the collaboration aspects have instead been centred on a relation between the different phases of the project, which are iterative. Illustration 2 shows this process through the hermeneutic spiral. Sometimes, it has felt like the project was going in circles. However, the previous work has never been in vain. It has instead helped propel the project closer to a final design proposal.

The **PROBLEM** phase is the first phase, in which the project is defined through a problem statement, vision, and literature research on autism and theoretical frameworks. Throughout the process, the problem helps reevaluate the project by serving as a critical guideline that pushes forward the project.

The **ANALYSIS** phase revolves around the analyses of the site and the gathering of relevant information, such as interviewing local autistic people to gain insight into their experiences of the site. Therefore, this phase sets the groundwork for further work.

The **SKETCHING** phase is when the knowledge gained so far is combined into design ideas that address the demands of the problem and insights from the analyses. During this phase, all the

sometimes contradictory needs, such as accommodating hypersensitivities in autistic people and supporting the vibrancy and vitality of Nørresundby Torv. New ideas produced in this phase often require new knowledge to enhance and refine them, resulting in an iterative process.

The **SYNTHESIS** phase unites the previous phases together into a single design proposal. Here, all the elements of the project work are combined to address the problem statement and vision. However, it might be necessary to return to previous phases to refine the work and arrive at a holistic solution.

The **PRESENTATION** phase is the last of the five phases. In this phase, the design proposal is presented through sections and plans in scale, together with conceptual diagrams and renderings. This phase aims to communicate the design proposal to professional and non-professional audiences. Since the integrated design process is iterative, the presentation phase involves the project work for pin-ups and supervision and showcases the final design proposal in the thesis report.

# The Toolbox

The methodologies applied in the thesis project will be described in the following sections to understand the work processes that have influenced the project.

## RESEARCH

For this project, relevant academic literature on autism and how to best design for autistic people has been critically read and translated into a project-relevant understanding of autism and theoretical frameworks.

## DESKTOP ANALYSES

Some of the earliest work in the project was collecting site information by doing desktop analyses done as mappings by using resources like Google Maps for current functions and plans from the municipality for structural information like road classifications. In addition, reference pictures were analysed to gain an understanding of the underlying processes of potential design elements.

## SITE VISITS

Several site visits were conducted to gain qualitative data on the use and experiences of the site. Photography was used heavily to gather information based on categories such as first impressions, pavement typologies, and activities. To add a quantitative dimension, structured observations were made by counting cars, bikes, and pedestrians moving through the site for 15 minutes to help gain an understanding of the most characteristic uses of the site and help to narrow down the scope of the transformation of Nørresundby Torv.

## USER INVOLVEMENT

During the project work, contact was established with the local community provider for autistic people, Autismcenter Nordbo, to involve the future users of the site. An online questionnaire was sent to their employees and residents of a housing accommodation located at Sankt Peders Gade, a few hundred meters north of the





*Illustration 3. A moment in the design process of the thesis project*

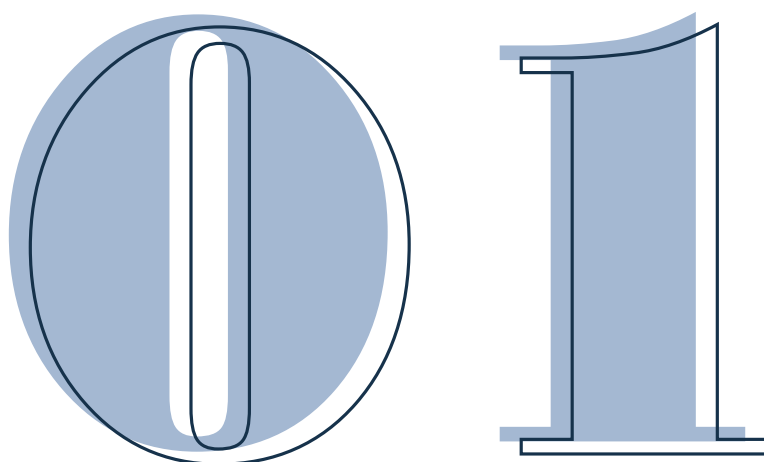
site. The survey contained questions with different answering opportunities, such as multiple choice, a grading system, and free-text answers (see Appendix 1). The survey supplemented the findings of the literature on autism by providing a local context and gave insights into how autistic people use Nørresundby Torv today.

## SKETCHING

Throughout the design process, different media have been utilised to explore design ideas and strategies, including traditional pen and paper sketches and digital drawings. A point was made for switching between sketching in plan, section, and perspective to investigate the most promising ideas from multiple angles to better improve them. Furthermore, Illustrator and Rhino helped explore the design ideas in scale, which gave insights into the space constraints and implementation of dimension standards for roads and bus stops.

## MODELLING

Besides 2D sketches, design ideas were generated and explored through 3D modelling in Rhino to help gain a spatial understanding of the design ideas. Furthermore, Rhino was used for extruding 2D material for presentation materials such as sections, plans, and renderings.



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*FRAME*

## **Setting up the Framework**

The following chapter will establish the theoretical framework needed to understand the basis of the project and the academic thoughts that have influenced the design proposal. At the beginning of the chapter, the project is introduced together with a description of the personal motivation behind designing urban spaces for autistic people. Afterwards, the project location will shortly be introduced following an in-depth description of autism. Lastly, the three cornerstones of the theoretical framework will be explored with a summarising conclusion that connects the various elements into one coherent frame.



# Introduction

More and more people get diagnosed with autism, however, autism isn't a new and rising phenomenon. The rise in diagnoses can be seen as a result of professionals getting better at detecting autism. However, most people get an autism diagnosis after approaching doctors and psychologists because of mental struggles and very poor mental health. Therefore, the rise in autism diagnoses can be seen as an immense problem in the poor mental well-being of autistic people, which has gotten worse over the years. It is therefore, now more than ever, important to support autistic people in their everyday lives so that they can live comfortable and meaningful lives and be treated as equal human beings as non-autistic people.

Although an increase in focusing on creating accessibility for people with physical disabilities and an increase in acknowledging the importance of creating healthy spaces for both the body and mind, the same attention is only just starting to reach the neurodiverse experience of urban life and the implications this has of what a good urban space is. The thesis project of *Seeing the Picture Differently* aims to initiate a conversation on how to accommodate autistic people without isolating them from the offers and attractions of urban life. For this, the thesis project addresses how Nørresundby Torv can be transformed to accommodate autistic people by limiting

the risks of sensory overstimulation and having the opportunities to engage in the vibrant city centre of Nørresundby on their own terms.

Since the majority of the population is non-autistic, architects, urban planners and policy-makers are vastly unaware of what constitutes positive and negative experiences for autistic people, and therefore often unknowingly design cities and public spaces that are harmful to autistic people and their experience of the world. Through the thesis report an understanding of autism as a neurodiversity that influences how the world is experienced guides the transformation of Nørresundby Torv from a hostile environment for autistic people to an inclusive and vibrant city centre for both autistic and non-autistic people. Thereby inviting autistic people to participate in urban life, which they previously have been excluded from due to a disregard for accommodating sensory differences. The characteristics of autism are shared with the non-autistic population, although the intensity is different. Therefore, by creating a safe and attractive space for autistic people, the thesis project will show how also non-autistic people are accommodated and enjoy the opportunities provided.

# Project Location

The location selected for the thesis project is Nørresundby Torv, situated in the medium-sized city of Nørresundby, which is located just on the other side of Limfjorden from Aalborg, the fourth largest city in Denmark (Lykke-Andersen & Mikkelsen, n.d.). The site has been chosen due to its physical attributes and its role as the central square of Nørresundby city centre.

The site is almost 6000 m<sup>2</sup>, just north of Limfjordsbroen, which connects Nørresundby to Aalborg. Today, the shops at Nørresundby Torv are struggling with their vicinity to Aalborg city centre. Although the site has status as the central square of Nørresundby city centre, many shop units are vacant due to widespread online shopping and industrial shopping at the edge of Nørresundby and Aalborg. Vibrant city centres, however, might not be considered ideal for autistic people, although such places are necessary to access for participating in urban life. Therefore, the reasoning behind choosing the project location stems from an ambition to showcase how designing urban spaces for autistic people can be a means to support and sustain vibrant city centres.

Furthermore, the relationship between Nørresundby and Aalborg has played a big part in the choice of the project location, with Nørresundby Torv being part of the smaller city centre of Nørresundby within the city centre areas of Aalborg. By being located just on the opposite side of Limfjordsbroen, Aalborg city centre provides many attractive functions like shopping malls, restaurants and theatres, which provides the possibility for challenging what we expect of a city centre and how designing for autistic people can be a way of exploring alternatives for sustaining vibrant city centres.



Illustration 4. Project location





***” I don’t consider autism to be a disability on its own  
- but in a world designed for neurotypical people  
I find myself disabled by societal constructs and  
expectations.”***

*Flo, Autistic Adult (Autistica, n.d.)*

# Understanding Autism

Autism is a neurodiversity (Robeyns, 2016) that impacts how individuals perceive the world, including differences in sensory experiences, communication, and executive functioning (Autistica, n.d.). However, autism is also viewed as a psychological development disorder with some arguing for a fine-grained segmenting of autism based on degree of impairments. It is important to note that there is no clear scientific evidence for this. Moreover, a distinction between ‘low-functioning’ and ‘high-functioning’ poses grave risks, potentially excluding certain autistic people from the concern, dignity, and respect offered to others. (Pellicano et al., 2022) Autism is therefore a complex matter to describe given space constraints. It is not possible within the scope of the thesis project to present a sufficient account of autism together with a critical review of the stigmatisation and stereotyping of autism within research and popular culture.

The situation is made more complex by the diversity within the autistic population. The

complexity and ambiguity of autism have led to a conceptualisation of autism as a spectrum. However, autism shouldn’t be understood as a continuum with ‘more’ or ‘less’ autistic traits. Instead, there are many ways to be autistic. Autistic people can experience varying degrees of differences, strengths and support needs (Autistica, n.d.). Some are hypersensitive to sensory stimuli and experience pain from loud noises or can’t wear tight-fitting clothing. Others are hyposensitive and seek out high levels of stimuli like loud music or fast-paced movements. An example of three profiles of autistic people is illustrated in illustration 6, which shows how the degrees of different characteristics can vary between autistic individuals. The following will describe autism as briefly as possible without being too simplistic for use by highlighting the aspects that are most important to understand for designing urban spaces for autistic people.

The characteristics of autism can vary

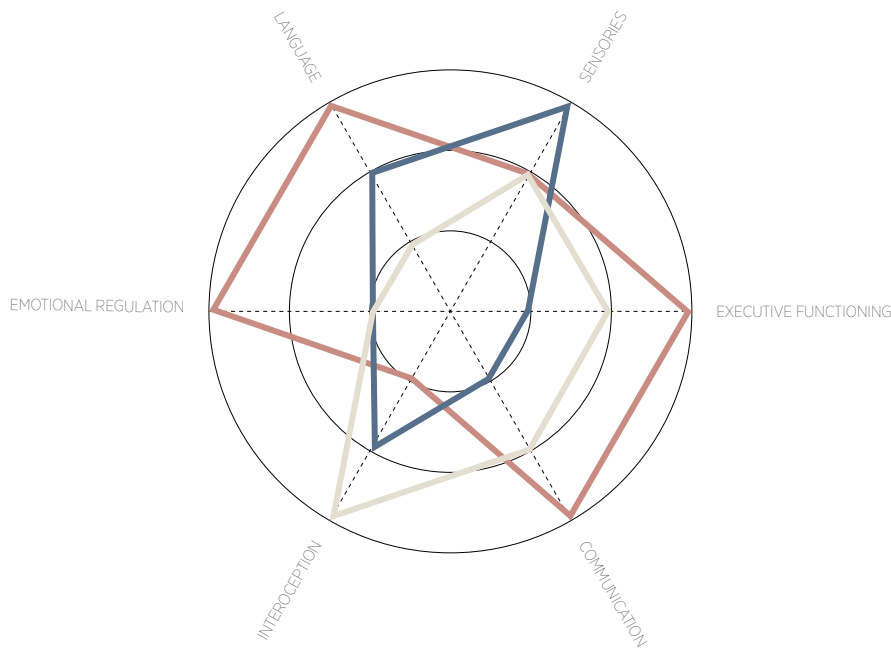


Illustration 6. Example of profiles of three autistic individuals

widely among autistic individuals. However, they all experience unique ways of interacting and perceiving the world around them, which differ from those of non-autistic individuals. Additionally, many characteristics associated with autism are also seen in the non-autistic population (Robeyns, 2016). Therefore, it is the intensity and impact of these characteristics that determine if one is autistic. An autistic person might have sensory differences that make them hyper -or hyposensitive to sensory input like sight, hearing, touch, smell, taste, and balance. They may also communicate in a way that differs from non-autistic people through their word choices, tone, and body language. In addition, autistic people can have differences in their language by speaking few or no words either permanently or when they feel stressed. Some autistic people can also speak fluently and maintain conversation in multiple languages but might struggle to detect the use of metaphors or sarcasm. An autistic person might also, to varying

degrees, struggle with executive functions like staying organised or the ability to plan. Furthermore, autistic people have varying abilities to notice and understand the internal cues of their bodies, like thirst or hunger. Some also struggle to regulate or describe their emotions. (Autistica, n.d.)

Another aspect of understanding autism is its classification as a psychological disorder (Robeyns, 2016). However, this classification lacks respect for the actual experiences of autistic individuals, as diagnosis is often given only when a person is in distress. Many autistic adults initially seek their diagnosis after experiencing concerns about social relationships and mental health. The diagnosis of autism is on the rise (Hens, Robeyns & Schaubroeck, 2019). For many, this search for diagnostic clarity is preceded by decades of feeling different (Pellicano et al., 2022). Furthermore, it is estimated that two out of three autistic adults remain undiagnosed (Autistica, n.d.), leaving many out of the needed support

***”Being autistic for me means having huge strengths in some skills, deep interests and wonderful sensory perception of the world, but also a deep sense of not fitting or understanding other people and being isolated from those around me”***

*Gill, Autistic Adult (Autistica, n.d.)*

and services that an autism diagnosis gives access to. An autistic person without a diagnosis shares the same experience of safe and harmful areas of the city as people with the diagnosis. A diagnosis doesn't determine which areas of the city are safe or not for an autistic person to visit without suffering from burnout or overstimulation. It is therefore necessary to understand autism by including the observed and experienced characteristics of autism from a human perspective, and not just rely on medical definitions.

## **CONCLUSION**

Autism is a neurodiversity that affects in both positive and negative ways the experience of urban life. Furthermore, due to non-autistic designers and planners being unaware of the differences in autistic people, urban life is often set in disabling environments that cause unnecessary stress and ill-being for autistic people (Autistica, n.d.). Autistic people differ greatly from non-autistic people while being a diverse

group. Therefore, due to the limitations of this project, it is necessary to focus on a subgroup instead. It is worth mentioning that this group is dynamic since the difficulties in the city will change for the individual over time. In this project, the focus will be on the sensory difficulties that autistic people experience, either due to hyper or hyposensitivities to sensory stimuli.

# An Account of Well-being

Like all others, autistic people want to live good lives. However, autistic people are believed to experience lower levels of well-being than their non-autistic counterparts. (Robeyns, 2016) To promote the well-being of autistic individuals, it is important to clarify the concept of well-being. The capabilitarian approach gives a promising basis to develop an account of autistic well-being by being a normative framework that claims well-being should be understood as a set of functionings that people have reason to value. Such functionings can be beings and doings, like having friends, being secure, etc. However, they don't have to be positive but can also include functionings whose presence would indicate ill-being, like being stressed or anxious. In the capabilities approach, well-being is distinguished at two levels; achieved levels of well-being and the freedom one has to achieve well-being. (Robeyns, 2016)

The focus on real opportunities that afford ways of living that are meaningful for the individuals themselves enables the identification of ways in which autistic people can thrive on their own terms and the nature of the obstacles to this thriving. The key to the capabilitarian approach is the value of personal autonomy. Following the belief that all people, including autistic people, should have the quality of their life measured according to their own aspirations and they should enjoy the right to be at least part author of their own lives.

Autistic people deserve to live long, healthy and creative lives on their own terms. Therefore, they need to be equipped with a set of fundamental capabilities to do so. The lives of autistic people can be examined through ten central capabilities that most people need if they are to be able to choose and create lives that are meaningful and fulfilling on their own terms. Allowing for viewing autistic lives without normative judgement, while also being attentive to issues that require intervention and support. (Pellicano et al., 2022). The capabilitarian approach enables designers to evaluate the opportunities and challenges facing autistic people, the forces that shape them and how the quality of their lives might be enhanced (Pellicano et al., 2022).

## CONCLUSION

If an autistic person wants to do something, and their innate characteristics permit it, the physical environment should allow them to do so. It is not merely enough to allow autistic people to enter specific spaces, rather genuine opportunities should be given by designing the built environment in such a way that it does not cause harm or ill-being, like sensory overload. Understanding what makes for a good account of autistic well-being is therefore necessary and helpful when designing urban spaces that are inclusive for autistic people to engage with.



#### **LIFE**

“Being able to live to the end of a human life of normal length” (Pellicano et al., 2022, p. 627)



#### **EMOTION**

“Being able to have attachments to things and people outside ourselves” (Pellicano et al., 2022, p. 627)



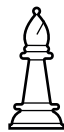
#### **PLAY**

Emphasises the right to be “able to laugh, to play, to enjoy recreational activities” (Pellicano et al., 2022, p. 627)



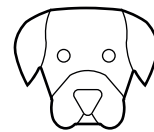
#### **BODILY HEALTH**

“Being able to have good health [...]; have adequate shelter” (Pellicano et al., 2022, p. 627)



#### **PRACTICAL REASON**

“Being able to form a conception of good and to engage in critical reflection about the planning of one’s own life” (Pellicano et al., 2022, p. 627)



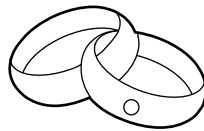
#### **OTHER SPECIES**

Being “able to live with concern for and in relation to animals, plants and the world of nature” (Pellicano et al., 2022, p. 627)



#### **BODILY INTEGRITY**

Being “able to move freely from place to place; to be secure against violent assault” (Pellicano et al., 2022, p. 627)



#### **AFFILIATION**

“Being able to be treated as a dignified being whose worth is equal to others” (Pellicano et al., 2022, p. 627)



#### **SENSES, IMAGINATION & THOUGHT**

Being “able to use the senses, to imagine, think, and reason” (Pellicano et al., 2022, p. 627)



#### **CONTROL OVER ONE’S ENVIRONMENT**

“Being able to participate effectively in political choices that govern one’s life” (Pellicano et al., 2022, p. 628)

*Illustration 7. Well-being capabilities*

# ASPECTSS

Architecture and urban design revolve around the manipulation of the physical environment to facilitate certain functions and behaviours. The physical environment is primarily comprised of sensory components, which is also the key to designing for autistic people (Mostafa, 2014) since autistic people have an altered sensory perception towards sensory information such as touch, sound, smell, and light compared to non-autistic people.

The autism ASPECTSS Design Index was developed by the Egyptian professor of Design in the Architecture Department at The American University in Cairo, Magda Mostafa (The American University in Cairo, n.d.). It is the first set of evidence-based design guidelines worldwide to address the built environment for autistic people. Developed over a decade of research, it is comprised of seven design criteria as a tool for assessment and design development. (Mostafa, n.d.) The design principles were generated based on common sensory environment problems, such as acoustics,

texture, and lightning (Mostafa, 2014).

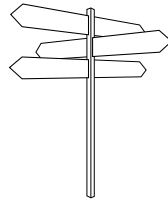
## CONCLUSION

Although the ASPECTSS design guide was initially developed in an architectural context, it is also applicable to urban design. According to the ASPECTSS design index, autistic people identify with the built environment per sensory zoning rather than conventional functioning zoning. Therefore, spatial groupings should follow autistic logic and involve sensorial compatible functions (Mostafa, 2014) to ensure an attractive and safely experienced space for autistic people. Furthermore, the importance of wayfinding, navigation, circulation and spatial sequencing cannot be over-emphasised. Coupled with sensory zoning, this may greatly aid autistic people in gaining independence (Mostafa, 2014) and enjoying the qualities of urban spaces.



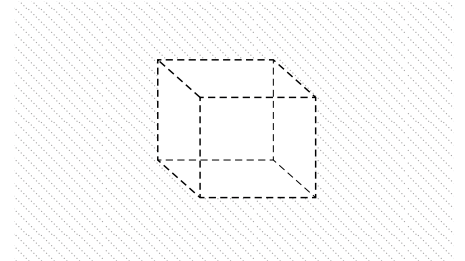
#### ACOUSTICS

The acoustical environment should be controlled to minimise background noise, echo, and reverberation. (Mostafa, 2014)



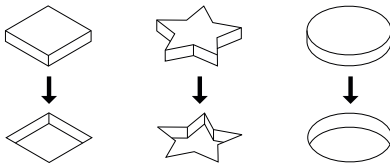
#### SPATIAL SEQUENCING

Requires that areas be organised in a logical order, and is based on the need for routine and predictability for autistic people. (Mostafa, 2014)



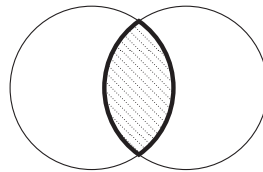
#### ESCAPE SPACE

Provide refuge for autistic people from overstimulation by providing a neutral sensory environment with minimal stimulation. (Mostafa, 2014)



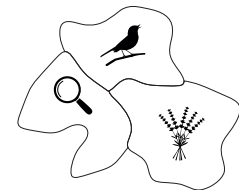
#### COMPARTMENTALISATION

Requires that the sensory environment of each activity is defined and limited. Each compartment should include a single and clearly defined function. (Mostafa, 2014)



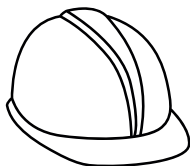
#### TRANSITIONS

Helps the user to recalibrate their senses as they move from one level of stimulus to another and facilitates Spatial Sequencing and Sensory Zoning. (Mostafa, 2014)



#### SENSORY ZONING

Spaces should be organised based on their allowable stimulus level, rather than the traditional zoning based on functions. (Mostafa, 2014)



#### SAFETY

Autistic people may have an altered sense of their environment, which can lead to safety concerns (Mostafa, 2014).

Illustration 8. Design principles of ASPTECTSS

#### *PROSPECT*

The ability to observe opportunities or foresee dangers within the environment. To observe from a distance is the most closely related ability across environments. (Manolakelli, 2023).

#### *REFUGE*

The ability to hide or remain concealed from danger. Related environments to this ability tend to create safe spaces to retreat to if there is a sign of danger or a recharge without being interrupted. (Manolakelli, 2023)

# Prospect & Refuge

The theory of Prospect and Refuge was first developed by geographer Jay Appleton in 1975. It has since been widely used in the architectural and urban design fields. (Manolakelli, 2023) According to Appleton (1984), the aim for establishing this theory was to have a simple model that could relate ideas of preference to landscape typologies by identifying environmental perceptions as a key to all adaptive behaviours.

According to the Prospect and Refuge theory, humans are naturally drawn to certain spaces that create a sense of safety through the possibilities of responding to their needs by reviewing the surroundings for potential opportunities and dangers without being visible. Spaces that provide both are seen as ideal and commonly preferred (Manolakelli, 2023). The argument is that certain biological cravings, due to the needs for self-preservation, is provided in the natural environment. These actions are still evident in modern lives when sudden warnings of danger appear, and signs of responding to symbolic

indications of opportunities to take either evasive or protective action are still seen in our responses (Appleton, 1984). Although only one preservable action can be taken, a successful space needs to accommodate a balance of both. The strongly contrasting landscapes of prospect and refuge are more potent than that which comes from attempting a balance all at once (Appleton, 1984).

## CONCLUSION

It is important to be aware that the terms Prospect and Refuge refer to concepts rather than objects. They only find expression in the most basic processes of environmental perception. The theory is therefore only a useful tool in a design context for explaining how human beings notice the environment in terms of opportunities for behavioural responses. (Appleton, 1984) Thereby serving as a guide for the designer in understanding the influencers of human behaviour.





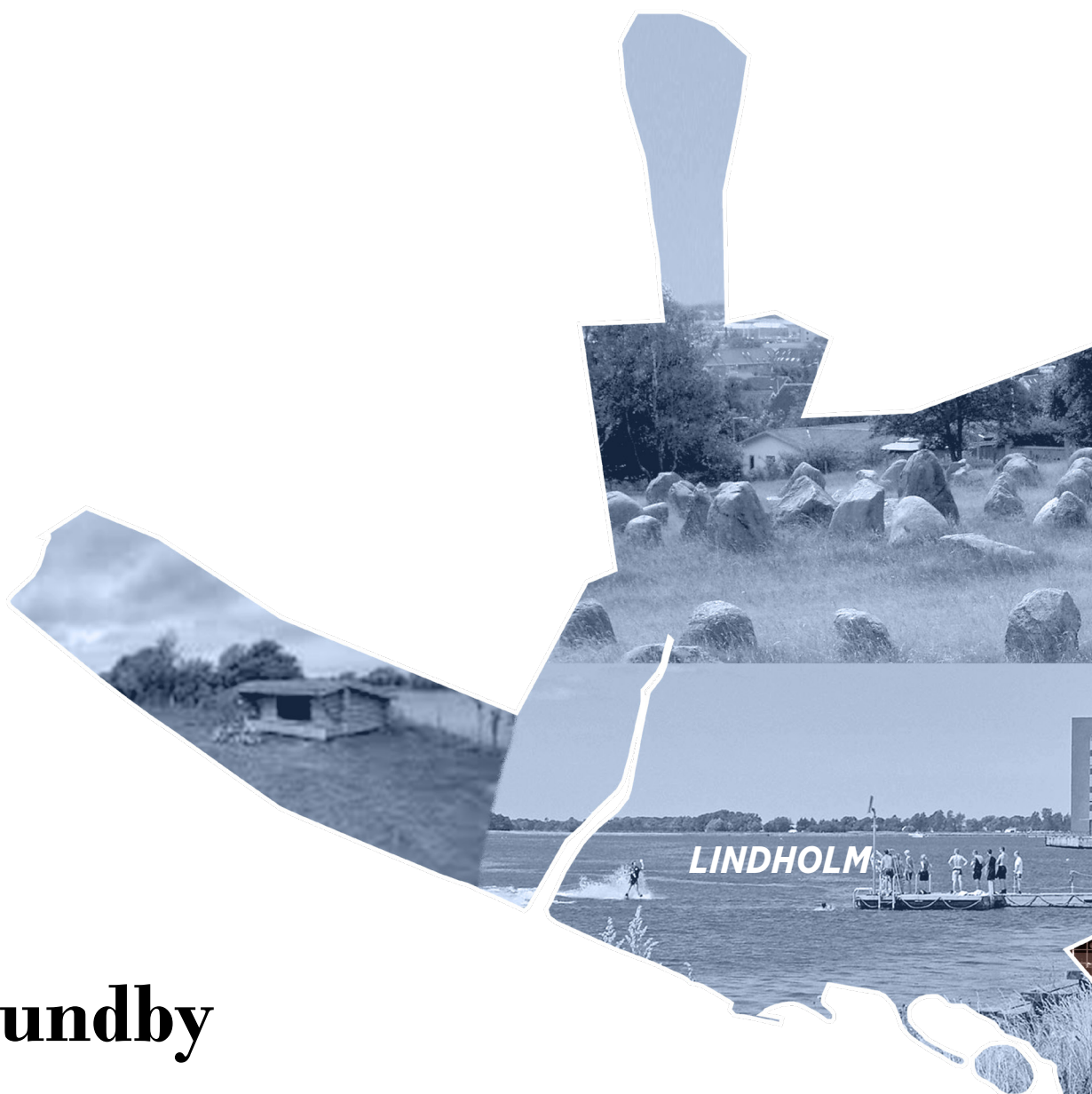


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*GROUN*

## **Preparing the Base**

The following chapter centres around analyses of the city of Nørresundby, its city centre, and the project site of Nørresundby Torv. The analyses look into the structures of the built environment and address how these affect autistic people both generally and for the personal embodied experience. The chapter will end with a conclusion that summarises the strengths and weaknesses of Nørresundby Torv together with the opportunities and threats that are to be dealt with in the design proposal.



# Nørresundby

Nørresundby is located just north of Limfjorden on the other side of Aalborg. With roughly 24.000 inhabitants (Danmarks Statistik, 2024), Nørresundby might be called a satellite city to Aalborg, however, there exists a duality in the relationship between Aalborg and Nørresundby. On one hand, Aalborg is the fourth largest city in Denmark (Lykke-Andersen & Mikkelsen, 2017) and is the driving force for much of the regional growth with Nørresundby being a partner in this development with an international airport and smaller industrial harbours. On the other hand, despite the close relationship with Aalborg, Nørresundby has its own distinctive characteristics and a strong identity as 'the sunny side'. Furthermore, Nørresundby is made up of five districts each with their own qualities. The districts of Løvvang, Nørre Uttrup and Lindholm are characterised by residential buildings and scattered industries, with the tallest residential building in northern Jutland located in Lindholm (Kjølby Christensen, 2020) and the local retail zone of Bouet in the Northern part of Nørre Uttrup. Stigsborg is a new district currently being developed that will include residential and mixed-use spaces together with a park larger than Kongens Have in Copenhagen (Stigsborg have, n.d.). Nørresundby City Centre is the historical centre of Nørresundby with the classic city centre identity with narrow streets and small local businesses.



Illustration 9. The districts of Nørresundby

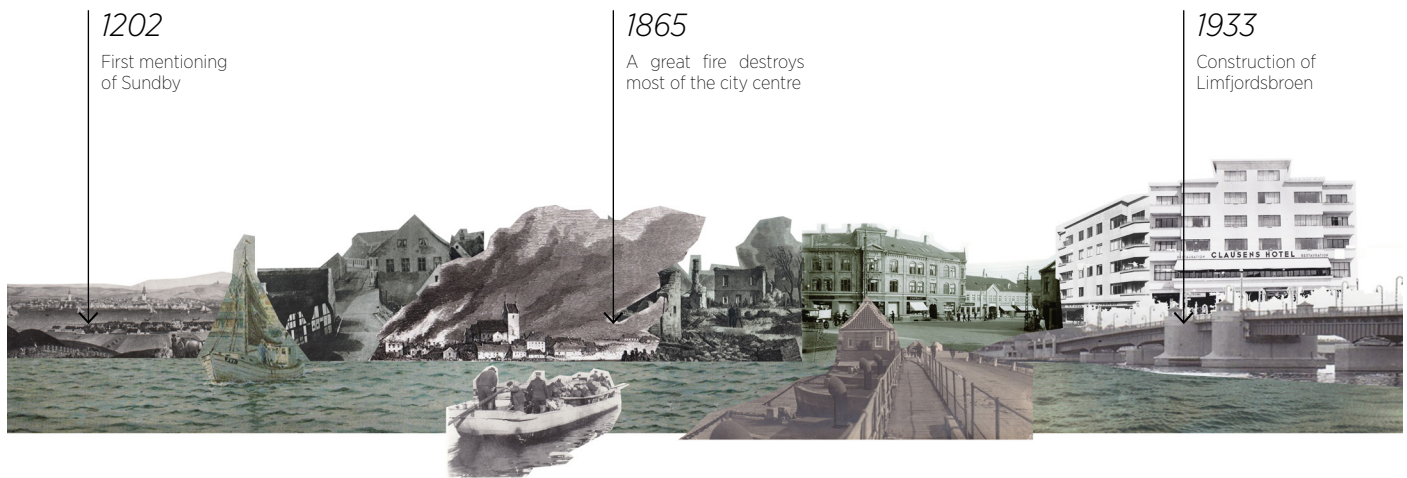


Illustration 10. Significant events in the history of Nørresundby

## The Shaping of Nørresundby

The relationship with the bigger city of Aalborg has played a significant role throughout the history of Nørresundby (Jensen & Christiansen, 2017). However, it is only since the municipal merge in 1970 that Nørresundby has been considered a part of the greater city of Aalborg (Lykke-Andersen & Wohlfahrt, 2017). Today, Nørresundby is first and foremost seen as a residential area in Aalborg (Christiansen & Jensen, 2017), with only the strong independent identity of Nørresundby revealing that this has not always been the case.

Nørresundby has been populated for thousands of years and is first mentioned as Sundby (the city by the sound (Lykke-Andersen & Wohlfahrt, 2017)) in 1202. After the Reformation in 1536, Sundby was given ferry privileges. (Jensen & Christiansen, 2017) It was not until 1865 that a pontoon bridge was built to ease transportation across the fjord, although the fragile nature of the bridge made ferry transportation still relevant. In 1933, a new bridge was built which completely replaced the

ferries (Studstrup, 1994). Limfjordsbroen is still in use today with its bridge landing located near the historic city centre and Nørresundby Torv.

The city centre of Nørresundby has undergone many drastic transformations over the centuries. During its history, Nørresundby has experienced many big fires, with the last one in 1865 where most of the city centre burned down. In connection with the establishment of Limfjordsbroen in the 1930s, as well as renovations in the 1950s and 60s, the historic city centre experienced vast breaks of the original market town typology through street breakthroughs and the construction of new modern buildings. (Aalborg Kommune, 2020) In recent years, the harbourfront of Nørresundby and its industrial heritage have been transformed into new housing, culture, and business functions together with new recreational opportunities along the fjord. (Christiansen & Jensen, 2017)



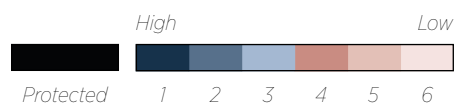


Illustration 11. Preservable buildings and cultural environments determined by Aalborg Municipality (Aalborg Kommune, n.d.)

#### CULTURAL ENVIRONMENT



#### BUILDING PRESERVATION



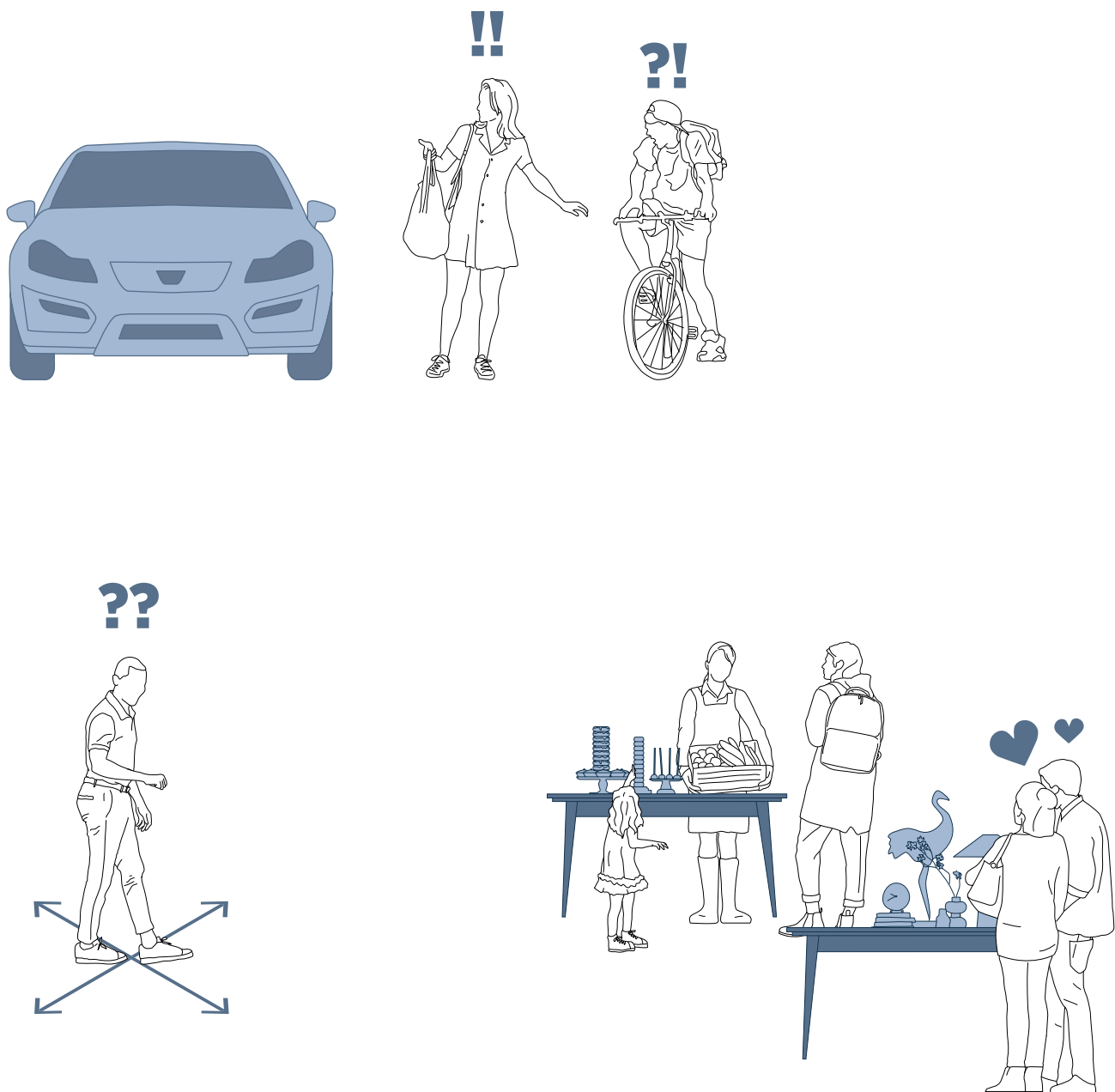


Illustration 12. Insights from online questionnaire

When dealing with stressful situations both autistic and non-autistic respondents reported that they respond by removing themselves from the situations. Not having the opportunity to escape in case a situation gets stressful can add to the stress level in the autistic respondents while the non-autistic respondents don't seem to be that concerned with this issue. Furthermore, the autistic respondents experience physical pain when feeling overwhelmed, which might explain the anxiety surrounding the risks of overstimulation.



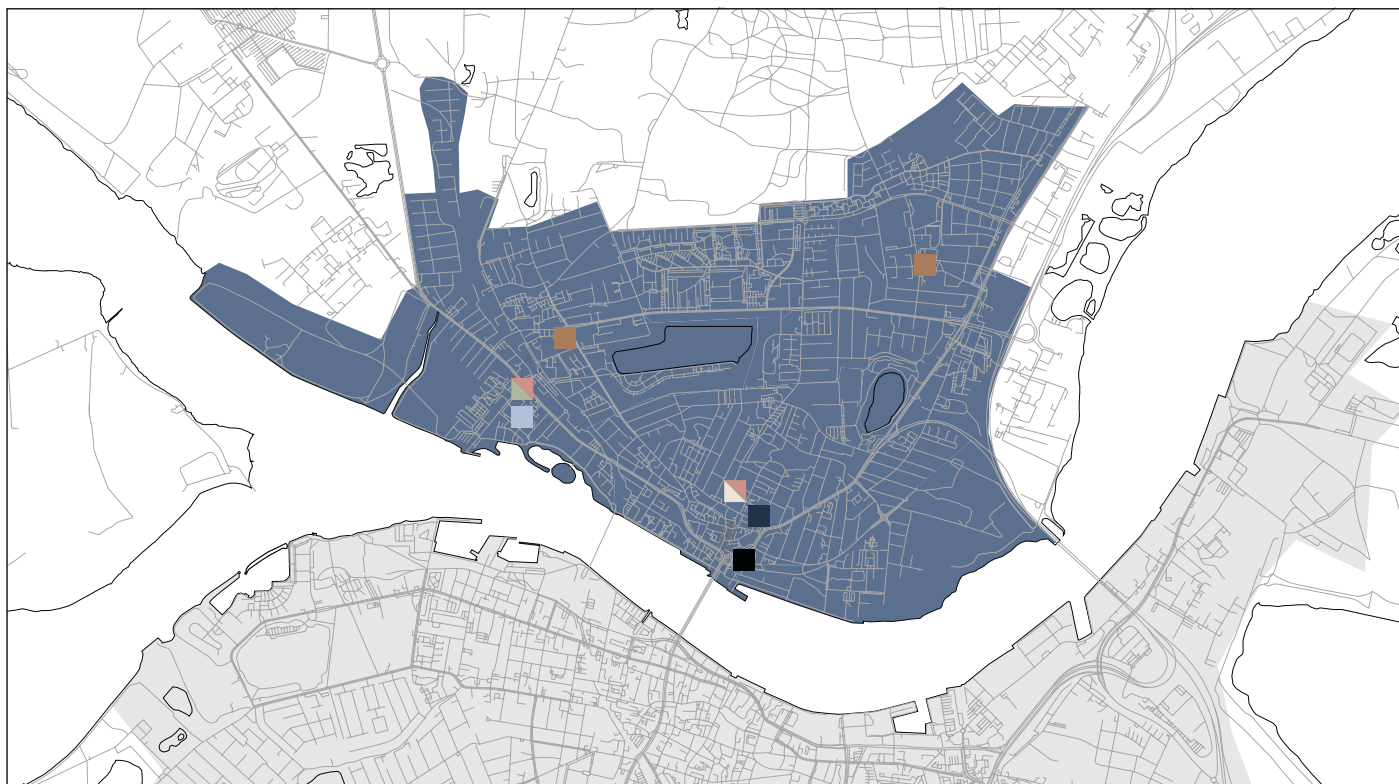


Illustration 13. Services for autistic people in Nørresundby

#### AUTISMCENTER NORDBO SERVICES

- Independent housing
- Community housing
- Guidance counseling
- Administration
- Café

#### MUNICIPALITY SERVICES

- Public housing
- Socialising

## Being Autistic in Nørresundby

In Nørresundby, different opportunities exist for autistic people to get support in their everyday lives and come together either at social events or in public housing accommodations. Autismecenter Nordbo is the biggest provider of accommodations for autistic people in Nørresundby, vastly outnumbering the support offered by the municipality. Near Nørresundby Torv, both a location for counselling and apartments for communal living are offered for autistic adults.

Due to their close proximity to Nørresundby Torv, the employees and residents of the housing accommodation at Sankt Peders Gade have been given an online questionnaire (see Appendix A). From this, several key insights have been gained, concerning both how autistic people experience Nørresundby Torv, being in stressful situations, and the similarities between the experiences of autistic and non-autistic people.

When asked what they associate with Nørresundby Torv, all of the respondents

mentioned shopping and transit space, with the traffic situation being the cause of most negative experiences at Nørresundby Torv.

### CONCLUSION

The survey has shown that knowing there is a safe place lowers the level of stress and anxiety in autistic people. When transforming Nørresundby Torv, it is therefore important to provide opportunities for escape throughout the square even in spaces that might not cause great risks of overstimulation. Furthermore, the traffic situation needs to be transformed from a place of transit to a space for mobilities with a clear distinction between the different transportation modes. Lastly, due to the close vicinity of Autismecenter Nordbo's functions, Nørresundby Torv is already a place that autistic people are familiar with and often use, although mainly as a spot on their route to and from other functions like school and work.



Illustration 14. Zoning of central Nørresundby

## Looking forward

The greater city of Aalborg includes both sides of the Limfjord, and the planning strategies relevant to the site of Nørresundby Torv can be said to be double. On one hand, Nørresundby is located on "the sunny side" of the fjord with various districts, each with its own qualities and distinctions that cater to everyday life. On the other hand, Nørresundby is part of the greater city of Aalborg, which entails a very different rhythm as the regional growth catalyst. (Aalborg Kommune, 2022) It is the intention in the planning policies that Aalborg and Nørresundby city centre as one is the dynamo in the regional and local development. Together they will stand strongly in the competition with other major cities. (Aalborg Kommune, 2020)

Together with the conventional municipality plan, Aalborg municipality has developed a city development plan for Nørresundby, organised into three themes. The first theme, A vital role in the big city, is how Nørresundby's role in the big city can be strengthened through attractive

connections between the fjord and city centre for pedestrians and bike riders while providing meeting places for strong local experiences. Furthermore, actions should be taken to manage the car traffic in Nørresundby with a special focus on arrival spaces for pedestrians and bike riders across the fjord by having better connections to Limfjordsbroen. (Aalborg Kommune, 2022) The second theme, Connections, is how the connections across Nørresundby can be strengthened through better crossing opportunities across large infrastructural barriers. Furthermore, the recreational connections, biodiversity, and outdoor life in all of Nørresundby shall be strengthened in both existing green spaces and urban nature and better pedestrian and bike rider connections between these spaces. (Aalborg Kommune, 2022)

The last theme, Vibrant districts, is how the five districts of Nørresundby can be strengthened as vibrant districts through safe pedestrian and bike connections. The attractive everyday life should be

***”If they remove our parking spots, then we will close. That is how serious the situation is”***

*Local business owner (Sønderup, 2023)*

supported by having good access to shopping opportunities in relationship with other functions, thereby ensuring vibrancy. (Aalborg Kommune, 2022)

As a consequence of connecting Nørresundby city centre and Stigsborg, Nørresundby Torv is expected to be redeveloped to support its role as a meeting place in the district by rethinking the urban spaces of Nørresundby Torv and its connecting streetscapes. In this redevelopment, vegetation will play a significant role. (Aalborg Kommune, 2022) In 2022 the architectural competition regarding a masterplan for Nørresundby Torv was won by MOE and Schønherr, who proposed removing passing-through traffic to make it easier for children to move around in the area. (Pedersen, 2023)

The intention was that the construction of the project would be completed in 2025. (Nielsen, 2022) However, currently, the project has been stopped (Lauritzen, 2023). In the masterplan for Nørresundby Torv, 20 short-term parking spaces were

planned to be removed together with a lowered prioritisation of car access. The local shop owners at Nørresundby Torv saw the exclusion of cars as a huge threat to the success of their businesses and have publicly threatened to move away from Nørresundby Torv if the plans were realised. (Sønderup, 2023) The butcher located at Nørresundby Torv argues that if people cannot park their cars outside the shop, they can't collect their meat packages, which the business is completely dependent on. (Lauritzen, 2023)

## **CONCLUSION**

With the shutting down of the project, there are currently no public plans for a new redevelopment plan for Nørresundby Torv. However, one thing is sure, for a new plan to be accepted by the local business owners, car traffic and especially short-term parking at Nørresundby Torv is necessary to include in any redesign.





Illustration 15. Nørresundby City Centre

# *Nørresundby*

## **City Centre**

Nørresundby city centre is part of the four districts of Aalborg city Centre and also the central district of Nørresundby, containing a multitude of everyday conveniences and speciality stores. The district is located between the hill Skansebakken and the Limfjord with the Y-shaped regional traffic corridor currently acting as a barrier between the two. Nørresundby city centre is a mixture of residential and businesses reminiscent of the old historic city core located just north of the bridge landing of Limfjordsbroen.

In the following pages, the structures of Nørresundby city centre will be explored through various mappings to get an understanding of the context of the project location.

# Morphology

The site is surrounded by large open spaces, especially towards the harbourfront and just north of the site. The cemetery and Skanseparken serve as two large open spaces amid areas of small-scale buildings and open spaces. Furthermore, the site is situated on the bottom of the hill Skansebakken, which means that the topography of the site is increasing towards the north with a height difference of 3 meters. Although the site is located close to the Fjord, the bridge landing is higher than the southern part of the site, and therefore serves as a barrier for viewlines and encloses the site to the south, despite it seeming like an open space in illustration 17.

## CONCLUSION

The site has two contexts it has to situate itself between as well as its own typology of narrow streets and connected volumes. Buildings and open spaces are larger and more scattered to the south of the site, while to the north it is more dense with one-family houses and gardens. Furthermore, due to the terrain elevation from south to north of the site, there is potential to play with view lines and zoning through height differences. However, it is also necessary to be aware of potential risks for pedestrians if the ground isn't even.

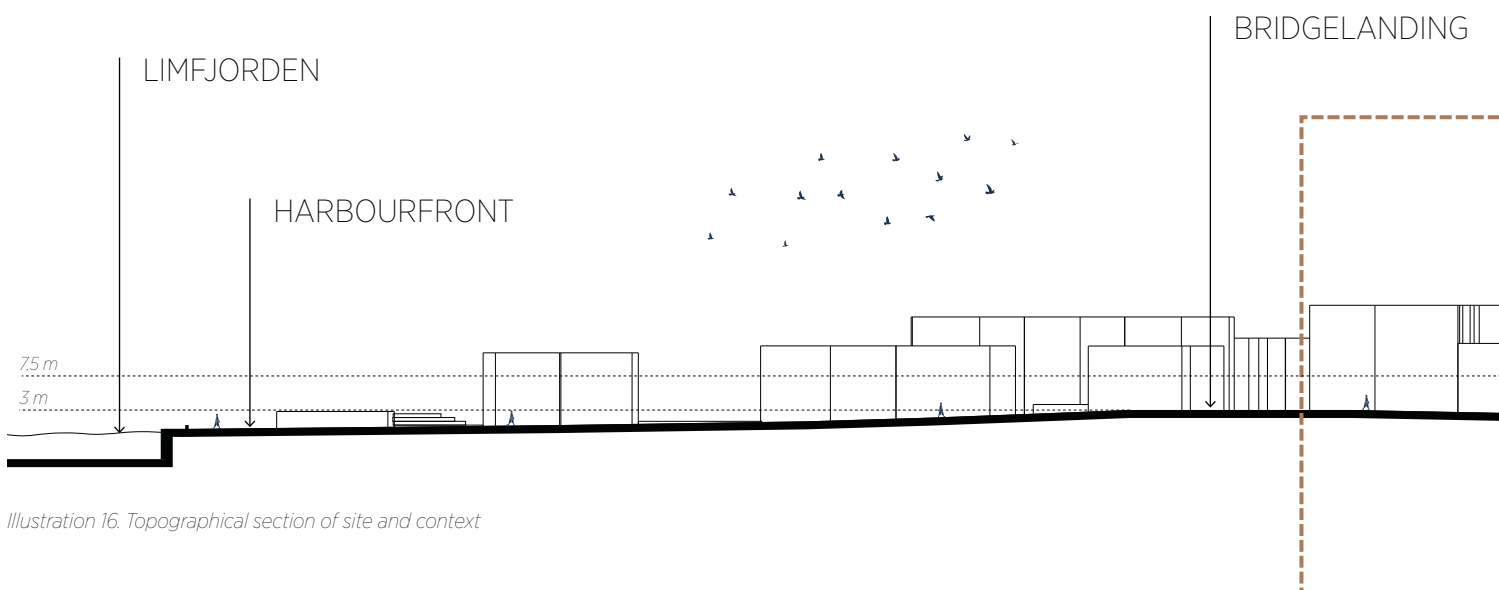
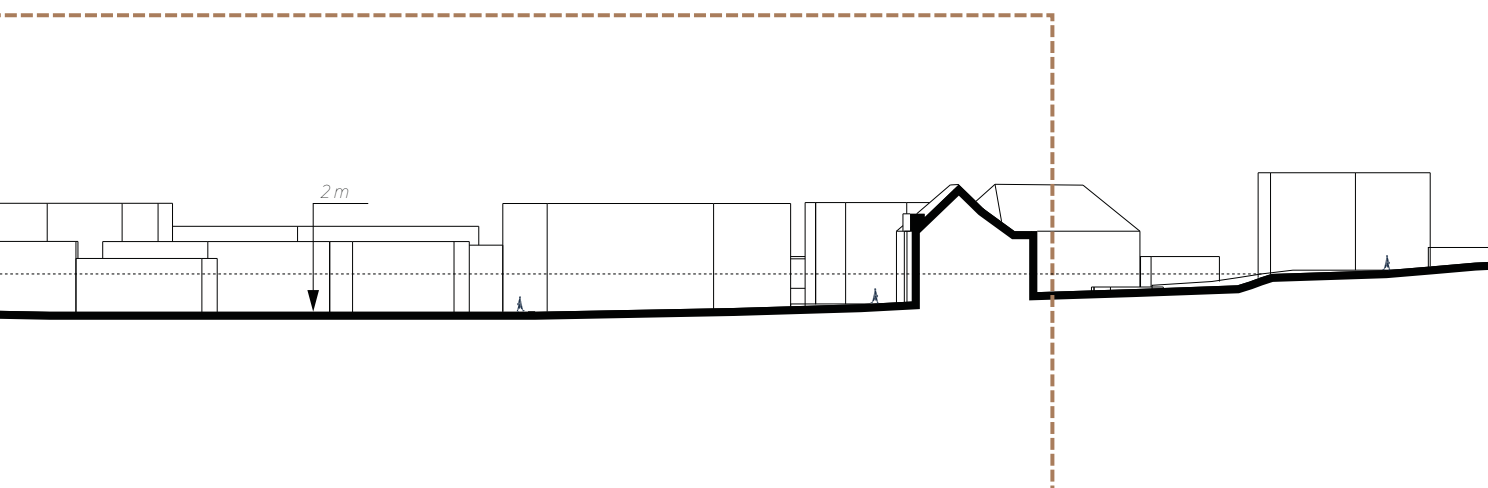


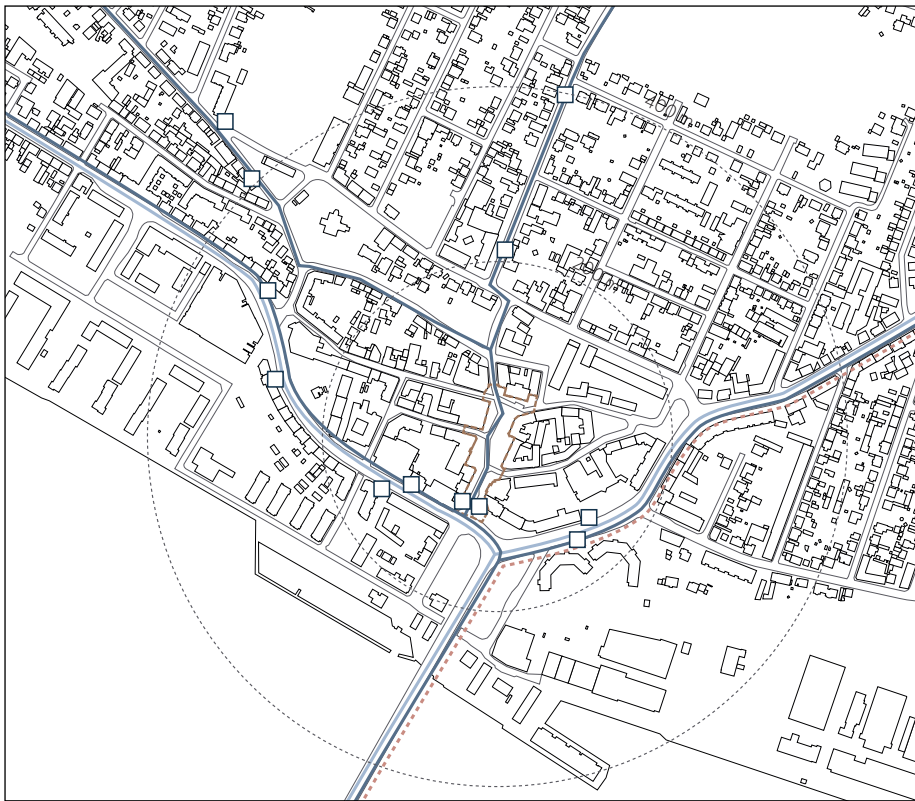
Illustration 16. Topographical section of site and context



*Illustration 17. Figure map of central Nørresundby*

## NØRRESUNDBY TORV





#### PUBLIC TRANSPORTATION

- Local bus route
- - - Regional bus route
- - - Potential BRT route
- Bus stop

Illustration 18. Public transportation in central Nørresundby

## Hard infrastructure

The historic city centre is framed by primary traffic roads. The roads Vesterbrogade and Østerbrogade distribute the hard traffic users out from Limfjordsbroen in a Y-shape as part of the regional mobility of Northern Jutland. The heavy amount of traffic cuts the historical city centre and site off from the waterfront and its recreational opportunities. Within the boundaries of primary traffic roads, a high amount of parked cars can be found, both in parking lots and along streets on either side. This gives a chaotic experience for pedestrians walking the streets. The parked cars also hinder visual orientation by blocking views. Furthermore, public transportation is represented heavily at the site – which can be seen as both positive and negative for the experience at the site. It is easy to reach Nørresundby Torv from Aalborg via local bus 17, which stops just off the bridge landing. Furthermore, the regional busses stop at Vesterbrogade and Østerbrogade. Every day, around 300 people use the bus stop Østerbrogade Aalborg Kommune,

2022), which makes it more used than Vesterbro in Aalborg, placed just next to the shopping streets of Aalborg City Centre.

### CONCLUSION

The high prioritisation of cars has consequences for soft road users. The roads at the bridge landing serve as a barrier between the historic city centre and the popular Nørresundby Harbourfront. Furthermore, the many cars, trucks, and buses travelling along the local road add to increased noise levels that pose a problem for inviting autistic users to the site. The local road at the site has negative qualities that call for closing it, however, it might be necessary to keep the local road due to its popularity – although soft road users should then be prioritised instead.





Illustration 19. Hard road user infrastructure

#### FREE PARKING



Short-term      Public

#### ROAD CLASSIFICATION



Traffic road Primary      Local road Primary      Local road Secondary      30 km/h zone

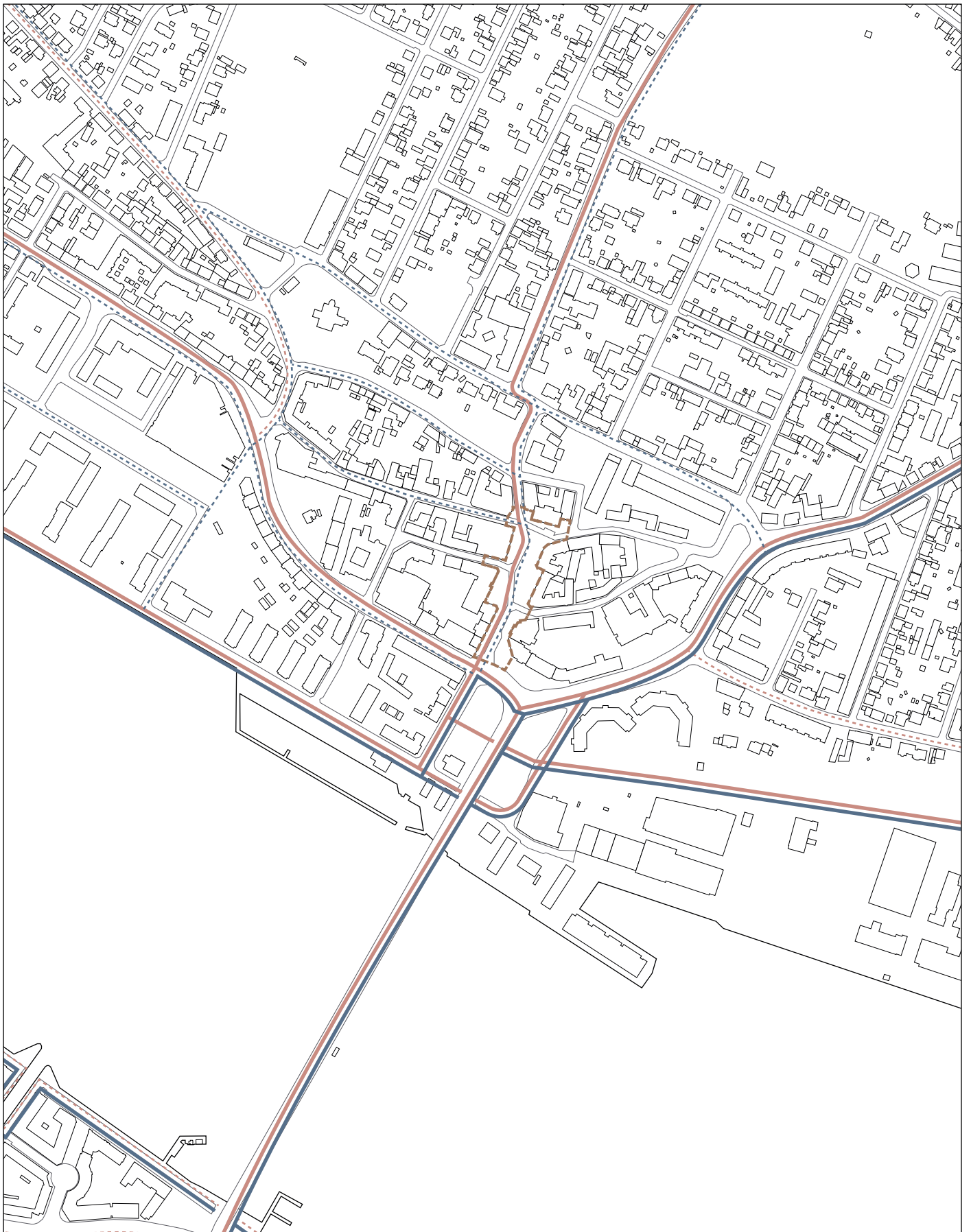


Illustration 20. Soft road user infrastructure

**PEDESTRIAN ROUTE**

**BIKE ROUTE**



Primary

Secondary

Primary

Secondary

## Soft infrastructure

Soft road users mainly move along the harbourfront and over Limfjordsbroen, while bike riders are more prone to move along the primary local road and traffic roads. Designated bike lanes are present at Vesterbrogade and Østerbrogade, but not along the local road through the site. Nørresundby Torv is mainly accessed by pedestrians from the west, while pedestrians from the east are attracted towards Limfjordsbroen and the harbourfront. Generally, the site seems to be a secondary location for soft road users, while the harbourfront is the main attractor.

### CONCLUSION

Soft road users don't seem to be attracted to the site, which might be because of the hard road users being heavily prioritised. It is therefore necessary to flip the current road user prioritisation to make Nørresundby Torv attractive for people to use and not just move through. The harbourfront and Limfjordsbroen are competing and winning against the site in attracting pedestrians. However, this does not mean that the site should compete against the harbourfront, rather it would be beneficial for both to collaborate and create synergy effects.



#### PUBLIC-PRIVATE OUTDOOR SPACES

- Public
- Semi-Public
- Private
- Semi-Private

#### FACADES

- Active
- Vacant / Dismissive

Illustration 21. Hard road user infrastructure

## Functions

The historic city centre, with its centre functions, is surrounded by mixed-use. At the ground floor level, shops and residential housing are the most widespread functions in the historic centre, with the most public-oriented functions located towards Nørresundby Torv and Østerbrogade.

Although the ground floors at the site are public functions like banks and shops, there is a difference in the activeness of the facades. Due to privacy issues of banks, there is no connection between the public outdoor space and the functions inside the buildings – apart from people using the ATMs. Two banks are situated on the western side of the site, creating a distinction between the eastern and western parts of the side.

The best way to describe the distribution of active facades is punctuated. Despite the many public-oriented functions at and near the site, only part of them has active facades that interact with the outdoor public spaces.

## CONCLUSION

The core of the historic city centre does not seem to be a coherently public area, but more punctured with private uses cutting off certain areas. Furthermore, there exists a competition between the library, health offers, and shops along the primary traffic road of Østerbrogade and the shops along the shared-space streets of Vestergade-Torvet-Skrågade. A competition that neither seems to win but rather destabilises Nørresundby City Centre as a district.

The punctuated nature of the active facades makes the site feel more abandoned than it is due to the constant presence of vacant and closed-off ground floors, making the site and context less attractive and welcoming towards users. In addition, shops and other public-oriented functions only utilise the outdoor areas within a 1-meter radius of their facades. This is largely due to space constraints given by the over-prioritisation of hard traffic, thereby limiting the movement of pedestrians and the placement of temporary urban furniture.



Illustration 22. Building function in ground floor



## Green and Blue structures

Major green structures are located mainly to the north and west of the site, while blue structures are to the south. The protected, historic park, Skanseparken, is located 500 meters north of the site and offers various landscape experiences with old trees, grass plains and romantic-inspired gardens. Furthermore, it offers fantastic panoramic views of Nørresundby, Limfjorden, and Aalborg.

Due to the central location in Nørresundby city centre, the green and blue structures near the site are mainly of urban character. Small pocket parks with benches and vegetation can be found both at Nørresundby Torv and near it, scattered across Nørresundby city centre, although not connected, making them more pleasant interruptions than actual spaces enjoyed by residents and visitors. Each of these small green structures has its own identity and style, ranging from paved streetscapes with water installations and seating arrangements to open grass plains with

scattered vegetation.

South of the site is Nørresundby Harbourfront with its marina and fishing spot beneath Limfjordsbroen. The harbourfront is primarily located west of Limfjordsbroen and continues all the way past Kulturbroen to the loosely programmed park, Lindholm Strandpark. The harbourfront between the bridges offers opportunities for walking along the water and sitting between young trees.

### CONCLUSION

The blue and green structures aren't really connected. Instead, they seem to be in competition with each other, with the harbourfront as the big winner, followed by Skanseparken. Nørresundby Torv would benefit from the attractive Skanseparken and Harbourfront by supporting a better connection between them.



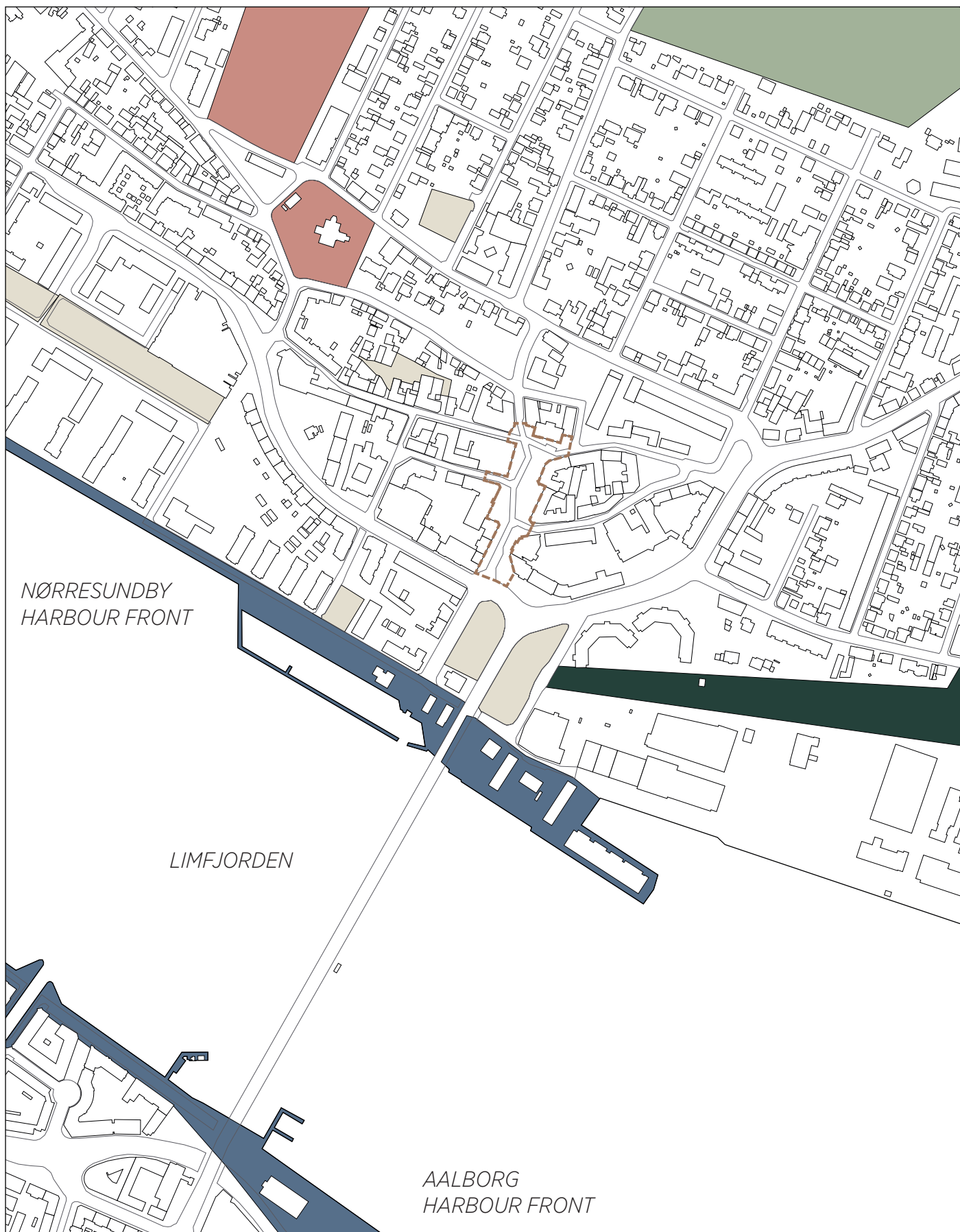
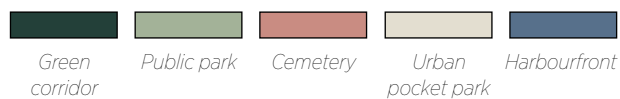
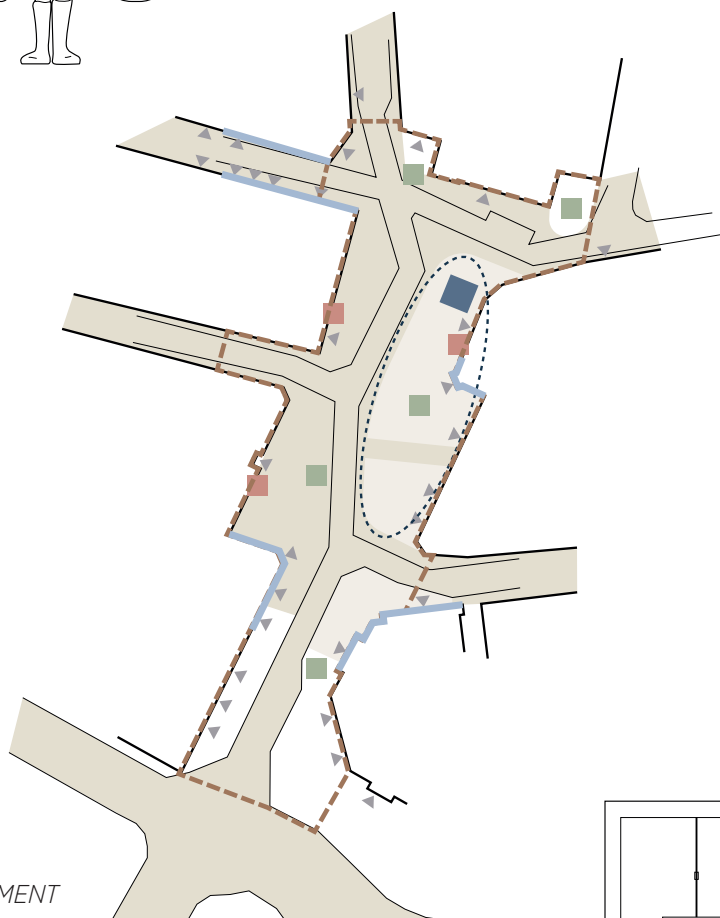


Illustration 23. Green and blue structures





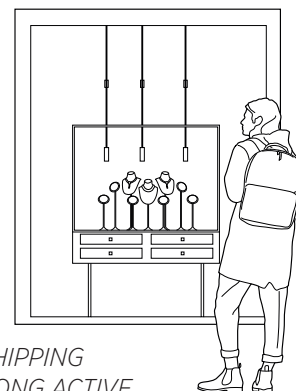
88 PEOPLE CROSS THE  
COBLESTONE ROAD IN 15  
MINUTES



PEOPLE REGULARLY STOP  
TO ORIENT THEMSELVES  
BEFORE MOVING ON

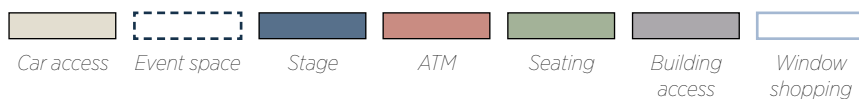


BIKE RIDERS AVOID  
COBBLESTONE PAVEMENT



WINDOW-SHIPPING  
OCCURS ALONG ACTIVE  
FACADES

Illustration 24. Observed activities at Nørresundby Torv





# Nørresundby Torv

Nørresundby Torv is the central square of Nørresundby City Centre, and, together with Vestergade and Skrågade, it provides the basis for everyday activities like grocery shopping, going to the hairdresser, or visiting the bank. Although many people visit Nørresundby Torv, most only use it for quick visits to run errands. Instead, it is the car users who dominate the square through opportunities to drive almost everywhere, even beyond the safety cones placed along the local road. The effects this heavy prioritisation has on pedestrians are explored in the following pages through a mapping of sensations at Nørresundby Torv and a storyboard addressing the experiences an autistic person has when moving through the square.

***”I couldn’t focus on her voice because another sound was dominating everything. A couple of tables behind me someone was clicking his pen, very slowly. For me, this sound was as much present as the speaker’s voice”***

*(Dumortier, 2002, cited in Kinnaer et al, 2016, p. 185)*

## Microclimate

The sensory differences in autistic people make them more susceptible to microclimatic conditions, such as noise and heat. Therefore, the microclimate of Nørresundby Torv has been analysed regarding noise levels, the impact of wind and sun, and the potential risks of flooding. Due to the many primary local and traffic roads, the site is engulfed in high levels of traffic noise, which for autistic people are especially unattractive and can even be hurtful to experience. During on-site sound measurements, it was found that the noise generated by car tyres moving on the cobblestone pavement of the local road is experienced worse than the traffic noise from the primary traffic roads at the bridge landing.

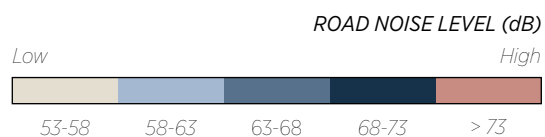
In especially the middle part of Nørresundby Torv, a high risk of flooding for a return period of 2 years exists because of the terrain differences seen in illustration 16. Nørresundby Torv is located at the bottom of the hill, Skansebakken. However, water can't flow into the fjord naturally because

of the elevated terrain supporting the bridge landing. Therefore, a large part of the site risks flooding on almost a yearly basis. However, it is worth noting that the blue spot analysis is based on a situation without sewage. Currently, the site is part of a combined sewage system that will be changed to separate in 2032, limiting the flooding issues at Nørresundby Torv.

Nørresundby is known as the sunny side, which is evident at the site. During the summer, the site is basically without shadow. During winter, however, the site is more shaded but still with good sun conditions. Furthermore, the wind direction supports the feeling of higher temperatures at Nørresundby Torv by being more sheltered from the wind than, for example, the harbour front, making the site potentially more attractive than the harbour front during higher wind speeds.



Illustration 25. Traffic noise



## DIRECT SUN HOURS

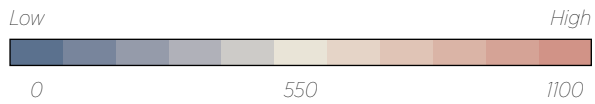
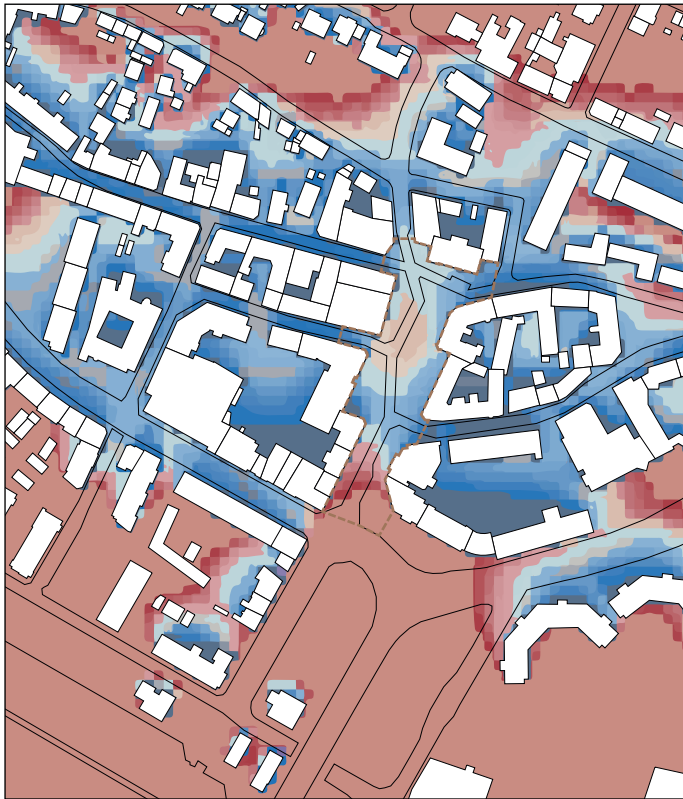


Illustration 26. Direct sun hours during summertime



## WIND SPEED (m/s)

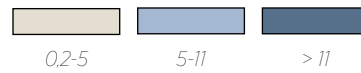


Illustration 28. Average wind speed and direction

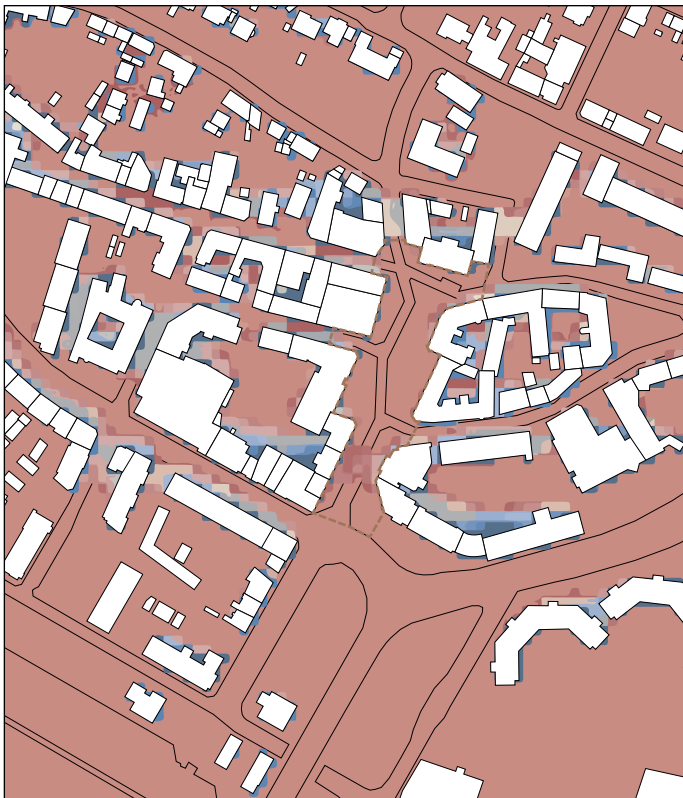
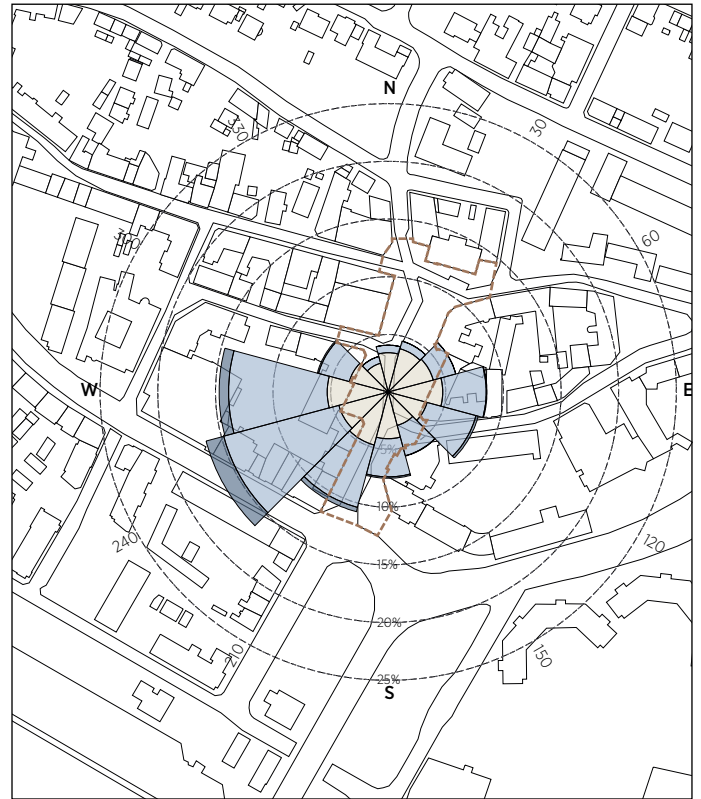


Illustration 27. Direct sun hours during wintertime



Illustration 29. Bluespot for a return period of 2 years (15mm)

## CONCLUSION

Protective measures are necessary to decrease the noise level at the site for it to be considered a safe space for autistic people due to their sensory sensitivities towards noise. The issues regarding noise are not only generated by traffic but also the contact between traffic and road pavement. The acoustic quality of materials, especially pavements, is important to consider. Furthermore, some sounds generated from moving along certain pavements can even be pleasant, for example, when walking on gravel. In addition, the risks of flooding come not only with constraints but can also be seen as giving potential qualities to the site. Water can be used for adding recreational value and to stimulate sensory experiences, for example, through sounds created by water installations.

The high amount of sun hours is, in a Danish context, viewed as especially attractive. With the temperature rising, and people at this latitude increasingly seeking shade during the summer, the very sunny site creates potential for implementing interesting shading areas for people to enjoy.

It is worth noting that the wind data stems from measurements at Aalborg Airport (Cappelen & Jørgensen, 1999) which is a different context than that of Nørresundby Torv. Therefore, it is necessary to consider the experiences at the site, since the shape of the buildings and terrain plays a significant role in the wind experiences at the site.

***”Reality to an autistic person is a confusing interacting mass of events, people, places, sounds and sights. There seem to be no clear boundaries, order or meaning to anything”***

*(Grandin, 1995, cited in Kinnaer et al, 2016, p. 186)*

## Sensing the place

The characteristics and immediate sensations of Nørresundby Torv were mapped during site visits to gain a phenomenological understanding of the site. As illustration 30 shows, many sensory inputs are experienced at the square, although most are centred around visual and auditory stimuli together with the at times confusing mobilities situation. The most significant element at Nørresundby Torv is the safety cones placed along the cobblestone local road. Although the initial impression is that the cones separate heavy and soft traffic users, the case is that short-term parking and access to semi-private courtyards allow for cars to access the space first thought to be for pedestrians only. When moving through the site, an alertness is ever-present, together with the confusion that arises from visual overstimulation.

### CONCLUSION

The findings of the mapping show the necessity for making it legible which spaces are for which mobilities users, both because of physical safety concerns and supporting feelings of safety for the pedestrians moving through the square. Furthermore, a clear structure of the spaces and their opportunities can help limit the risks of visual overstimulation by providing a logic for the organisation of the square.

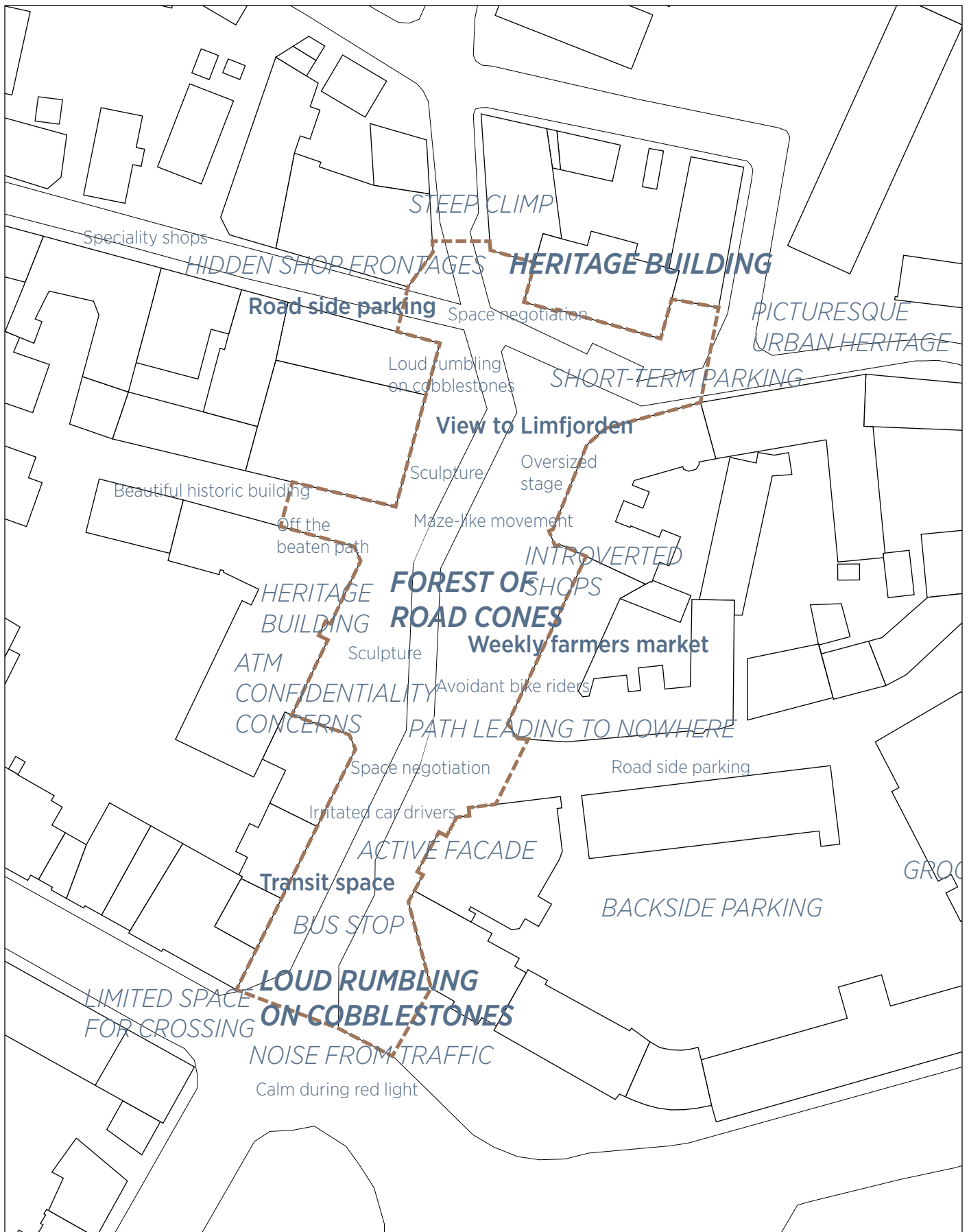


Illustration 30. Mapping of sensory experiences at Nørresundby Torv



**Architectural  
focal point**

**Wayfinding**

*Pausing*

*Attention zone*

*Bumbling noise*

**Semi harsh barrier**

*Guiding pedestrian flow*

*Illustration 31. Storyboard view 1: First impressions of Nørresundby Torv*

## Experiences

When visiting the site as an autistic person, the first word that comes to mind is chaos. The sense of chaos is experienced through the rumbling of the car tyres on the cobblestone pavement that together with the constant traffic noise at the bridge landing adds to a sense of overwhelm. The unwelcome sounds of the traffic set the tone for the stress level experienced when moving from one corner of Nørresundby Torv to the next. However, the sounds are necessary for orientation, since they alert the body about incoming traffic and serve as a reminder to look both ways before crossing the cobblestone road. Normally, the motion of moving the head from side to side while focusing on the visual cues for safe crossing is only one specific action. But the clusters of information at the site from for example road signs, benches, safety cones, trees, and at least four different types of pavement blur the visual information into one large cluster with no starts or endings. This results in the act, of orienting by moving the head from side to side, being performed constantly to make sure each step can be taken safely – without being hit by a car driving along the cobblestone road or turning in front of a building to park. The safety concerns are not limited to cars,



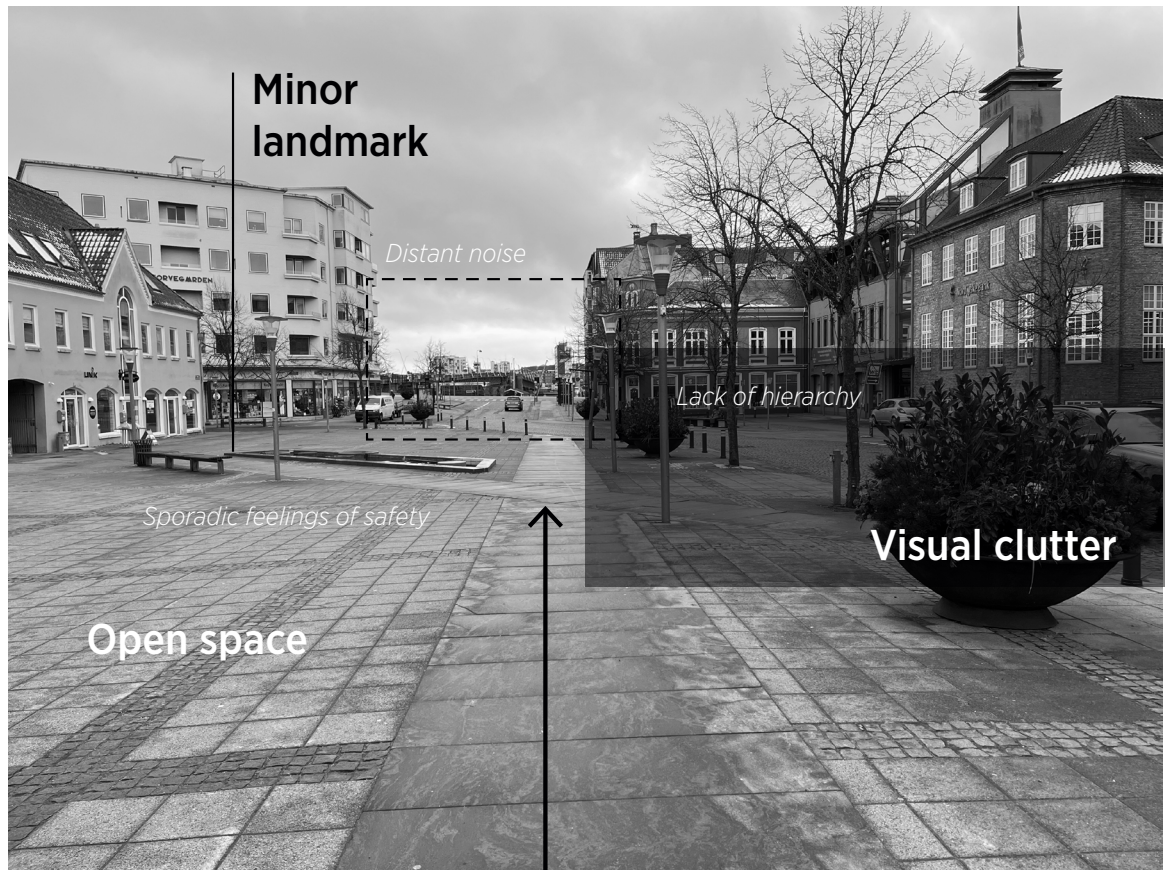


Illustration 33. Storyboard view 3: A safe route?

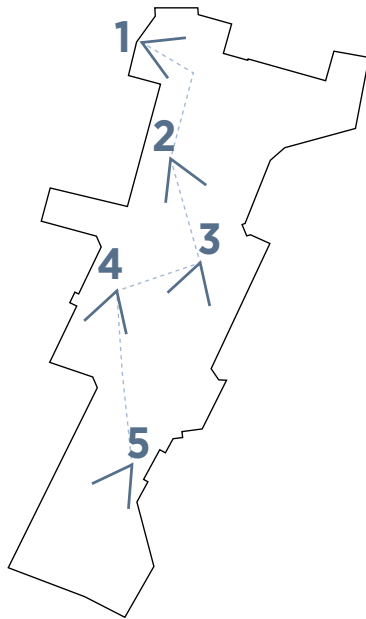


Illustration 32. Location and direction of storyboard images

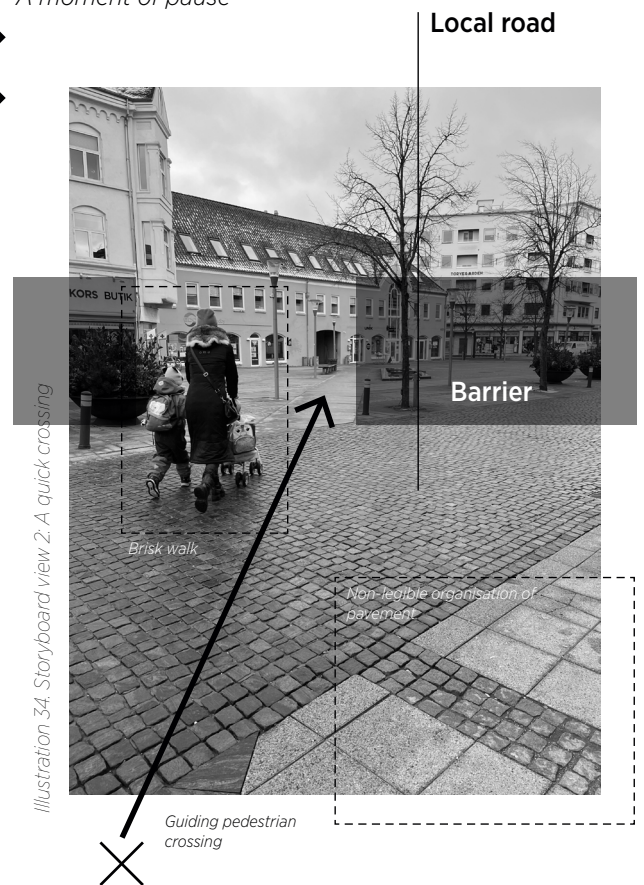


Illustration 34. Storyboard view 2: A quick crossing





Illustration 35. Storyboard view 4: Another space for cars



Illustration 36. Storyboard view 5: Leaving Nørresundby Torv

***”It is hard to know where you can go since the road  
and the square has very similar colors”***

*Local autistic woman (see appendix 1)*

buses, or trucks but also include bike riders and fellow pedestrians. The cobbled roads are not attractive for the bike riders to use, instead, they follow the granite pavement that cuts through the open places of Nørresundby Torv and beyond the roads. Amidst the visual and auditory chaos, the granite slabs also serve as the only safe holding point at the site which is routinely compromised by bike riders avoiding the cobblestone pavement of the local road.

Although fellow pedestrians don't move as fast as heavier road users, they move even more mysteriously through the site. They move with a swiftness that can only be interpreted as them knowing where they are going – as opposed to the autistic person who is becoming more and more disoriented as the head moves from one side to another and back again to constantly look out for danger. Nowhere is it possible to stop and look around for a moment to center the body and recalibrate to gain some sense of orientation and place in the space, before a new person or bike rider calls for attention and requires their transit path cleared.

From the safety of the side roads leading to Nørresundby Torv, it seems at first a simple space with one large open space divided into two sides by a local road, however, when urban life is taken into account the space becomes more and more chaotic, disorienting, and cluttered as the autistic body moves through the space with no safe

escapes.

The facades that enclose the site are together with a couple of benches the only way of escaping from the openness where all the noises, smells, and moving elements seem to roar. However, the facades seem more hostile than safe by being either active shop windows or private banks. The facades demand two completely opposite behaviours from the autistic person. The shop windows require interaction, while the banks require distraction and no contact. The contradictions present at the site add to the confusion for the autistic person regarding what performance is expected. Nørresundby Torv is therefore not experienced as a space for recreation or relaxation for autistic people, but rather a place to avoid or at best power through.



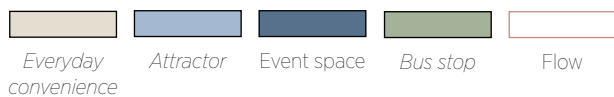


Illustration 37. Strengths

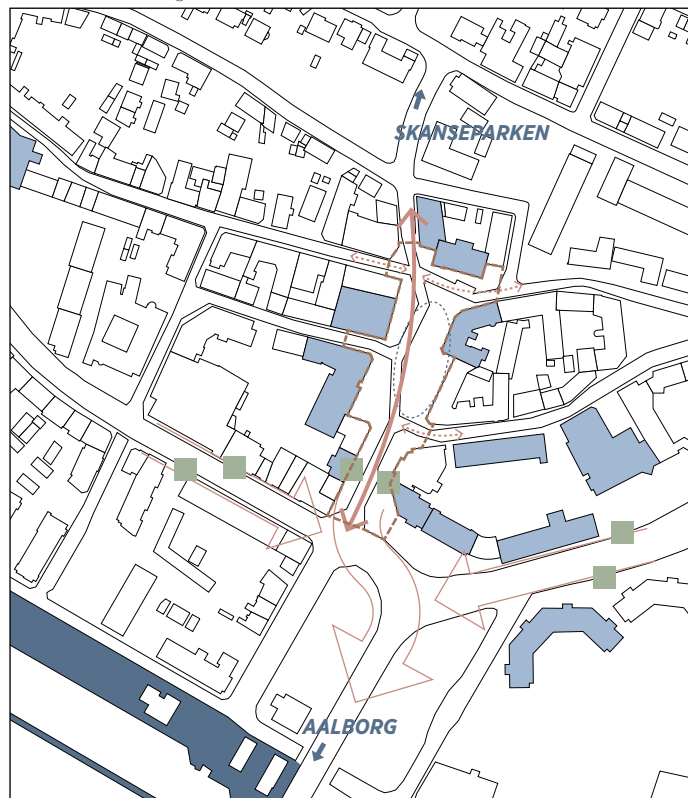


Illustration 38. Weaknesses

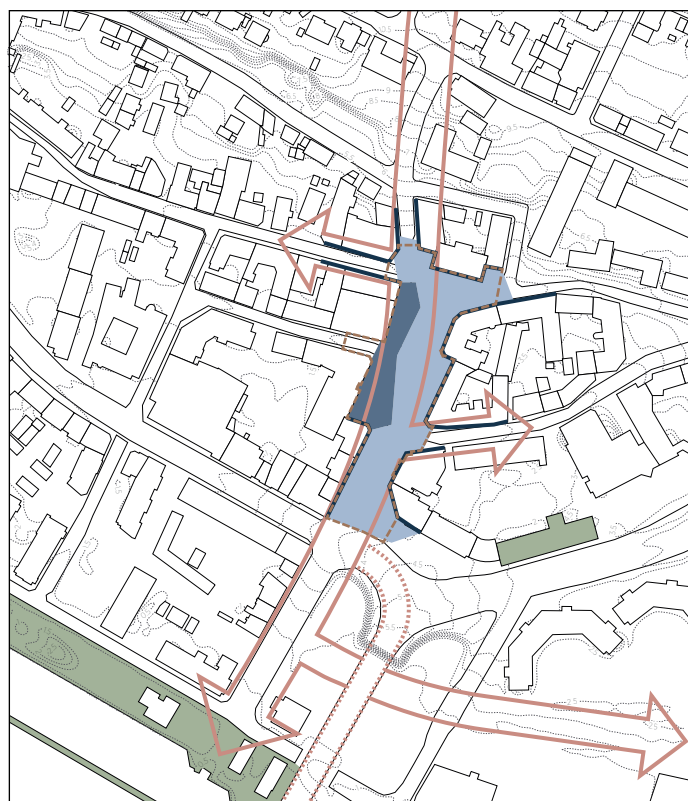
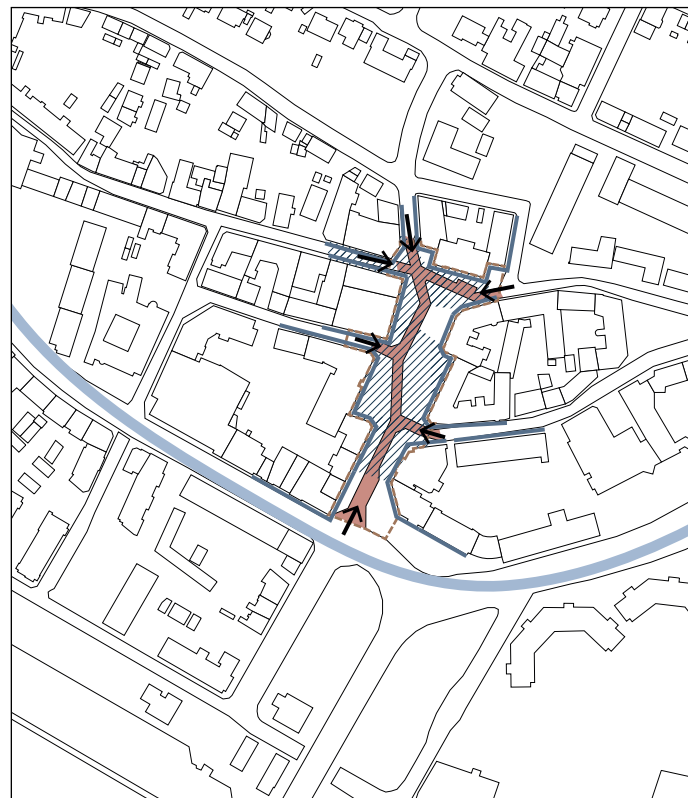


Illustration 39. Opportunities

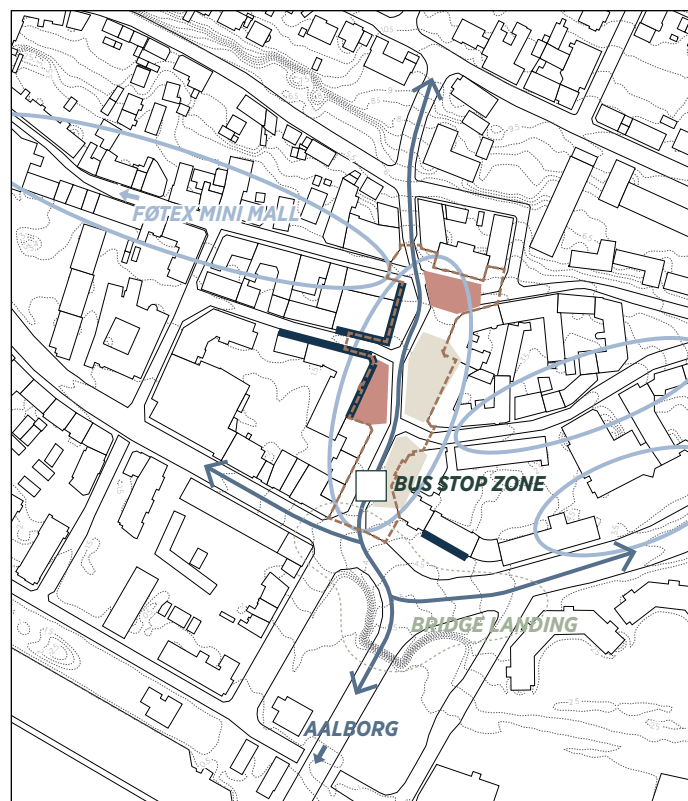
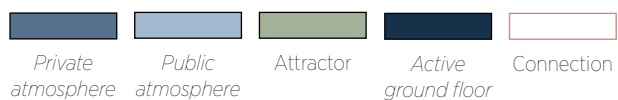


Illustration 40. Threats





03

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*TRACE*

## **Connecting the Pieces**

The following chapter will present the vision and problem statement for the design proposal, followed by an outline of design considerations, that are relevant when designing urban spaces for autistic people, as well as site-specific design considerations that address the insights from analyses.

The design considerations have guided the design process, with the division of the design considerations helping to balance the duality of the project, which is that of both accommodating autistic people as well as ensuring that Nørresundby Torv is revitalised into the central square of a vibrant and robust city centre. The chapter will end with a conclusion on how these two seemingly opposite objectives have come together to shape the transformation of Nørresundby Torv into a vibrant square for autistic people to partake in urban life on their own terms.



*Illustration 41. Yin and Yang symbol*

## **Balance**

The principle of Yin and Yang is that all things exist as inseparable and contradictory opposites. A pair of equal opposites can be seen illustrated in the symbol as opposites who both attract and complement each other. Each side has at its core an element of the other. Neither pole is superior to the other, however, a balance between the two must be reached to achieve harmony, since an increase in one brings a corresponding decrease in the other. (Cartwright, 2018)

Within the autistic population, a contradictory duality also exists, that of hyper –and hyposensitivities towards sensory stimulation. To promote autistic well-being it is therefore necessary for spaces to contain the two opposites and have them work together to create a balanced space that is truly inclusive for autistic people.



*How can Nørresundby Torv be transformed  
to accommodate autistic people  
by limiting risks of sensory overstimulation  
and have the opportunities to engage  
in the vibrant city centre of Nørresundby  
on their own terms?*

## Vision

Autistic people face barriers to participating in urban life that are invisible to non-autistic people because of differences in sensory perception that amplify both positive and negative experiences. The vision is to accommodate autistic people at Nørresundby Torv in such a way that they avoid sensory overstimulation and consequently burnout. In doing so, the project will help increase the well-being of the local autistic residents – although acknowledging that societal structures are needed to make a lasting impact on the greater autistic population. It is, however, the aim of the thesis project to inspire urban designers through the transformation of Nørresundby Torv to include autistic and neurodiverse needs and concerns while illustrating how accommodating autistic people also have positive impacts on the wider population. Through the design proposal, Nørresundby Torv is transformed from a space of necessity to a place of excitement. The qualities needed for autistic people to thrive in public spaces, like clear organisation and opportunities for escape, are qualities enjoyed by non-autistic people. The autistic accommodations will therefore aid in making Nørresundby Torv and the wider city centre of Nørresundby a vibrant area and co-contributor to urban life in Aalborg-Nørresundby.

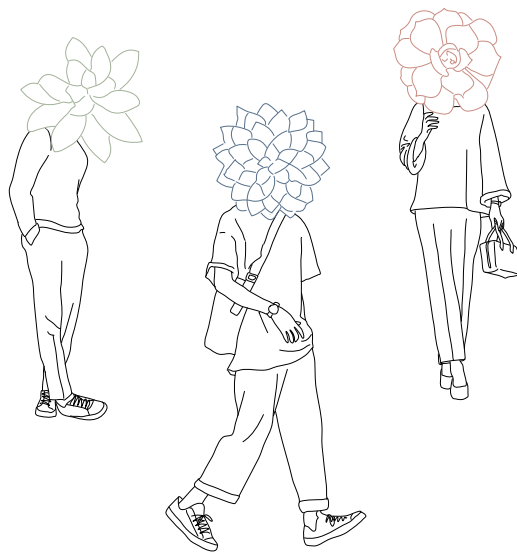


Illustration 42. Different ways of being autistic

# Autism

To understand how to best transform Nørresundby Torv into an inclusive space for autistic people, it is necessary to first establish the specific actions required to design urban areas for autistic people.

- *Provide escape spaces that the user, in case of overstimulation or distress, can retreat to and recharge without risking interruption and further challenges*
- *Cater to the sensory differences in autistic people by providing opportunities for both sensory-seeking and sensory-avoiding individuals*
- *Provide visual and sensory cues for the user to understand what is expected of them without ambiguity by defining and limiting activities based on their function and sensory qualities*
- *Provide transition spaces between different stimuli areas that give the user the opportunity for momentarily sensory recalibration*
- *Promote independence and agency by providing opportunities for autistic people to take part in urban life on their own terms by limiting stigma and low self-esteem through education on autism for both autistic and non-autistic people*

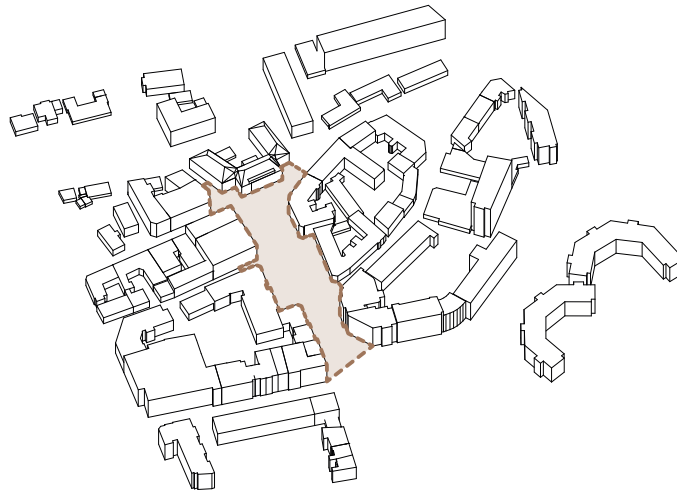
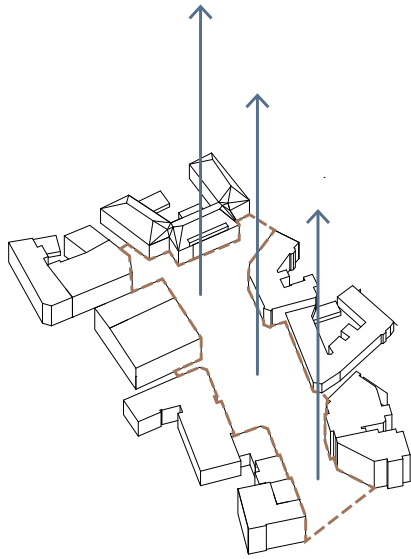


Illustration 43. Site of Nørresundby Torv

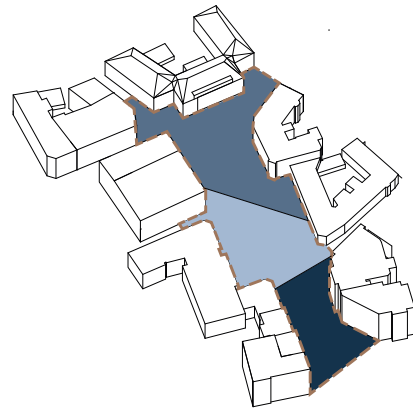
## Site

To transform Nørresundby Torv into a vibrant city centre for autistic people on their own terms, it is necessary to also include site-specific design considerations to address current issues of Nørresundby and enhance its potential.

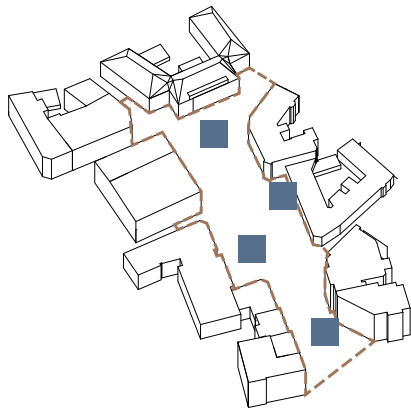
- *Create physical and psychological connections between the site and significant urban locations, such as Nørresundby Harbourfront, Autismcenter Nordbo, Aalborg City Centre, Stigsborg, and Skanseparken.*
- *Clearly define spaces for each mobility user, with pedestrians being prioritised the most by removing parking, limiting car access to the site, and providing safe opportunities for pedestrian crossings of roads.*
- *Provide open, loosely programmed spaces for events, such as markets, political gatherings, and concerts*
- *Increase the level of interaction between indoor and outdoor activities by allocating space for building uses to extend out into the public space*
- *Highlight respectfully the history of the site as the central square of Nørresundby and its connection to Aalborg across the Fjord*



1 // REMOVING OVERSTIMULATORS



2 // SENSORY ZONING



3 // PROVIDE OPPORTUNITIES FOR ENGAGEMENT AND RECALIBRATION

Illustration 44. Transformation concept for Nørresundby  
 Torv: From a hostile environment to an inclusive City Centre





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*ARTWORK*

## **Presenting the New Image**

In the following chapter, the design proposal for the transformation of Nørresundby Torv will be presented, showing how it has changed from a hostile transit space into an inclusive, vibrant city centre. Firstly, the overall strategies that have guided the design will be presented following an overview of how Nørresundby Torv has transformed on a structural level and how these changes are experienced by the user group of sensory-seeking and sensory-avoiding individuals. Followed by a presentation of how the three strategies of sensory experiences, legibility, and connectedness have influenced the design proposal and how they shape the experiences at Nørresundby Torv. Lastly, the design process and considerations of getting to the presented design proposal will be outlined for a deeper understanding of the transformation of Nørresundby Torv.

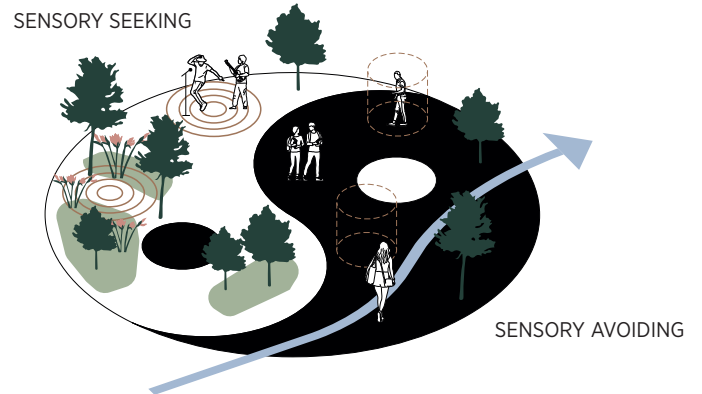


# Intro

Nørresundby Torv is transformed into a square with a range of diverse opportunities for both hyper and hypo-sensitive individuals to accommodate the heterogenic group of autistic people as well as the general non-autistic population. This is achieved by organising the site into low and high stimuli areas together with opportunities for either increasing or decreasing the sensory stimuli. Sansehaven offers a calm backdrop for everyday life through lush greenery and scattered refugiums that offer a safety net during stressful situations. If one rather seeks high-intensity sensory stimuli, this can be experienced at Markedspladsen, where a weekly market offers rich aromas and flavours together with exciting things to browse through. Furthermore, an attractive supplement to the city centre of Aalborg is provided along Gågaden, which connects the local Føtex mini-mall with Nørresundby Torv. A large pedestrian crossing zone allows for crossing the bridge landing from all directions, thereby promoting a safe walk down to the harbour front from Nørresundby Torv. Rather than being a competitor to the city centre and harbourfront of Aalborg, Nørresundby Torv acts as a catalyst for a thriving local everyday life for both autistic and non-autistic residents of Nørresundby.



Illustration 45. Masterplan of design proposal 1:1000, with placement of sections and zoom-in plans



*Illustration 46. Design strategy for Sensory Experiences*

### **SENSORY EXPERIENCES**

Dangers of autistic burnout due to over – and understimulation are prevented by providing opportunities for both sensory-seeking and avoiding activities at Nørresundby Torv. Such division of sensory experiences accommodates not only autistic people but also addresses the general public's varying preferences.

# Design Strategies

Nørresundby Torv respects and supports the heterogenic nature of autism together with the acknowledgement of the inherent differences between autistic and non-autistic people. Therefore, the vision of balance between opposites from the notion of yin and yang is integrated into the design strategies. The three design strategies each contain dualities which are integrated to ensure that not only certain autistic people but also everyone else is given the opportunities to thrive at Nørresundby Torv.

PROGRAMMED

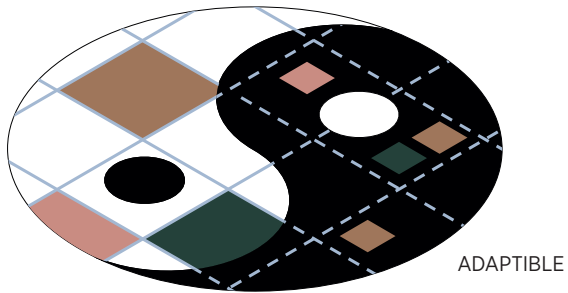


Illustration 47. Design strategy for Legibility

### LEGIBILITY

To minimise confusion and risks of overwhelm, Nørresundby Torv is organised into both clearly defined and unprogrammed spaces. Acknowledging the need for predictability while allowing life to unfold in surprising ways.

UNIQUE

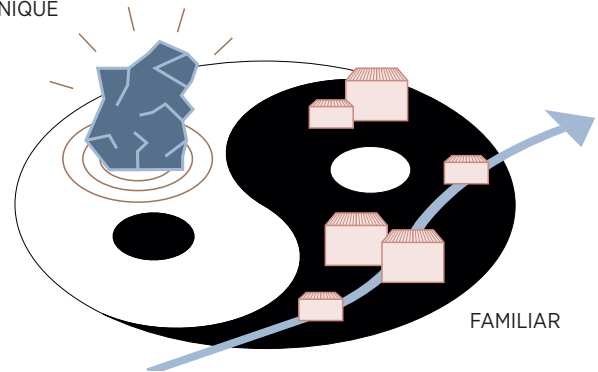
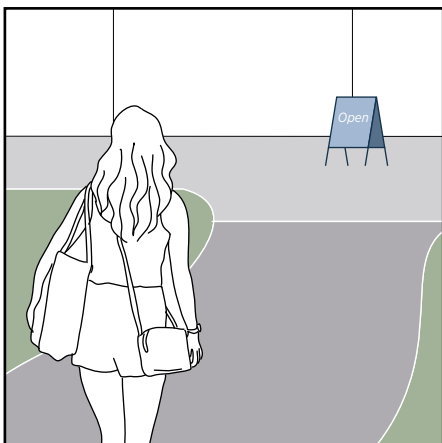


Illustration 48. Design strategy for Connectedness

### CONNECTEDNESS

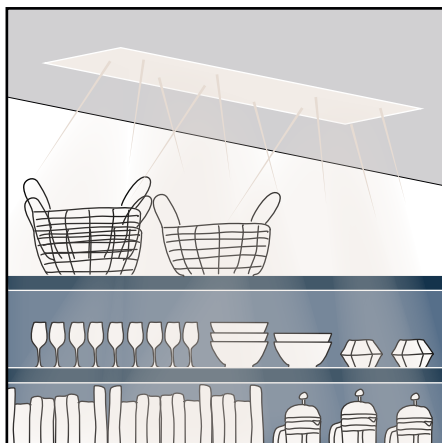
Connections can be both physical through easy movement and psychological regarding the image and identity of buildings and spaces. Even though everyday life is often repetitions of the same routine, life is more than this, making it necessary to create distinctions and allow for individuality to thrive.

## ACCOMMODATING SENSORY AVOIDERS



### OFF THE BEATEN PATH

Taking the alternative routes through Sansehaven on the way to do the weekly shopping in the supermarket



### RUNNING ERRANDS

Doing the weekly shopping inside the supermarket with risks of overstimulation due to lighting, shop layout, and people

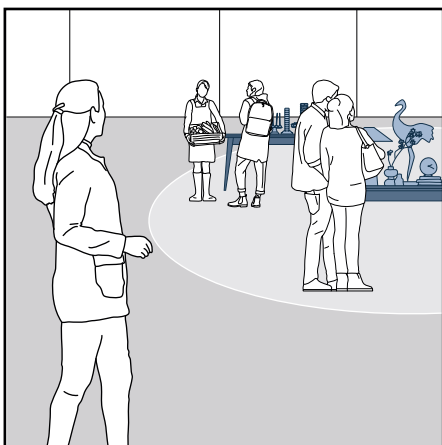


### A STOP FOR RECOVERY

Relaxing the body and mind by sitting in the refugium for a few minutes before continuing the rest of the errands of the day

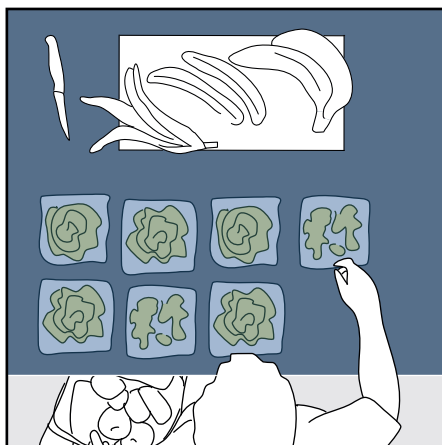
*Illustration 49. Everyday scenario for sensory-avoiding individuals*

## ACCOMMODATING SENSORY SEEKERS



### THINKING TIME

Observing the local market and its flow of people before deciding to participate as well



### BROWSING THE MARKET

Moving slowly through the crowds while looking at and buying locally produced foods



### MAKING CONVERSATION

Stopping to chat with friends who are also out and exploring the local market

*Illustration 50. Everyday scenario for sensory-seeking individuals*

# Everyday Accessibility

The transformation of Nørresundby Torv into an inclusive place for autistic people without alienating them from general urban living is achieved by respecting the differences between autistic and non-autistic people as well as the diversity within the autistic population. Therefore, Nørresundby Torv accommodates both sensory-avoiding and sensory-seeking individuals, which includes both autistic and non-autistic people.

## SENSORY AVOIDING

A sensory-avoiding individual is someone who is hypersensitive to sensory stimuli and requires either low stimulation levels or opportunities for recovery after short periods of high stimulation.

At Nørresundby Torv, it is possible to take an alternative route to the more direct connectors of Nørresundby City Centre. Along the alternative routes, which differentiate in their pavement, one can run errands without getting overwhelmed before entering the store. Even though the transformation of Nørresundby Torv is limited to the outdoor public space, and therefore overstimulation is a great risk when entering shops, recovery opportunities are given at the square through refugiums of varying sensory and privacy levels that can help calm the nervous system and

limit the consequences of overstimulation, promoting independence and engagement in urban life by limiting ill-being and the need to rely on others.

## SENSORY SEEKING

Sensory-seeking individuals prefer, as the name suggests, high levels of stimulation and, if understimulated, experience the same great distress as hypersensitive individuals do when overstimulated. Sensory-seeking individuals require a diverse range of opportunities for complex sensory stimulation.

At Nørresundby Torv, it is possible to experience high stimuli in several ways, one of which is at Markedspladsen, located just next to the part of Gågaden that runs through Nørresundby Torv. Although one might seek sensory stimulation, it doesn't necessarily mean that all stimuli are good. Therefore, it is possible to observe at a distance before deciding to join the activities. During summertime, Markedspladsen transforms into a farmers market every week, offering ever-changing experiences filled with different colours, textures, sounds, tastes, and smells that can be experienced when browsing through market stalls.

# Opportunities

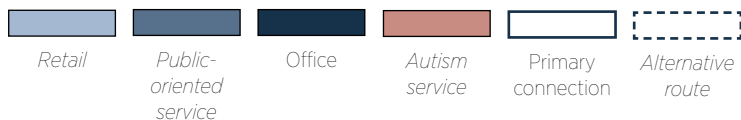
At Nørresundby Torv different opportunities are provided for addressing capabilities that promote well-being. Across the square refugiums are located for stress relief that can help counter the health issues of long-term stress. Furthermore, the scale of the refugiums give a clear sense of a personal space, which promotes control over one's environment outside the comfort of one's home as well as safety in knowing that this space is different from the public space, therefore limiting risks of others unintentionally violating one's personal boundaries. At the Autismecenter Nordbo Café, autistic people are given a safe space for them to express their authentic selves with other autistic and non-autistic people through different social gatherings. The café also serves as a way of making autistic people aware of a place for help and support in everyday life through coaches that can help with the planning and organising of everyday life such as getting an education or entering the job market.







Illustration 52. New zones and connections 1:4000



## Connections

Nørresundby Torv promotes a connection between Skanseparken and across the bridge landing towards Stigsborg, Aalborg, and the harbour front, which can be taken either through a high or a low stimuli area of the square. Alternative routes are also provided for people who want to avoid bigger crowds and road noises. These are supported by existing passages that connect Nørresundby Torv with semi-public courtyards. Furthermore, a coherent shopping street connects the Føtex mini-mall with Nørresundby Torv, which, together with a pedestrian prioritised crossover at the bridge landing, allows for a pedestrian loop along the harbour front back to the mini-mall.

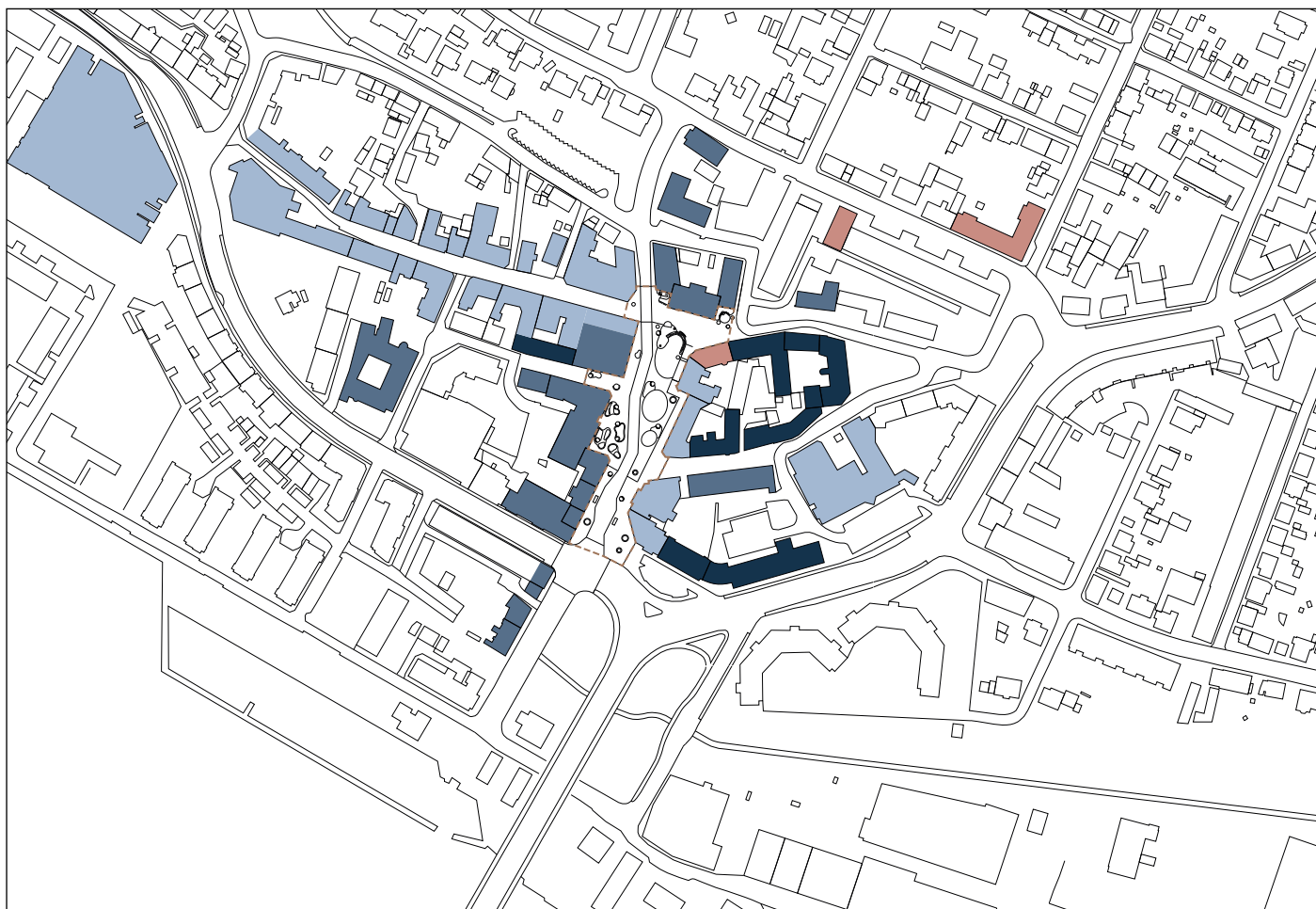
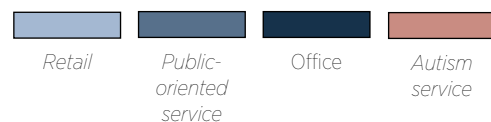


Illustration 53. New functions 1:4000



## Functions

Many of the existing ground floor functions at and near Nørresundby Torv are preserved, however, some are relocated to sustain a vibrant city centre. Shops are relocated from Skrågade to Gågaden to support a unified shopping experience of active frontages from the Føtex mini-mall to Nørresundby Torv. Furthermore, the library has been moved closer to Nørresundby Torv to give it a more public and exposed location. Thereby diversifying the functions at Nørresundby Torv and promoting a more robust city centre.

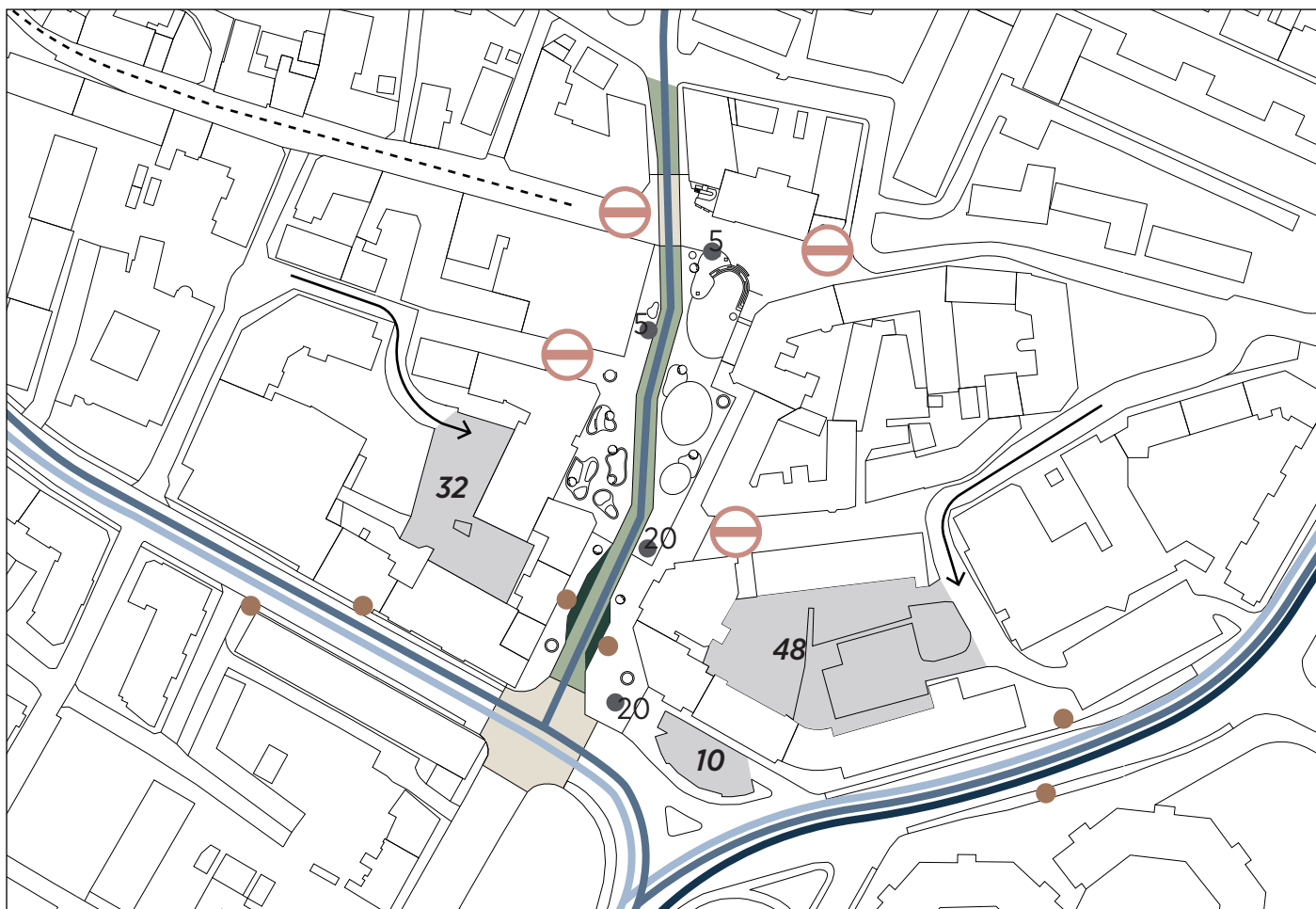


Illustration 54. A new mobilities situation 1:2000



## Mobilities

Nørresundby Torv is located near a critical node in both the local and regional network. The existing local road going through the square has been preserved to address concerns from local business owners, however, the cobblestone pavement has been replaced with asphalt to limit the painful noise levels from the traffic and changed into a bike street. To soften the current barrier of the bridge landing, and connect the harbourfront better with central Nørresundby, different actions have been taken to ease the movement of soft road users. A large coherent pedestrian crossing zone is established at the bridge landing, allowing pedestrians to cross from all directions during green light. Furthermore, the current placement of the bus stop at Nørresundby Torv is preserved, however, expanded with a bus pocket to minimise traffic jams. Lastly, car access to Nørresundby Torv has been limited through the closing of several roads that instead lead into public parking lots.

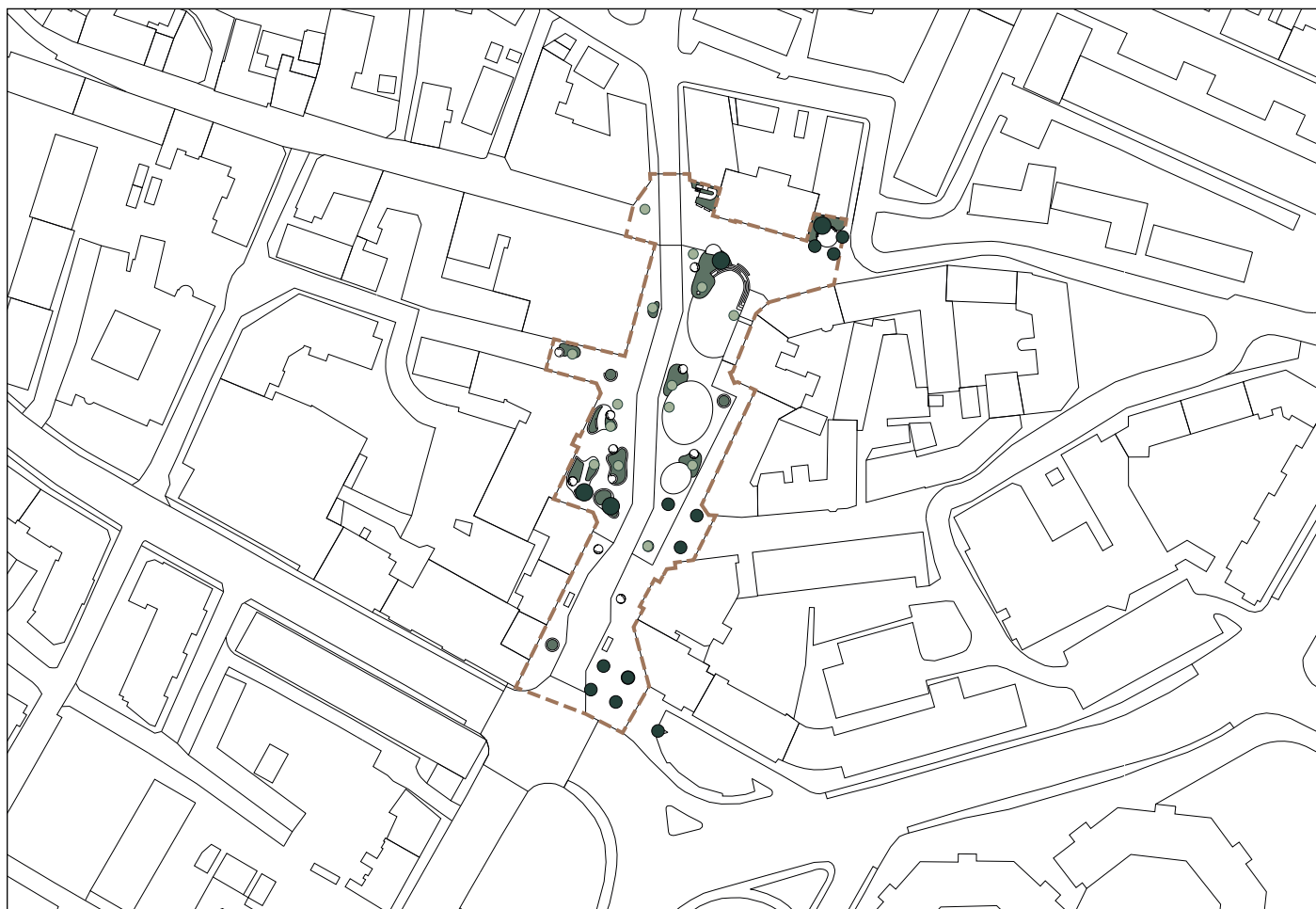


Illustration 55. Vegetation 1:4000



## Vegetation

Most of the existing trees at Nørresundby Torv are preserved, which gives opportunities for shade and animal activity from the beginning. Some trees stand alone as focal points, while others are grouped with vegetation beds of plants and other trees. Nature is utilised as a catalyst for sensory experiences at Nørresundby Torv, with flower beds providing opportunities for enjoying their scents and tall grasses inviting to feeling their varying textures. Furthermore, vegetation beds and trees act as dividers of the spaces and help guide the flow.





Illustration 56. Rendering of Sansehaven



Illustration 57. Rendering of Sansehaven



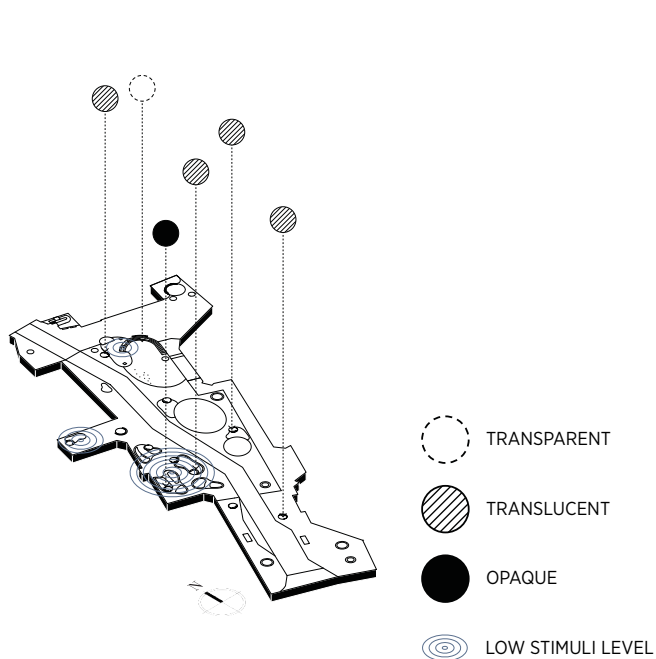


Illustration 58. Opportunities for sensory-avoiding

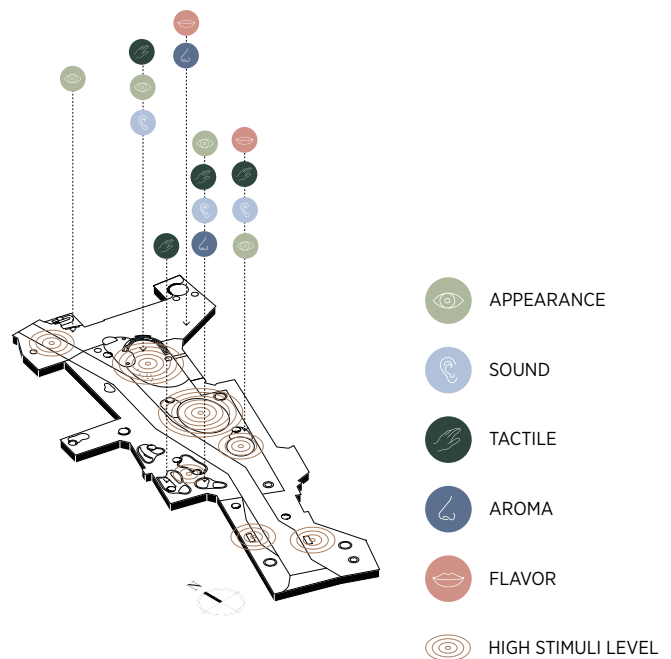


Illustration 59. Opportunities for sensory-seeking

## Sensory Experiences

For an autistic person, their experience of a good urban space is often dependent on the sensory stimulation levels. Therefore, sensory experiences are a central part of the transformation of Nørresundby Torv, which is organised into high and low-stimulation areas. Sansehaven offers a space for low stimulation with high vegetation beds sheltering this part of the square from the bike street and the high stimulations of Markedspladsen and Gågaden. Furthermore, individuals can tailor the sensory experience by either increasing the sensory stimulation through sensory-seeking opportunities or decreasing the level through sensory-avoiding opportunities.

Sensory-seeking opportunities are provided throughout the square, engaging all five senses, like smelling the flowers while walking along a quiet path in Sansehaven or listening to the water installation between Rådhustrappen and Markedspladsen. If everything becomes too overwhelming or to avoid it ever getting to that, refugiums can be found in both low and high-

stimulation areas. The refugiums differ in their transparency, ranging from a subtle step back from the busy shopping street to a secluded sheltered spot.

The different sensory experiences offered at Nørresundby Torv provide the basis for autistic people to achieve everyday necessities like taking the bus or doing the groceries without jeopardizing their well-being because of chronic overstimulation. Furthermore, the sensorial differentiation does not just benefit autistic people but also non-autistic people who might want to attend the weekly farmers market at Markedspladsen or have a quiet stroll through Sansehaven on their way to the harbour front. The sensory experiences provided at Nørresundby Torv respect the individual preferences and needs of both autistic and non-autistic people by having both sensory-seeking and sensory-avoiding opportunities.



# Sensory Qualities

The sensory-seeking opportunities at Nørresundby Torv appeal to the five senses by providing sensory qualities of sound, appearance, aroma, flavour, and tactility. Sensory qualities are most complex within high stimulation areas, which at Markedspladsen can be experienced as ranging from smelling and tasting food at the Autismecenter Nordbo Café or during the weekly farmers market to hearing the bustling of fellow shoppers while looking at the outdoor shop displays along Gågaden. Differently is it in the low stimuli areas, where the sensory qualities are simple, often with only one sense in focus, which can be experienced along a specific path in Sansehaven between the trees and shade from buildings, where flowers emit a pleasant scent that invites to deep breaths.



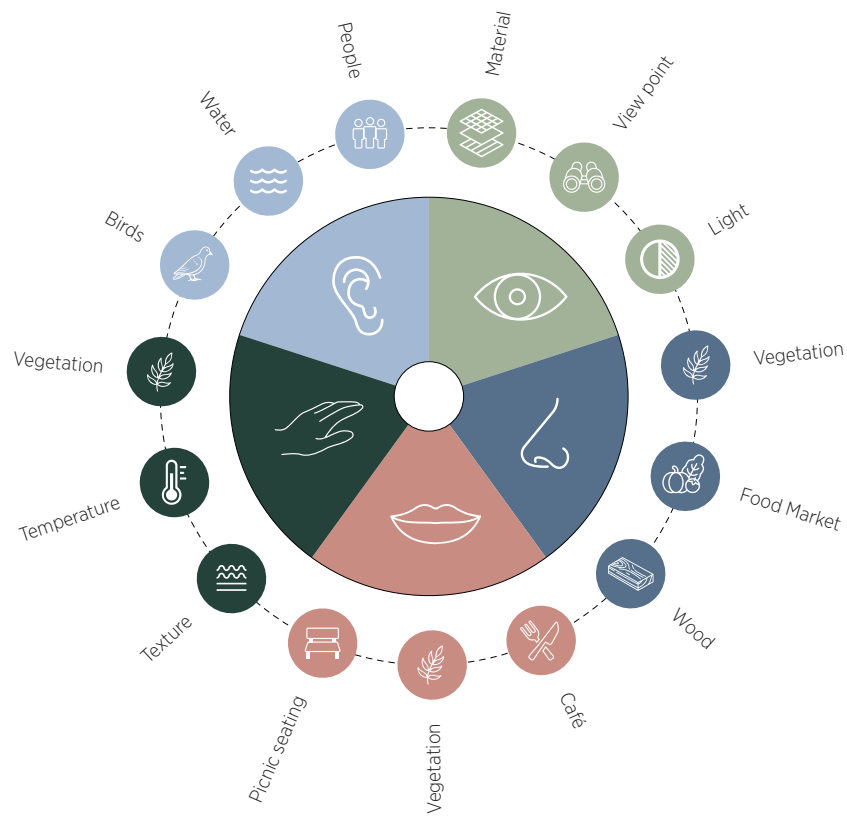


Illustration 60. Sensory qualities

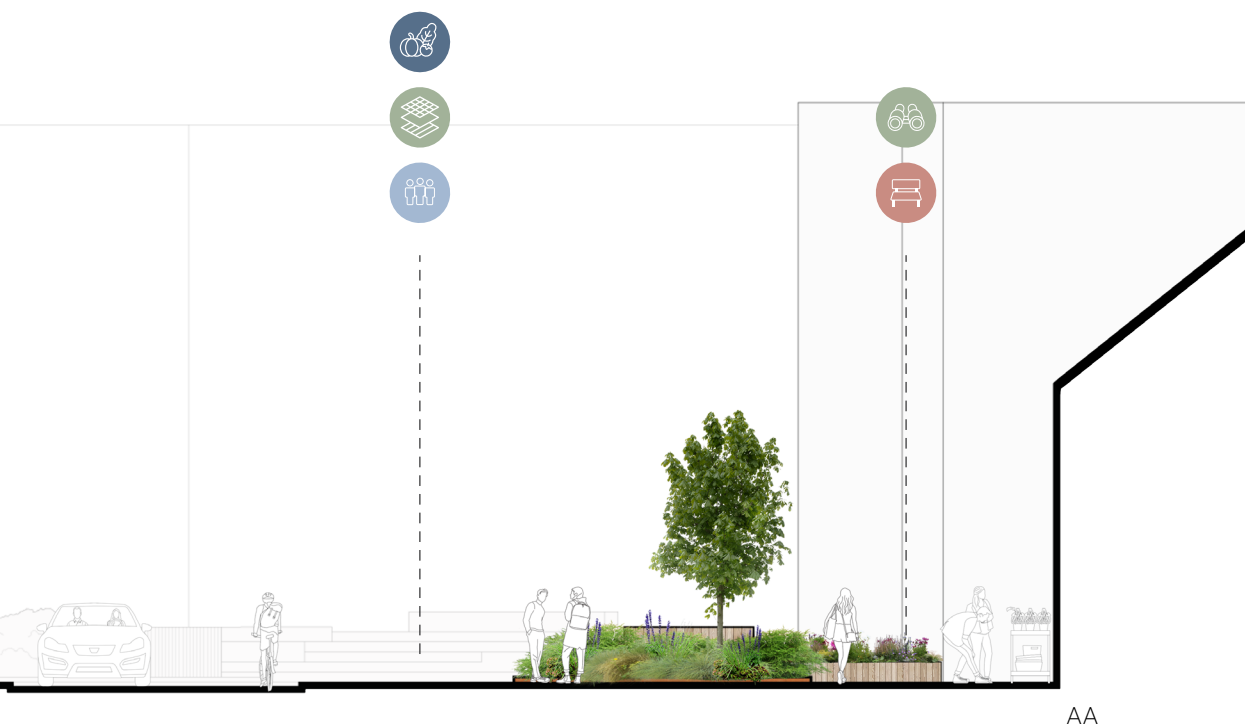


Illustration 61. Section A-AA through Sansehaven, Markedspladsen, and the bike street 1:150

***”I love someone coming over, but each time I experience it as a field of tension: wanting to be around other people but not being able to cope with it”***

*(Landschip and Moderman, 2004, cited in Kinnaer et al, 2016, p. 185)*

## **Degrees of Refugium**

The sensory-avoiding opportunities at Nørresundby Torv are mainly provided through refugiums of varying degrees of privacy and extension of one's personal space. The refugiums are located in both high and low stimuli zones with easy access from the main flow to offer a quick escape from overwhelming situations.

The transparent refugiums are subtle divisions between the personal and public spaces mainly provided through long benches with vegetation protecting the back. Thereby giving a sense of refuge while still sharing the space with others. The translucent refugiums are the most common type at Nørresundby Torv and offer a more distinct division between oneself and the public. Low circular walls enclose a small bench just big enough for two people to sit closely together, thereby making it clear that this space can be occupied by only one or two people. This gives a sense of control and safety in knowing that one has its own personal space to recalibrate the senses in. The last type of refugium is the opaque, which has the most private character. There is only one opaque refugium at Nørresundby Torv, which is located in Sansehaven between high vegetation beds and trees to limit the exposure to and from the refugium without making it dismissive towards the rest of the square but rather make it clear that this is a spot for solitude.

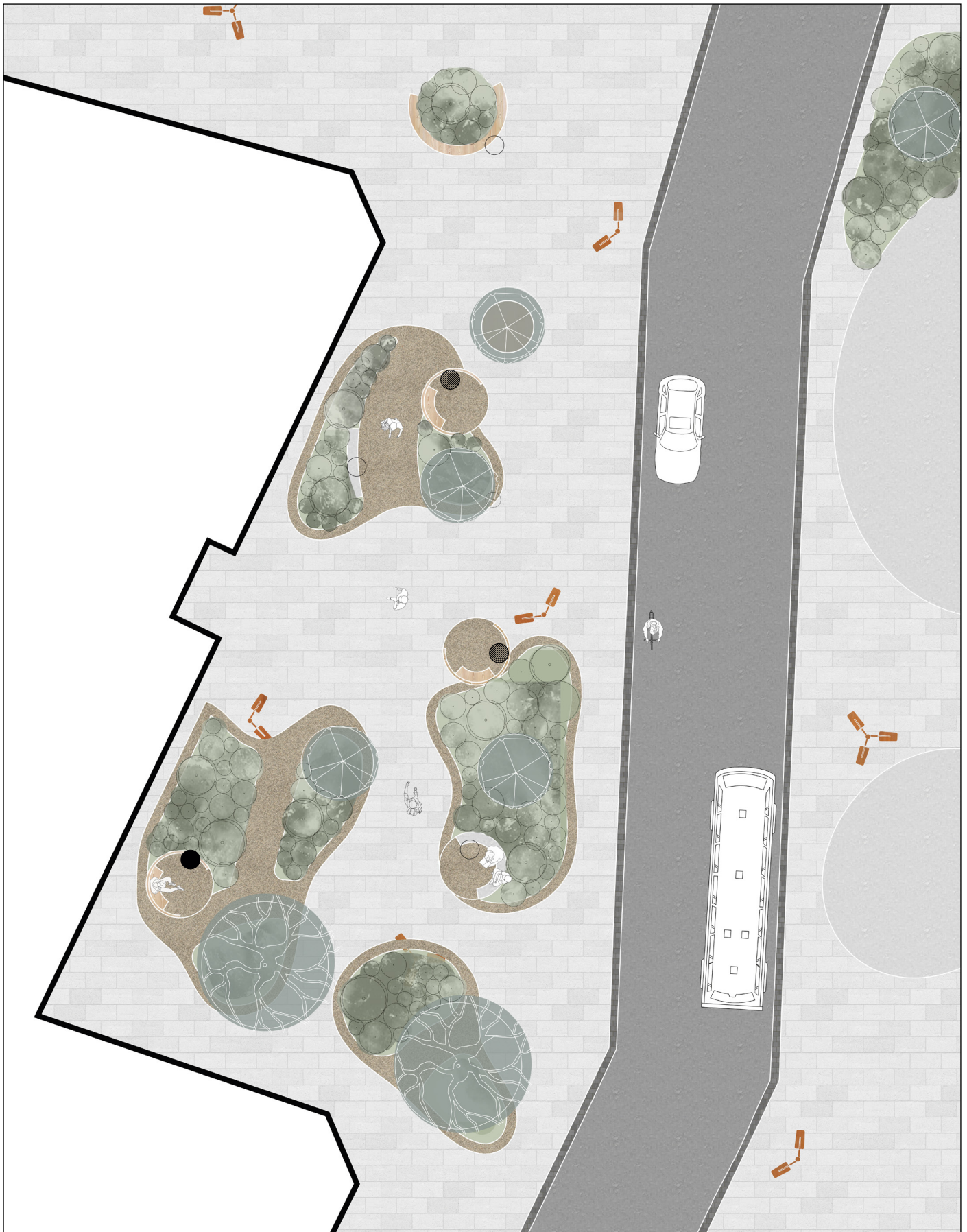


Illustration 62. Zoom plan A with refugiums marked with their degree of transparency 1:200





Illustration 63. Rendering of event space and Gågaden



Illustration 64. Rendering of event space and Rådhustrappen

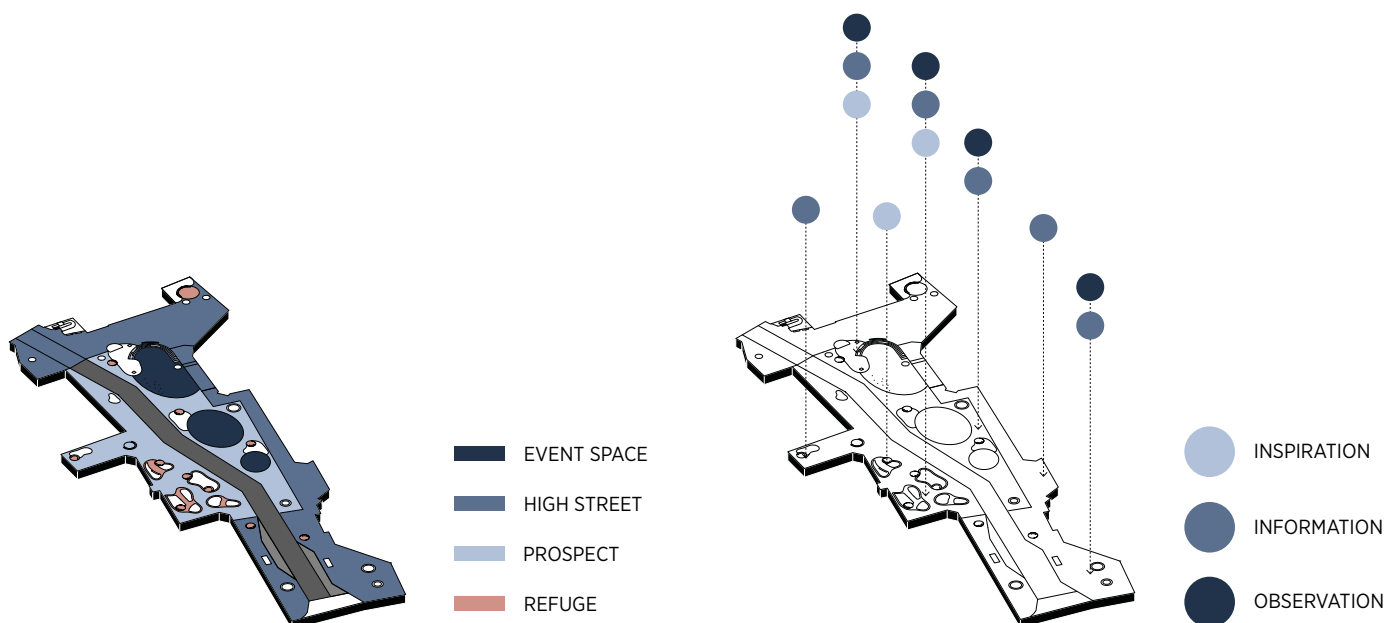


Illustration 65. Opportunities for predictability

Illustration 66. Opportunities for information

# Legibility

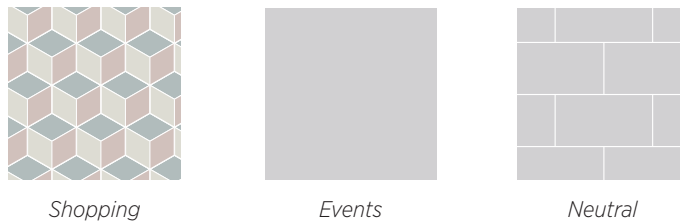
A great cause of distress for autistic people besides sensory overstimulation is a lack of clarity, both regarding vague communication as well as the absence of structure. The transformation of Nørresundby Torv aims at limiting any ambiguity through clear programming and providing explicit information to limit the risks of confusion, which will also help ease any uncertainty for non-autistic people regarding unintentionally violating autistic people's personal boundaries.

Furthermore, structure is not understood as a strict, inflexible program but rather as everything has its own place and characteristics. This can be experienced through the differentiating of pavement at Nørresundby Torv, in which each is used consequently for specific activities, like the coloured pattern along Gågaden that informs that this space is for casual walking and window shopping, or the concrete paved circles at Markedspladsen that is utilised doing temporary events such as farmers market. Such compartmentalisations of

the space offer a clarity that can ease the anxiety that often accompanies autistic people when venturing out onto the vibrant urban scene.

Another way that Nørresundby Torv provides legibility is through provisions of information such as a Welcome Map of Nørresundby Torv located at entrance points to give a quick overview of the sensory zoning and opportunities available. Furthermore, inspiration columns are scattered across the square to prepare for and explain the urban life happening here.

*Illustration 67. Compartmentalization through pavement*



## A Sense of Predictability

At Nørresundby Torv attention is given to making sure ambiguity is limited. This includes a compartmentalization of activities and opportunities through the organisation of different pavement types. Each pavement is associated with specific characteristics that serve as clues to what can be expected within this space. Thereby, a sense of predictability is established since a clear structure is present. For autistic people, this can help limit the risks of overwhelm due to less unexpectedness. Furthermore, the differentiation of pavements is a subtle way to create predictability without using strict programming of a space, which allows for the necessary adaptability that is required for sustaining a vibrant city.

From Gågaden it is possible to move along the colourful pavement across the bike street without being confused as to where the shopping experience continues. Rather, one can simply follow the pavement past Rådhustrappen and, if the mood is for it, take a break on the steps and enjoy the view of Limfjorden. The change of materiality prepares one for a change in activity, and together with the view lines, it is possible at Rådhustrappen to gain a different sense of predictability by getting to observe what will be experienced next as one resumes the stroll along Gågaden down to the harbour front.



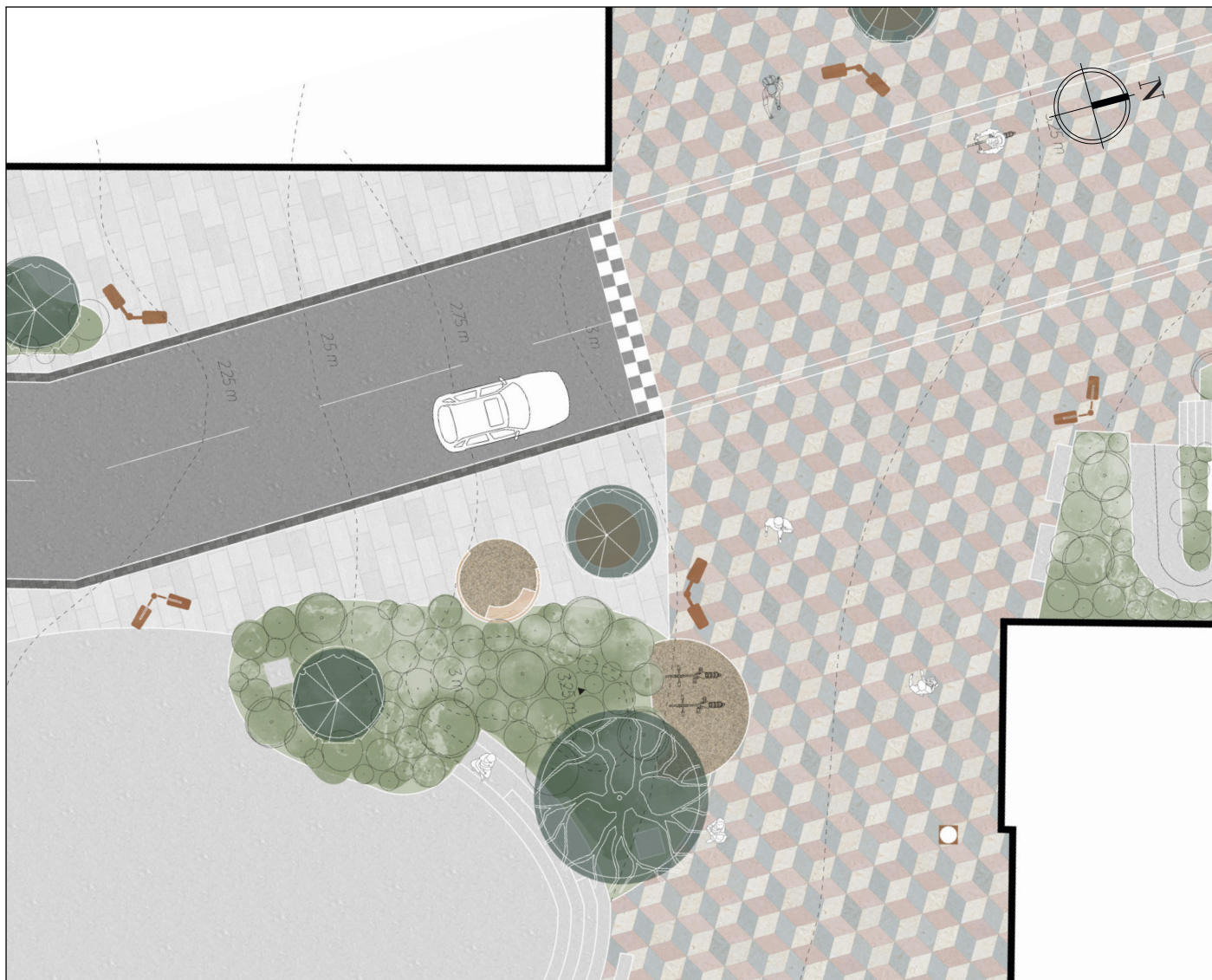
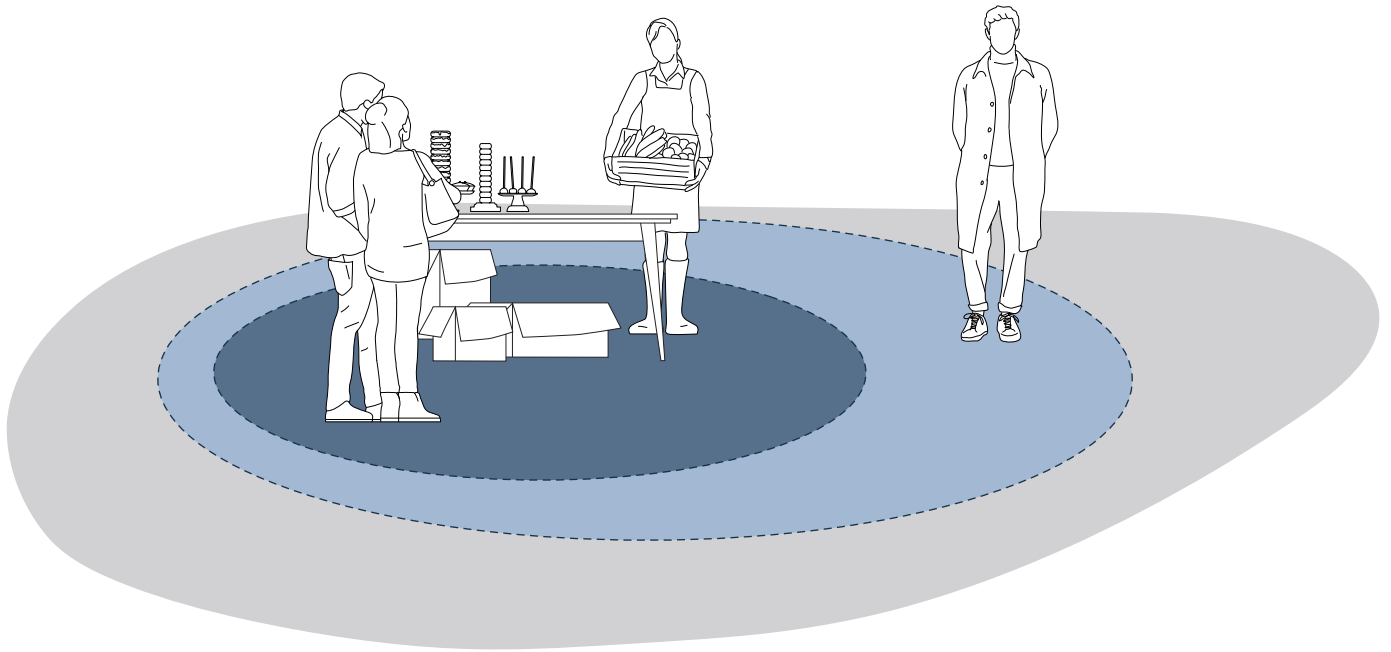


Illustration 68. Zoom plan B showing the pedestrian prioritised crossing along Gågaden 1:200



Illustration 69. Section B-BB through event space, Rådhustrappen, and Gågaden 1:200



*Illustration 70. Opportunity for observing from a distance in transition zones*

## Opportunities for Information

Throughout Nørresundby Torv, different opportunities are given for acquiring information on navigating the square in regards to sensory zoning and inspiration for activities to do in these spaces. The information on navigation is given through signs located at entrance points to Nørresundby Torv that contain a map of the square together with clarifying information on shop hours and scheduled events, high and low stimuli areas and routes, and significant building functions. Furthermore, information is also provided through inspiration columns placed throughout the square with suggestions on ways to engage in the space or what activities can be expected to happen, such as enjoying the view of Limfjorden from the steps of Rådhuspladsen or plucking some berries to taste from the vegetation beds in Sansehaven. Furthermore, it is possible through the spatial organisation to observe from the edge of areas to decide beforehand if one wishes to join in on the activities or rather stay clear of them.

***“It is embarrassing to admit to people [...] that I cannot find my way out of a mall or [...] even easily find my way home in my hometown”***

*(Willey, 1999, cited in Kinnaer et al, 2016, p. 186)*



Illustration 71. Welcome map with practical information on Nørresundby Torv

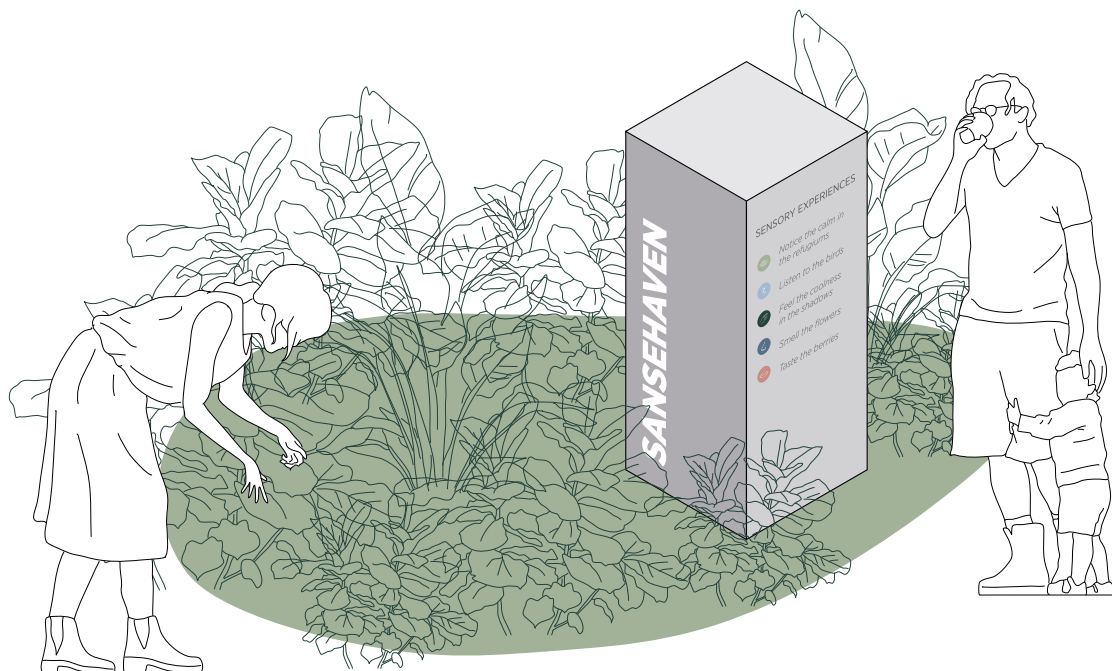


Illustration 72. Inspiration column with suggestions on ways to engage in the space

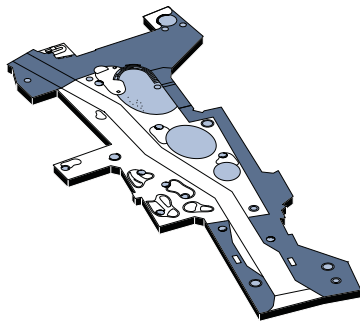




Illustration 73. Rendering of Markedspladsen with Gågaden in the background

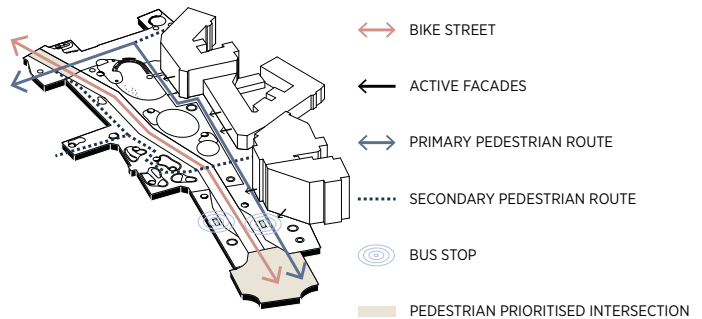


Illustration 74. Rendering of Markedspladsen with Gågaden in the background



■ BOULEVARDEN PAVEMENT  
■ CIRCULAR SHAPES

Illustration 75. Opportunities for familiarity



↔ BIKE STREET  
← ACTIVE FACADES  
↔ PRIMARY PEDESTRIAN ROUTE  
..... SECONDARY PEDESTRIAN ROUTE  
○ BUS STOP  
■ PEDESTRIAN PRIORITISED INTERSECTION

Illustration 76. Opportunities for connections

## Connectedness

Nørresundby Torv is connected to the rest of Nørresundby and Aalborg both physically and psychologically. Together with the transformation of the local road into a bike street, two pedestrian-prioritised crossing zones help to smoothen the barriers and promote safe transitions together with a sense of connectedness within Nørresundby city centre. The existing bus stop near the bridge landing has been extended with a new bus pocket to hinder traffic jams when bus passengers get on and off the bus. The bus pockets are highlighted with a pavement different from the bike street to make it clear to see where the busses stop. Thereby making it easier from a distance to know where to catch a bus to Aalborg. Furthermore, the connectedness within Nørresundby and with Aalborg isn't just physical but is also created through a sense of familiarity between Nørresundby City Centre and Aalborg City Centre through shared design typologies.

Gågaden provides a shared shopping experience between the west and central

parts of Nørresundby City Centre. With its coloured pavement, Gågaden shares design characteristics with Aalborg City Centre, while still supporting the unique characteristics of Nørresundby Torv.

Although Gågaden helps sustain the vibrancy of Nørresundby Torv and its city centre with its vibrant colours and businesses that extend out into the public with interesting displays and opportunities for enjoying the food sold at cafés, such a high stimulus area isn't attractive for everyone. Therefore, alternative routes are provided that give opportunities for moving freely without the fear of being forced into overstimulating places.

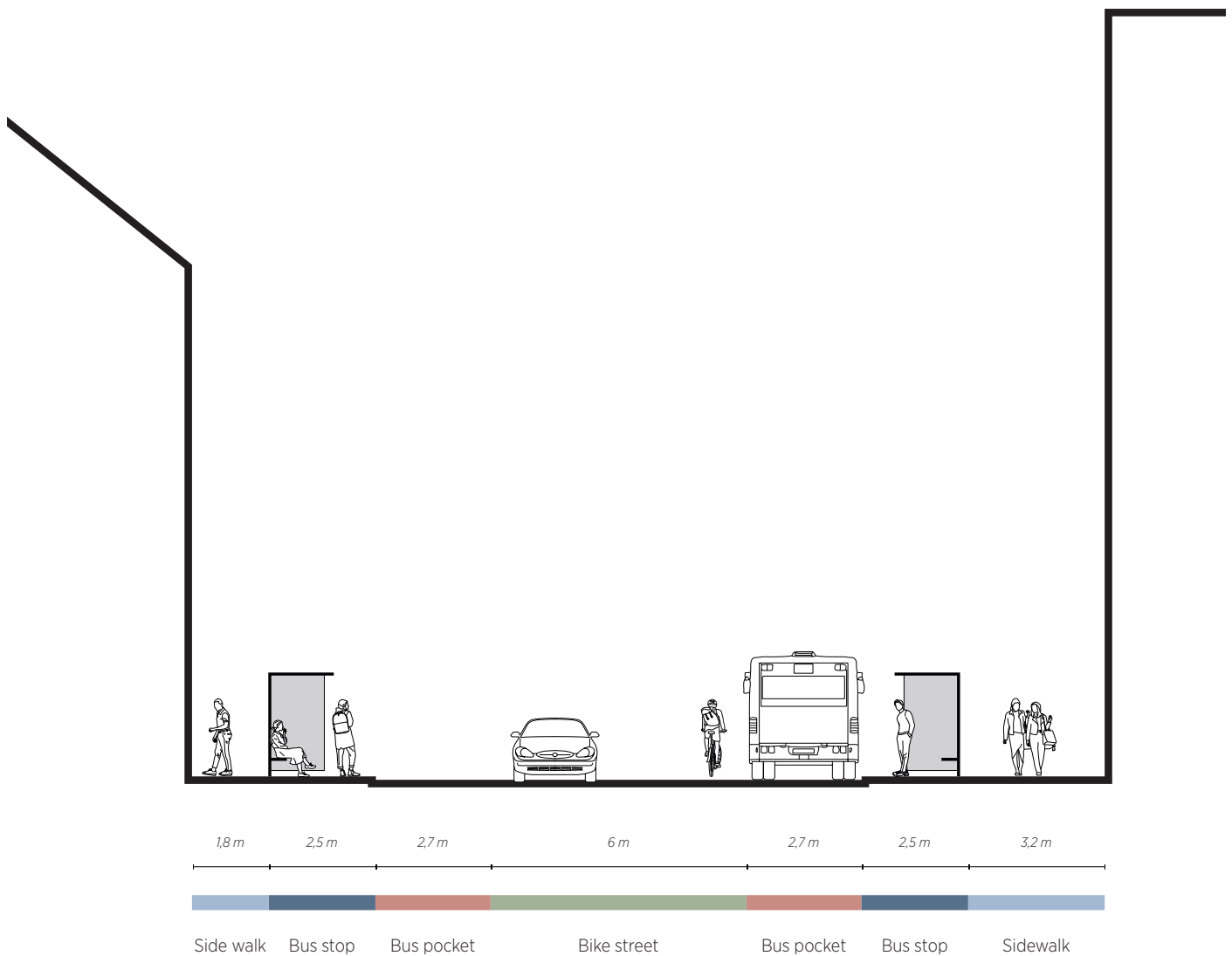


Illustration 77. Conceptual section of bus stop and bike street

## Connections

At Nørresundby Torv, the soft road users are highly prioritised, although car users are still allowed into the square within strict boundaries. The local road is transformed into a bike street, where cars and busses are required to take special consideration to bike riders. The accommodation for car users through the bike street and ample public parking spaces near Nørresundby Torv is a response to the concerns raised by local business owners and is a way of fostering engagement in the transformation of Nørresundby Torv.

Furthermore, Connections are not only reserved for mobilities concerns. Along Gågaden, the ground floor building users have the opportunity to extend their shops outdoors without risking disturbing the flow.



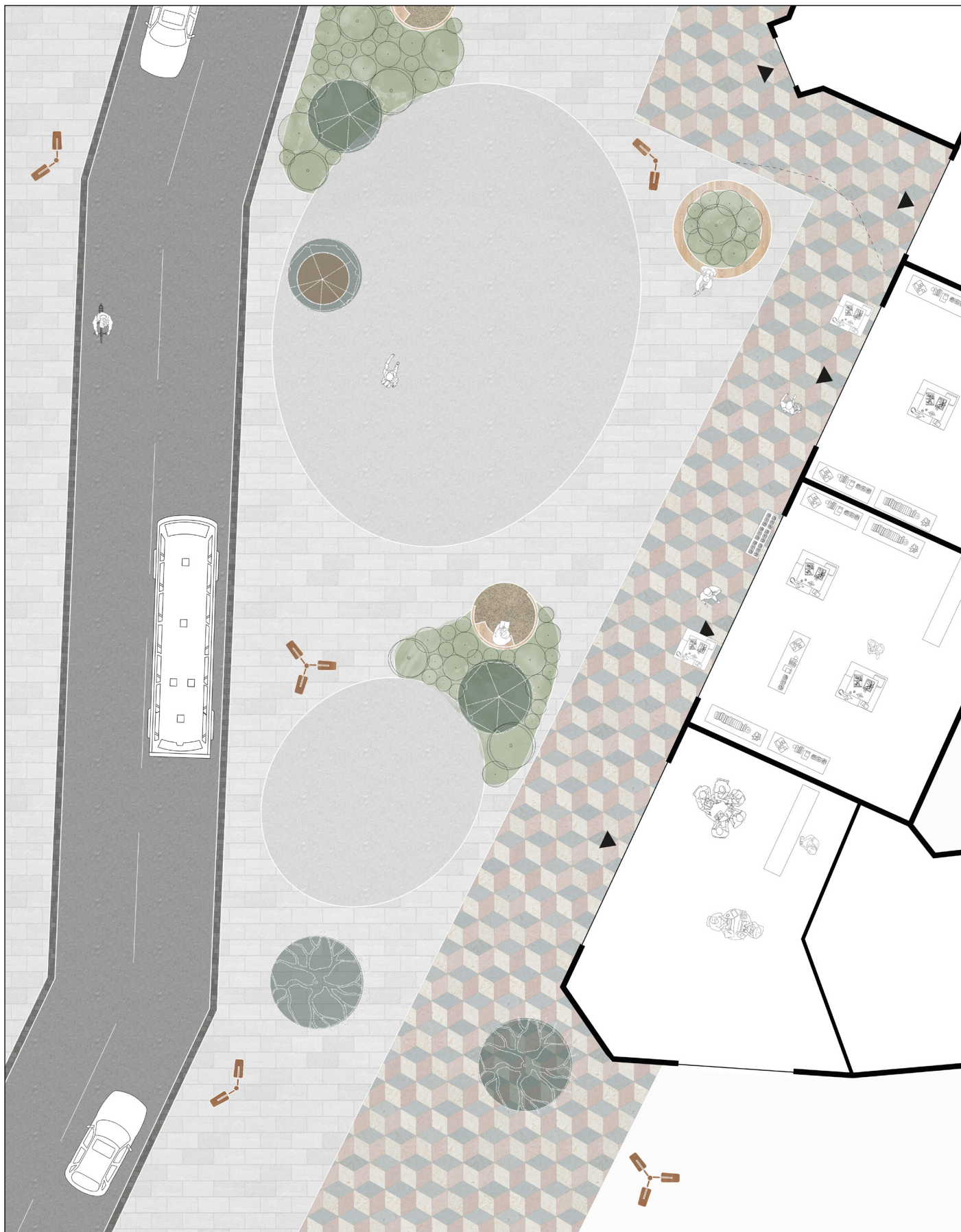


Illustration 78. Zoom plan C showing Markedspladsen and the indoor-outdoor connection between Gågaden and shops 1:200

***”When they took me to a new place, something I didn’t like because new places were so unpredictable, they could make me accept the new place when I could see [...] a familiar sight [...]. With at least some safe point, I could try to take in everything what was new”***

*(Dumortier, 2002, cited in Kinnaer et al, 2016, p. 191)*

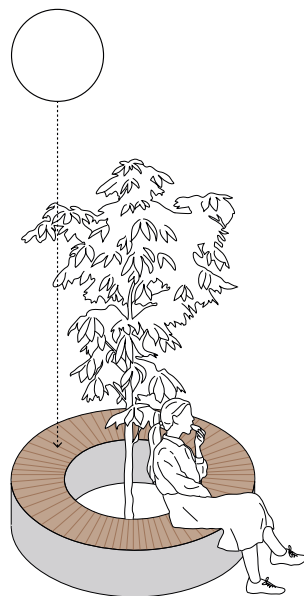
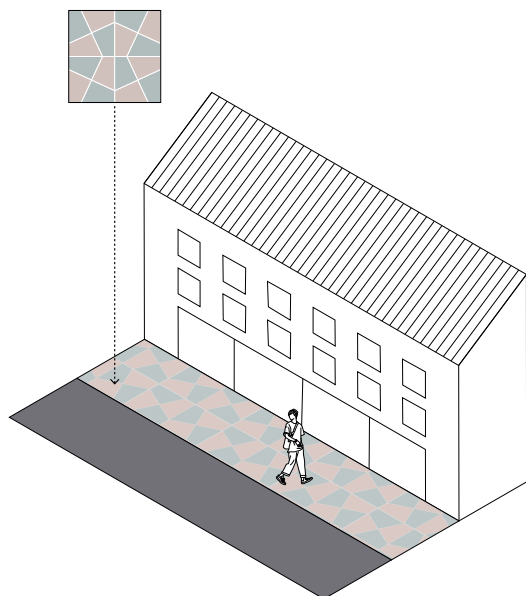
## Feelings of Familiarity

Even though Nørresundby Torv and its city centre possess their own unique and attractive characteristics, its proximity to Aalborg city centre allows for beneficial synergy effects to emerge from this relation. The pedestrian-prioritised crossing at the bridge landing creates an easy passage from Nørresundby to Aalborg, supporting a greater connection between the two city centres. However, the connection is not just physical but also psychological through the implementation of familiar design typologies.

In Aalborg City Centre, along one of the main shopping streets, a distinctive patterned pavement is used between a local road and the active frontages of shops and restaurants. This pavement, together with circular shapes that are present throughout Aalborg City Centre in various urban furniture, is replicated at Nørresundby Torv. Although not copied 1:1. Instead, familiarity is created while still emphasising the unique characteristics of Nørresundby Torv. By sharing familiar design typologies with Aalborg City Centre, Nørresundby Torv offers another sense of predictability. While Nørresundby Torv is transformed into a supportive and inclusive urban space for autistic people, the same is not the case for the rest of the city. Therefore, when it is necessary to venture out into the overstimulating spaces of Aalborg City Centre, the shared design typology can help give a sense of familiarity and safety through the positive experiences at Nørresundby Torv.



## AALBORG CITY CENTRE



## NØRRESUNDBY CITY CENTRE

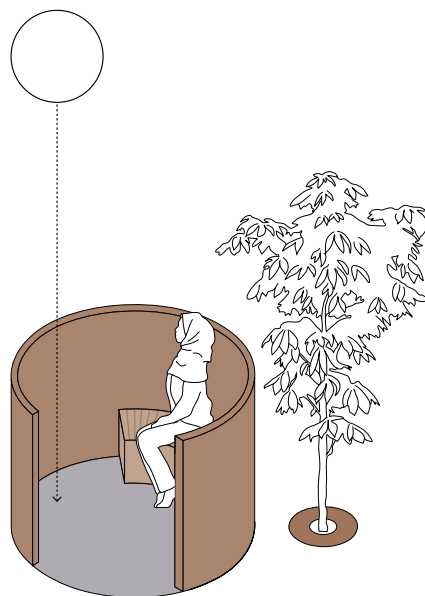
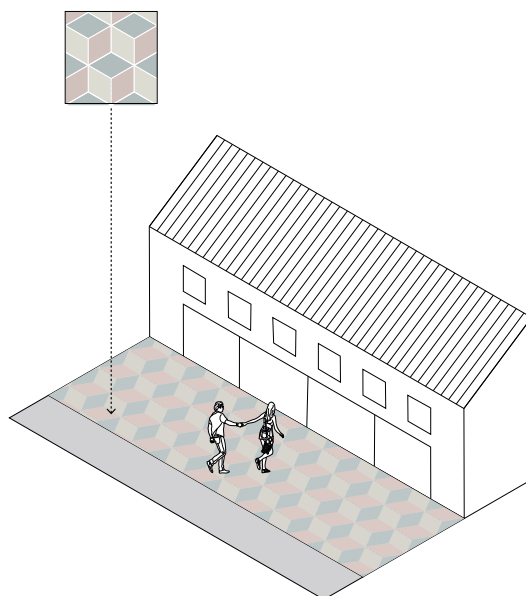


Illustration 79. Familiar design typologies between Aalborg City Centre and Nørresundby City Centre

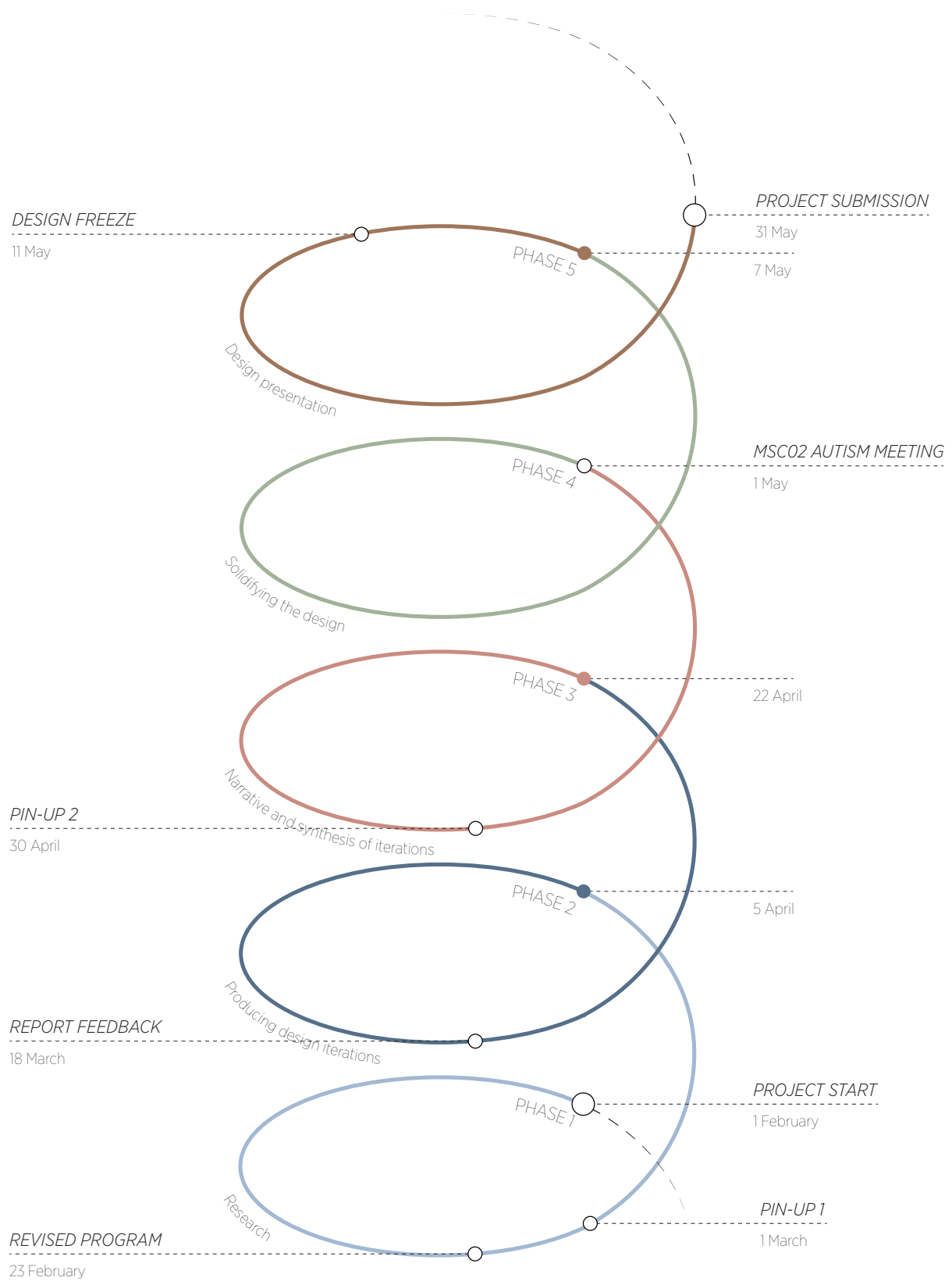


Illustration 80. Design process of thesis project

# Design Process

The design process of the project has been divided into five phases, with the last phase having the highest level of detailing. The project spanned over four months, however, the phases weren't the same length. The first phase was the longest since it contained both the research of autism and theories as well as the analyses of the site and context. Furthermore, sketches were made every week to conclude the findings of the research to gain a deeper understanding.

In phases 2 and 3, most of the sketch workshops were held to generate as much material as possible that later could be organised into an overall narrative. The narrative was given many faces throughout the design process, all trying to answer the problem of how to accommodate autistic people at Nørresundby Torv while supporting the place as part of a vibrant city centre. This duality led to the vision of balance illustrated through the notions of yin and yang at the end of phase 3 for pin-up 2. The two pin-ups served as major milestones in the project and helped gain a helicopter view, which easily can be lost when sketching is done by only one person. However, almost every week a feedback group was held between this thesis project and two individual MSc04 Urban Architecture thesis projects. Although the projects each had their own focus and site, the meetings helped push the project forward through constructive criticism of the process and design.

In the two last phases of the design process, the work done was mainly centred around detailing and solidifying the design ideas to make them robust and ensure a shared logic. On 11 May, the design proposal was frozen, which meant that after this point, the focus was only on producing presentation materials for the design proposal.

In the following pages, the five phases of the design process will be elaborated together with a section of sketches that have helped lead to the final design proposal presented earlier in this chapter.

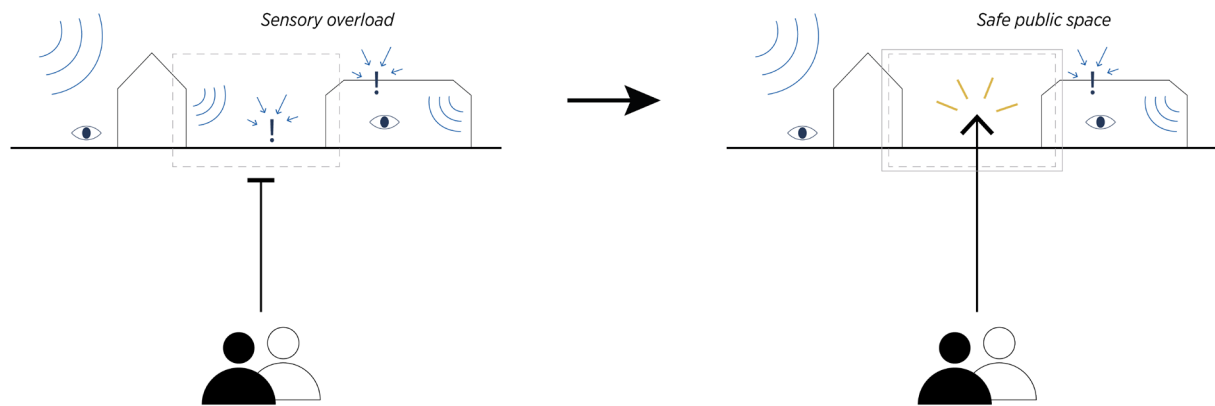


Illustration 81. Initial vision for project

## Phase 1

The first phase of the design process was mainly concerned with establishing the direction of the project through initial visions and problem statements. Few design proposal sketches were created, mostly centred around the sensory zoning of the site and various loose ideas. Furthermore, during this phase, most of the analyses and theoretical writings were done to create a robust foundation on how to best design urban spaces for autistic people. However, to make sure that the design process became integrated, the findings from analyses and theories were converted regularly into design elements.

As a way of addressing the capabilitarian approach to well-being, the idea of creating well-being freedoms through a variety of fixed and free choices emerged. Later this idea evolved into the alternative routes

provided in the final design proposal.

### CONCLUSION

At the end of phase 1, an initial problem statement together with a vision had been created focusing on how Nørresundby Torv could be redesigned to accommodate autistic people by providing opportunities for them to avoid overstimulation and engage in urban activities on their own terms. Furthermore, the project was organised into three themes that would be explored in depth during phase 2. These themes had arrived as a way of organising the findings of the S.W.O.T analyses to prepare and be specific on the design iterations for the sketch workshops in phase 2.



Illustration 82. Initial sketch based on theoretical readings

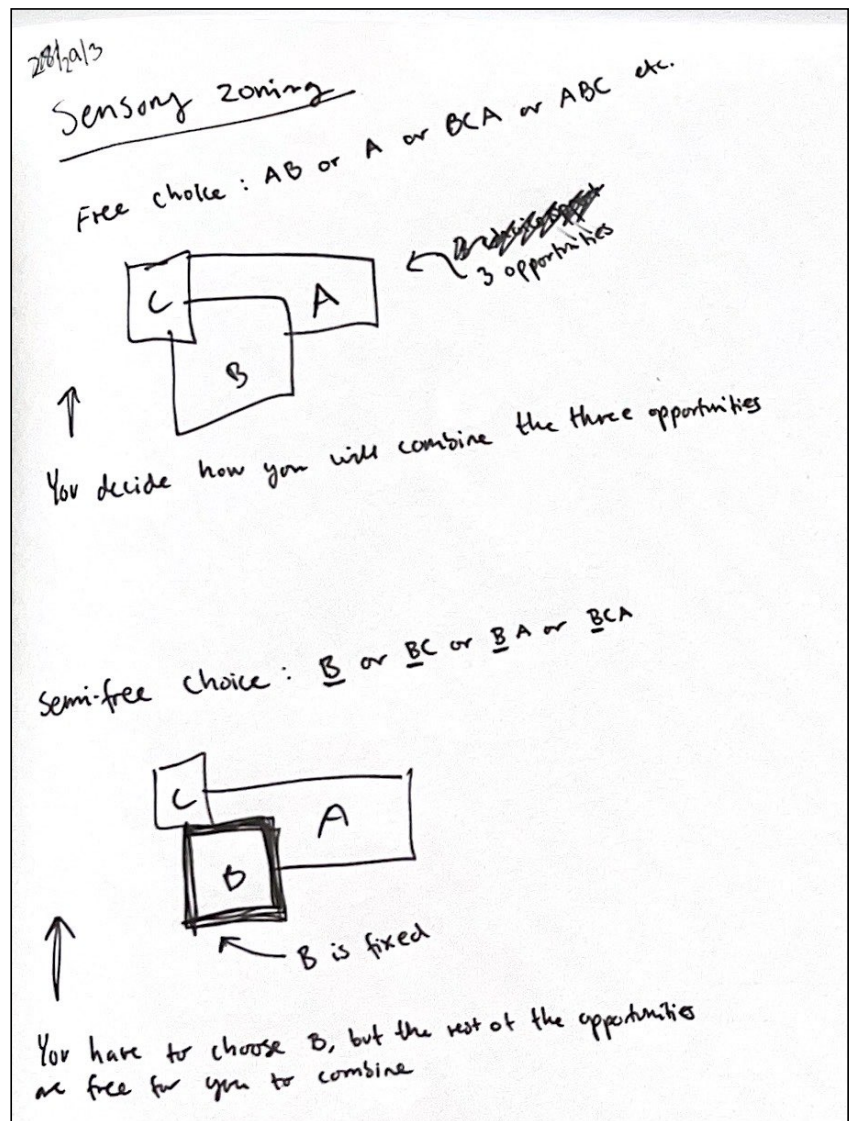


Illustration 83. Initial sketch based on notion of well-being freedoms



Illustration 84. Initial masterplan concluding on workshop 1 and 2

## Phase 2

Based on the work done in phase 1, phase 2 mainly focused on exploring through sketching workshops the three themes of the project: Accommodating autistic people first; Revive Nørresundby City Centre; and Addressing mobilities concerns. Many sketches were produced, ranging from iterations on an urban scale to abstract function diagrams. During phase 2, two sketching workshops were held. In the first, each project theme was dealt with separately by allocating 30 minutes to sketch as many ideas as possible. Afterwards, each sketch was evaluated based on its potentials and weaknesses. The most promising sketches were then selected to be iterated further upon and merged with the other ideas during the second workshop. Here, the focus was no longer on each of the three themes but rather on how to create synergy

effects between them on a strategic level. Later, through masterplan iteration, the most promising sketches from workshop 2 were further developed.

### CONCLUSION

Phase 2 ended with an initial masterplan (not in scale), which contained the first appearances of Rådhustrappen together with the placement of a low stimuli zone with alternative routes through organically shaped vegetation beds that would later evolve into Sansehaven. The selection of these elements was based on evaluating if they fulfilled the vision and problem statement as well as how they addressed the findings of the analyses.



Illustration 85. Iteration on sensory zoning



Illustration 86. Sketch focused on flow in workshop 2

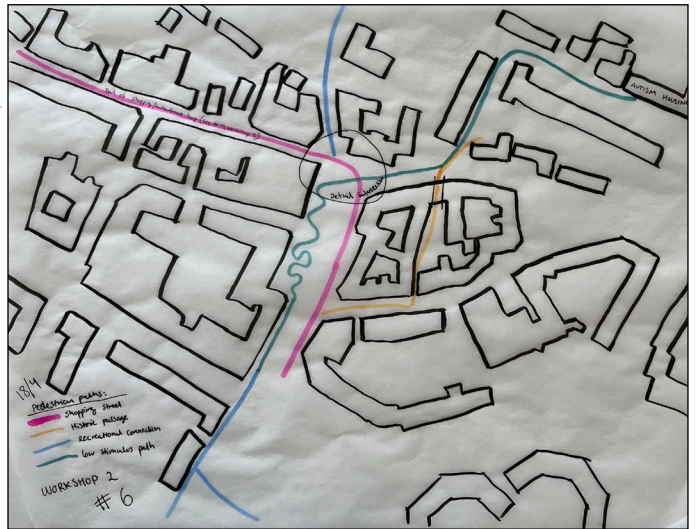
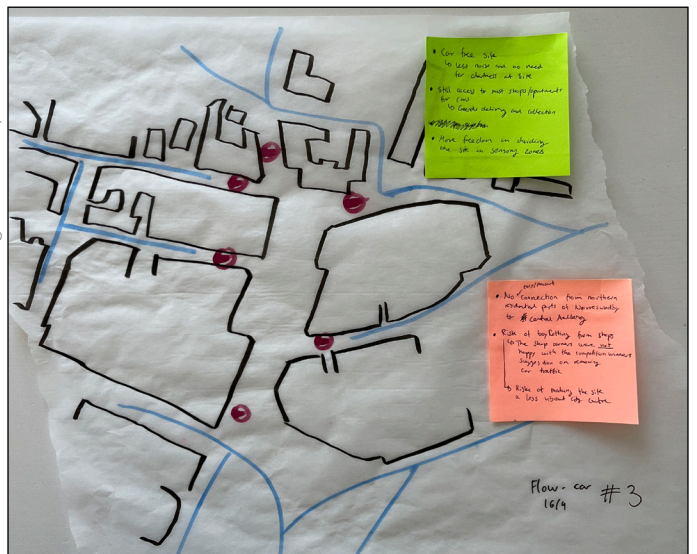


Illustration 87. Iteration on road closings in workshop 1



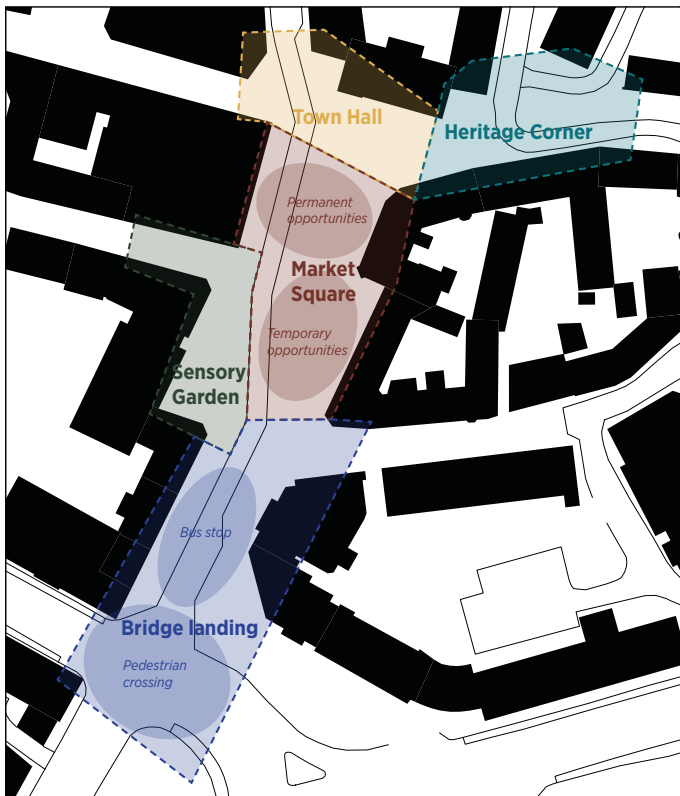


Illustration 88. Division of site into sub-areas

## Phase 3

In phase 3, further sketch iterations were made for the three project themes, together with much of the work centred around creating a narrative that could respond and combine the project themes. Phase 3 ended with the last pin-up, therefore unlike in the previous phases a great emphasis was on communicating design ideas rather than generating them, which led to several mood boards with references and pictures being generated. Furthermore, the qualities of each reference picture were evaluated to translate them into principles applicable to the project. It was also during this phase that the transformation concept was created together with the vision of balance and the notions of yin and yang.

### CONCLUSION

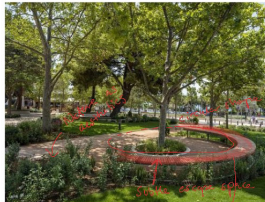
The work in phase 3 focused mainly on developing the project's narrative, meaning only a few design iterations were created. Rather, the focus was on merging the previously produced material into specific focus areas, which led to the site being divided into five areas based on their sensory qualities and type of opportunities.



## Supporting Autistic Everyday Life

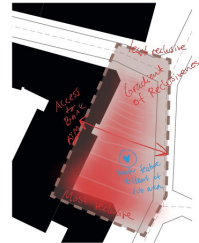
### Sensory Garden

- Catering to sensory-seeking individuals
- Pavement divides area into different subareas
- Each subarea has its own atmosphere and sensory properties
- Tactility through materials (Smooth, rough, dynamic, static, cold, warm)
- Seating facing both towards and away from public paths
- Sharing design language with Aalborg city centre (circles, dark brown/red colors and granite)



- Gravel path (Secondary)
- Brick tile path (Primary)
- Biodiversity (bee, flower, bush) to smell, to see, to feel
- Water feature (small) to sound, feel
- Various seating opportunities to materials, placement, orientation, size

### Diverse sensory stimulation



### Nature in focus



### Clear Divisions



Illustration 89. Moodboard with evaluations of reference pictures

## DESIGN DRIVERS

### SENSORY ZONING

Organise the site based on sensory qualities like high stimulus and low stimulus

### SENSORY-SEEKING

Address the potential risks of flooding at the site through water installations that also provide auditory stimuli

### SENSORY-AVOIDING

Escape spaces + Limit noise levels at site

### TRANSITION ZONES

Provide opportunities between different stimuli areas for users to observe activities at a distance to gain an overview and make active choices regarding potentially participating while recalibrating their senses

### VIBRANT DISTRICT

Group primary functions along one central shopping street, so they can support and sustain each other through vicinity and creating the basis for secondary uses

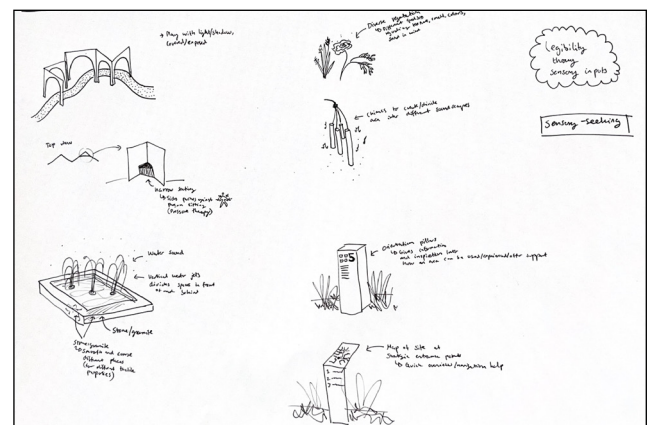


Illustration 90. Iterations for supporting everyday autistic lives

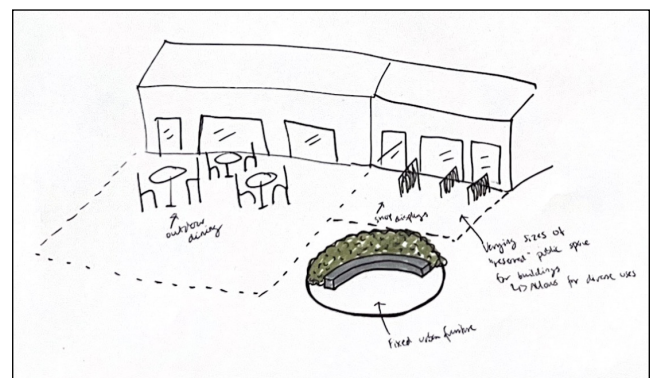


Illustration 91. Iterations for vibrant city centre

## Design Strategies

## Design Principles

<b>SENSORY QUALITY</b>	High stimuli	Low stimuli	Transitions	Refugiums
<b>LEGIBILITY</b>	Compartmentalization	Way-finding	Visual cues	Sensory cues
<b>ACTIVATION</b>	Outdoor - Indoor	Events	Urban connections	
<b>PEDESTRIAN FIRST</b>	Division of mobilities users	Pedestrian prioritised crossings	Limited car access	
<b>AUTISM ACCEPTANCE</b>	Autism education	Autismcenter Nordbo	Autism Awareness Month (April)	

Illustration 92. The three project themes converted into design strategies and principles

- SUPPORTING AUTISTIC EVERYDAY LIVES
- CITY CENTRE REVITALIZATION
- MOBILITIES

# Phase 4

The fourth phase of the design process was the last period of sketching design ideas and exploring different iterations. Many decisions were taken during this phase, all focusing on how the design physically fulfils the vision for the project. A few previously settled elements of the design were changed based on feedback from the pin-up in phase 3 and a meeting with an MSc02 Urban Architecture group, who also were doing a project on designing urban spaces for autistic people. The changes included making the area division of the site into a more soft sensory zoning rather than distinctive areas due to the relatively small size of the site. Furthermore, up until this point in the process, the design drivers had been very fluffy with mainly the project themes guiding the design iterations. Therefore, these were developed into specific design strategies instead. Although in the final design proposal, the three design strategies of sensory experiences, legibility, and connectedness are presented, during phase 4, five strategies were explored

through individual sketch workshops. Later these were combined into the final three strategies by establishing design principles within the design strategies.

## CONCLUSION

Phase 4 was about solidifying the design proposal through the development of design strategies and iterating spatial design ideas that would respond to these strategies. Much of the legwork had already been done in the previous phases, with this phase primarily being about binding a nice bow on it. However, maybe a bit late in the process, infrastructural iterations regarding road width and bus stop dimensioning were developed based on several technical road guides. It was determined through thorough exploration that the bus stop was already optimally located without radically redesigning the bridge landing. However, a transformation of the bridge landing might have supported even better a visual and physical connection between the site and the harbourfront.



Illustration 93. Suggestion for new structures of site and context

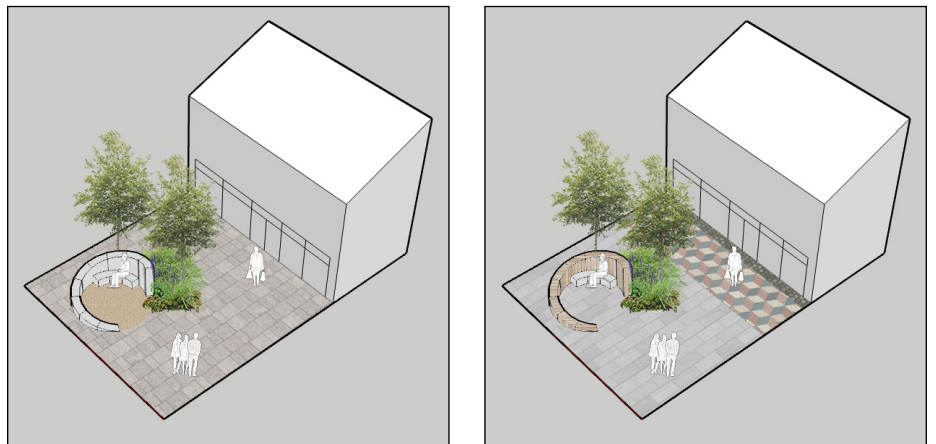


Illustration 94. Iterations on material choice and look of refugiums, event space, and shopping street

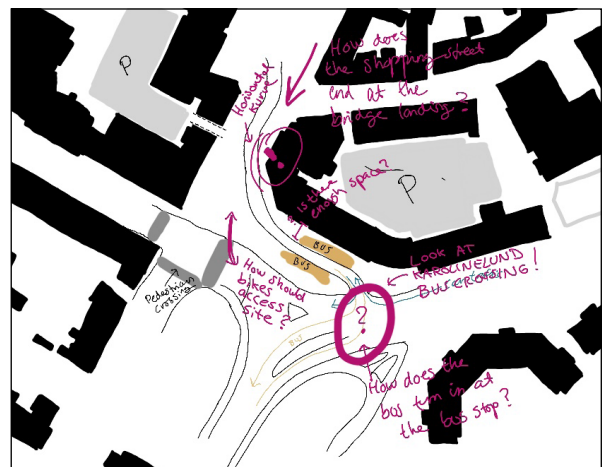


Illustration 95. Iteration on redesigning infrastructure at bridge landing





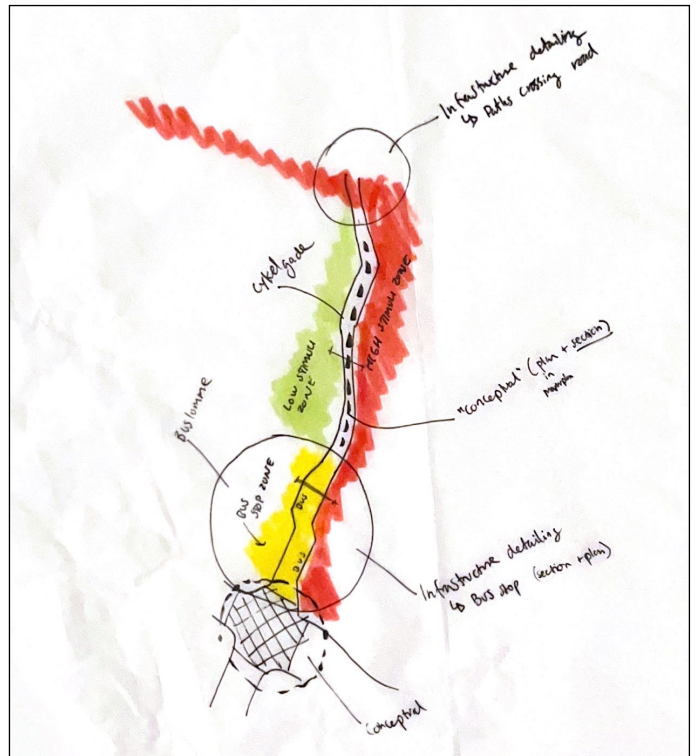


Illustration 97. Conceptual sketch of infrastructural changes



Illustration 98. 3D Rhino model of design proposal

05

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*VARNISH*



## **Reflecting on the Work**

The final chapter covers the conclusion of the project together with suggestions on how the topic of designing urban spaces for autistic people can be further explored, together with which actions still need to be taken for the conversation to become more respectful of the different ways that autistic people experience the world. Furthermore, the chapter will end with a reflection on the project and its design proposal regarding the results and their processes.

# Concluding Remarks

Nørresundby Torv has been transformed into a square with a range of diverse opportunities for both hyper and hypo-sensitive individuals to accommodate the heterogenic group of autistic people as well as the general non-autistic population. This is achieved by organising the site into low and high stimuli areas together with opportunities for either increasing or decreasing the sensory stimuli. Thereby addressing the vision of accommodating autistic people at Nørresundby Torv by limiting risks of sensory overstimulation and provide the opportunities for engaging in the vibrant city centre of Nørresundby Torv on their own terms.

Furthermore, a duality is ingrained in the thesis project, by aiming to both accommodate autistic people and to support Nørresundby Torv as part of a vibrant city centre. These, initially opposing considerations have been treated as different sides to the same issue, which is providing the basis for good urban life. For this, the notion of balance has guided the work towards an integrated design proposal that addresses both autistic design considerations and the specific nature of the site.

At Nørresundby Torv, it is possible to experience high stimuli in several ways, one of which is at Markedspladsen, located just next to the part of Gågaden that runs through Nørresundby Torv. Although one might seek sensory stimulation, it

doesn't necessarily mean that all stimuli are good. Therefore, it is possible to observe at a distance before deciding to join the activities. During summertime, Markedspladsen transforms into a farmers market every week, offering ever-changing experiences filled with different colours, textures, sounds, tastes, and smells that can be experienced when browsing through market stalls. Furthermore, to promote well-being in autistic and non-autistic people the ten well-being capabilities are addressed by, for example, promoting control over one's own environment and bodily integrity through the refugiums that extend the personal space beyond the boundaries of the body.

To both support autistic people and promote a vibrant city centre, a café run by Autismecenter Nordbo is placed along Gågaden on the edge of the high stimuli area. The café provides a space for autistic and non-autistic people to meet regularly in informal settings, which through the visibility of autistic people in urban life, can help to counter common stereotypes of autistic people and foster new relations across neurodiversities.



# Reflections

The aim of the thesis project has been to showcase how autistic people can be accommodated by limiting overstimulation while supporting the vibrancy of urban life. To achieve this, a central focus has been on providing opportunities as a way of addressing the heterogenic nature of the autistic population. However, due to the scope and limitations of the project, the design proposal only adresses sensory differences through sensory-seeking and sensory-avoiding opportunities. And while this accommodates many aspects of the autistic experiences, sensory differences are not the only characteristics of autism that can and should be supported. The nature of urban design poses some limitations on the extent of which autistic people can be accommodated. However, eventhough elements such as communication and interoception differences weren't directly addressed in the design proposal, by accommodating for sensory differences and focusing on reducing the ill-being cause by overstimulation for hypersensitive

individuals and understimulation for hyposensitive individuals, a holistic approach to supporting autistic people are provided.

## WORKING INDIVIDUALLY

The process of the thesis project has been different to previous semesters, since the project was done as an individual group of only one person. This came with both some limitations and advantages compared to working in groups of two or three people. During the design process, time was not spent on arguing and discussion design ideas, but instead sketches could be produced and decisions quickly made. However, it can be argued that time spent discussing aren't wasted since they allow for critical reflection of the produced material. A reflection that often only was done during weekly feedback group meetings. When working alone most reflection and discussion is done internally without the need for explaining the reasoning behind ideas or sketches, since the reasons are

already known, at least unconsciously. It was experienced during the design process that several ideas seemed robust when iterated in isolation, however, when these ideas were presented for others during supervisions or feedback groups, it quickly became clear that the ideas actually were lacking in several areas. Therefore, the design proposal could be assumed to have been stronger, if the thesis project had been conducted as a group project of two or three people.

Although the collaborative nature of the integrated design process was already appreciated before doing the thesis project, after producing an individual design proposal it has been ever so clear how communication is a vital part of the design disciplines.

## **STARTING A CONVERSATION**

Even though working alone during the thesis project was experienced as lacking in some areas of the process. An advantage was the opportunity to emerge into the

topic of autism and honoring the objective of designing urban space for autistic by creating a design proposal for autistic people by an autistic person.

During the research into autism and how to accommodate autistic people through urban design, it quickly became clear that due to the novelty of the project theme, a lot of time was needed to sort through outdated and contradicting literature. However, by being autistic and intuitively knowing what information is stereotypes and which are respectfully researched, the complexity of the task was limited. The difficulties in gathering academic information on autism, highlighted how the project theme is part of the start of the conversation on inclusive urban spaces for autistic people.

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# Illustrations

*Front page: Own illustration*

*Illustration 1: Jonathan Schooler modified by Mathilde Fløjgaard Andersen*

*Illustration 2-4: Own illustration*

*Illustration 5: Various illustrations from unknown sources modified by Mathilde Fløjgaard Andersen*

*Illustration 6: Own illustration*

*Illustration 7:*

*Heart by Marvin Wilhelm from Noun Project modified by Mathilde Fløjgaard Andersen*

*Health by H Alberto Gongora from Noun Project modified by Mathilde Fløjgaard Andersen*

*Security by rendicon from Noun Project modified by Mathilde Fløjgaard Andersen*

*Idea by Adrien Coquet from Noun Project modified by Mathilde Fløjgaard Andersen*

*Drama by James Smith from Noun Project modified by Mathilde Fløjgaard Andersen*

*Chess by Iadhina from Noun Project modified by Mathilde Fløjgaard Andersen*

*Wedding rings by Happy elephant from Noun Project modified by Mathilde Fløjgaard Andersen*

*Parliament by Made x Made from Noun Project modified by Mathilde Fløjgaard Andersen*

*Soccer by Dylan Bissonette from Noun Project modified by Mathilde Fløjgaard Andersen*

*Dog by Alena Artemova from Noun Project modified by Mathilde Fløjgaard Andersen*

*Illustration 8: Own illustrations except*

*Warbler by Matt Steele from Noun Project modified by Mathilde Fløjgaard Andersen*

*Magnifyer by Soremba from Noun Project modified by Mathilde Fløjgaard Andersen*

*Lavender by Yohann Berger from Noun Project modified by Mathilde Fløjgaard Andersen*

*Construction safety helmet by Suncheli Project from Noun Project modified by Mathilde Fløjgaard Andersen*

*Illustration 9: Collage of following pictures*

*Destination Nord by Lene Fragtrup from Enjoy Nordjylland modified by Mathilde Fløjgaard Andersen*

*Shelter Lindholm Fjordpark by unknown from Waiting out the rain modified by Mathilde Fløjgaard Andersen*

*Lindholm Høje by Frank Vincentz modified by Mathilde Fløjgaard Andersen*

*Løvvangen by unknown from Sundby-Hvorup Boligselskab modified by Mathilde Fløjgaard Andersen*

*Kvickly Bouet by unknown from Nordjyske.dk modified by Mathilde Fløjgaard Andersen*

*Nørre Uttrup Kirke by VisitAalborg from Enjoy Nordjylland modified by Mathilde Fløjgaard Andersen*

*Hedegaard silo by Lars Horn from Danske Malermestre modified by Mathilde Fløjgaard Andersen*

*Lindholm Søpark by unknown from Sundby-Hvorup Boligselskab modified by Mathilde Fløjgaard Andersen*

*Nørresundby Harbourfront by unknown from migogaalborg.dk modified by Mathilde Fløjgaard Andersen*

*Skanseparken by VisitAalborg from Enjoy Nordjylland modified by Mathilde Fløjgaard Andersen*

*Stigsborg bylivshus by unknown from Stigsborg.dk modified by Mathilde Fløjgaard Andersen*

*Stigsborg by Stigsborg from LinkedIn modified by Mathilde Fløjgaard Andersen*

*Illustration 10: Collage of following pictures*

*View from Skansebakken by Samlingshuset/Nordjyllands Historiske Museum from lex.dk modified by Mathilde Fløjgaard Andersen*

*Limfjorden by Sundby-Samlingernes Lokalhistoriske Arkiv from Arkiv.dk modified by Mathilde Fløjgaard Andersen*  
*Færgefart by Sundby-Samlingernes Lokalhistoriske Arkiv from Arkiv.dk modified by Mathilde Fløjgaard Andersen*  
*Østergade by Sundby-Samlingernes Lokalhistoriske Arkiv from Arkiv.dk modified by Mathilde Fløjgaard Andersen*  
*Nørresundby i brand by Sundby-Samlingernes Lokalhistoriske Arkiv from Arkiv.dk modified by Mathilde Fløjgaard Andersen*  
*Nørresundby branden by Sundby-Samlingernes Lokalhistoriske Arkiv from Arkiv.dk modified by Mathilde Fløjgaard Andersen*  
*Hotel royal by Sundby-Samlingernes Lokalhistoriske Arkiv from Arkiv.dk modified by Mathilde Fløjgaard Andersen*  
*Nørresundby Torv by Sundby-Samlingernes Lokalhistoriske Arkiv from Arkiv.dk modified by Mathilde Fløjgaard Andersen*  
*Limfjordsbroen by Sundby-Samlingernes Lokalhistoriske Arkiv from Arkiv.dk modified by Mathilde Fløjgaard Andersen*  
*Brotorvet by Sundby-Samlingernes Lokalhistoriske Arkiv from Arkiv.dk modified by Mathilde Fløjgaard Andersen*  
*Illustration 11-14: Own illustration*  
*Illustration 15: Flyfoto by unknown from Aalborg Kommune modified by Mathilde Fløjgaard Andersen*  
*Illustration 16-23: Own illustration*  
*Illustration 24: Own illustration with CAD entourage by unknown*  
*Illustration 25-40: Own illustration*  
*Illustration 41: Yin yang by ainul muttaqin from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Illustration 42: Own illustration with CAD entourage by unknown*  
*Illustration 43-50: Own illustration*  
*Illustration 51: Own illustration except*  
*Heart by Marvin Wilhelm from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Health by H Alberto Gongora from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Security by rendicon from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Idea by Adrien Coquet from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Drama by James Smith from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Chess by Iadhina from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Wedding rings by Happy elephant from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Parliament by Made x Made from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Soccer by Dylan Bissonette from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Dog by Alena Artemova from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Illustration 52-55: Own illustration*  
*Illustration 56-57: Own illustration with CAD entourage, textures, and cut-outs by unknown*  
*Illustration 58: Own illustration*

*Illustration 59: Own illustration except*

*Mouth by Vectors Point from Noun Project modified by Mathilde Fløjgaard Andersen*

*Eye by AliWijaya from Noun Project modified by Mathilde Fløjgaard Andersen*

*Ear by Cherry from Noun Project modified by Mathilde Fløjgaard Andersen*

*Hand by iconcheese from Noun Project modified by Mathilde Fløjgaard Andersen*

*Nose by Eman Hermawan from Noun Project modified by Mathilde Fløjgaard Andersen*

*Illustration 60: Own illustration except*

*Mouth by Vectors Point from Noun Project modified by Mathilde Fløjgaard Andersen*

*Eye by AliWijaya from Noun Project modified by Mathilde Fløjgaard Andersen*

*Ear by Cherry from Noun Project modified by Mathilde Fløjgaard Andersen*

*Hand by iconcheese from Noun Project modified by Mathilde Fløjgaard Andersen*

*Nose by Eman Hermawan from Noun Project modified by Mathilde Fløjgaard Andersen*

*Temperature by Vectors Market from Noun Project modified by Mathilde Fløjgaard Andersen*

*Photography by iconghost from Noun Project modified by Mathilde Fløjgaard Andersen*

*Binoculars by Zohaib Bajwa from Noun Project modified by Mathilde Fløjgaard Andersen*

*Leaves by Andrew Aprillio Raharjo from Noun Project modified by Mathilde Fløjgaard Andersen*

*Vegetable by Danang Marhendra from Noun Project modified by Mathilde Fløjgaard Andersen*

*Wood by Michael Appleford from Noun Project modified by Mathilde Fløjgaard Andersen*

*Food by Adrien Coquet from Noun Project modified by Mathilde Fløjgaard Andersen*

*Bench by Kawalan Icon from Noun Project modified by Mathilde Fløjgaard Andersen*

*Pigeon by arte ador from Noun Project modified by Mathilde Fløjgaard Andersen*

*Sea by Ricons from Noun Project modified by Mathilde Fløjgaard Andersen*

*Crowd by Natasja Buer Toldam from Noun Project modified by Mathilde Fløjgaard Andersen*

*Texture by lastspark from Noun Project modified by Mathilde Fløjgaard Andersen*

*Illustration 61: Own illustration with CAD entourage, textures, and cut-outs by unknown except*

*Temperature by Vectors Market from Noun Project modified by Mathilde Fløjgaard Andersen*

*Leaves by Andrew Aprillio Raharjo from Noun Project modified by Mathilde Fløjgaard Andersen*

*Photography by iconghost from Noun Project modified by Mathilde Fløjgaard Andersen*

*Pigeon by arte ador from Noun Project modified by Mathilde Fløjgaard Andersen*

*Vegetable by Danang Marhendra from Noun Project modified by Mathilde Fløjgaard Andersen*

*Texture by lastspark from Noun Project modified by Mathilde Fløjgaard Andersen*

*Crowd by Natasja Buer Toldam from Noun Project modified by Mathilde Fløjgaard Andersen*

*Binoculars by Zohaib Bajwa from Noun Project modified by Mathilde Fløjgaard Andersen*

*Bench by Kawalan Icon from Noun Project modified by Mathilde Fløjgaard Andersen*

*Illustration 62: Own illustration with CAD entourage, textures, and cut-outs by unknown*

*Illustration 63-64: Own illustration with CAD entourage, textures, and cut-outs by unknown*

*Illustration 65-67: Own illustration*

*Illustration 68-69: Own illustration with CAD entourage, textures, and cut-outs by unknown*

*Illustration 70-71: Own illustration*

*Illustration 72: Own illustration except*

*Mouth by Vectors Point from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Eye by AliWijaya from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Ear by Cherry from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Hand by iconcheese from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Nose by Eman Hermawan from Noun Project modified by Mathilde Fløjgaard Andersen*  
*Illustration 73-74: Own illustration with CAD entourage, textures, and cut-outs by unknown*  
*Illustration 75-76: Own illustration*  
*Illustration 77-78: Own illustration with CAD entourage, textures, and cut-outs by unknown*  
*Illustration 79: Own illustration with CAD entourage by unknown*  
*Illustration 80-88: Own illustration*  
*Illustration 89: Own illustration except*  
*Nimfon Square by Yiorgis Yerolymbos from moool.com*  
*Mitsui Plaza by unknown from landezine.com*  
*Slotshaven by unknown from sted cph*  
*Freedom Square by Norbert Tukaj from Archdaily*  
*Van Reenenpark by unknown from HB Adviesbureau*  
*Täby Park by unknown from funkia*  
*Bilya Marlee by unknown from Lanscape Architecture Aotearoa*  
*Addenbrooke's NHS 70 Garden by unknown from Bowles & Wyer*  
*Illustration 90-93: Own illustration*  
*Illustration 94: Own illustration with CAD entourage, textures, and cut-outs by unknown*  
*Illustration 95-98: Own illustration*  
*Illustration 99: Own illustration*



## Online Spørgeskema

<https://www.survey-xact.dk/LinkCollector?key=RSJFDHUMU132>



# AUTISME I BYRUMMET

**Mit navn er Mathilde Fløjgaard Andersen fra Aalborg Universitet. Jeg er lige nu i gang med mit kandidatspeciale i Urban Arkitektur, hvor jeg arbejder med hvordan Nørresundby Torv kan gøres til et trygt sted for personer med autisme.**

Jeg har selv autisme, men ønsker også at inddrage andres oplevelser til mit speciale projekt. Derfor vil jeres input være til stor hjælp i mit videre arbejde.

Det vil være muligt at deltage på to forskellige måder, enten ved at besvare et online spørgeskema eller ved at deltage i et fysisk gruppeinterview. Det er dog muligt at deltage i begge dele. Alle besvarelserne vil være anonyme.

### Om projektet:

Visionen for mit kandidatspeciale er at udvikle et designforslag til en transformation af Nørresundby Torv, som gør stedet til et trygt og attraktivt sted for personer med autisme. Et sted, som understøtter selvstændighed og plads til forskellighed i det offentlige rum. Projektet er på nuværende tidspunkt centreret omkring at give den enkelte kontrol over sanser stimuli - så det er muligt både at opsøge nye indtryk og at kunne trække sig tilbage til et neutralt sted, hvor man bliver skærmet for støj og andre gener.

*Fysisk gruppe-interview*

## Praktisk information

Torsdag 21. marts  
kl. 15:00-17:00

Lokale udlånt af  
Autismecenter Nordbo

6-10 deltagere (mulighed for  
at have støttepersoner med)

### Struktur:

- Starter ud med en meget kort præsentation af kandidatspecialet
- Generel samtale omkring oplevelser af at have autisme
- Mere specifik samtale fokuseret på oplevelser af Nørresundby Torv med mulighed for at skrive positive/negative oplevelser ned



## *Appendix A*

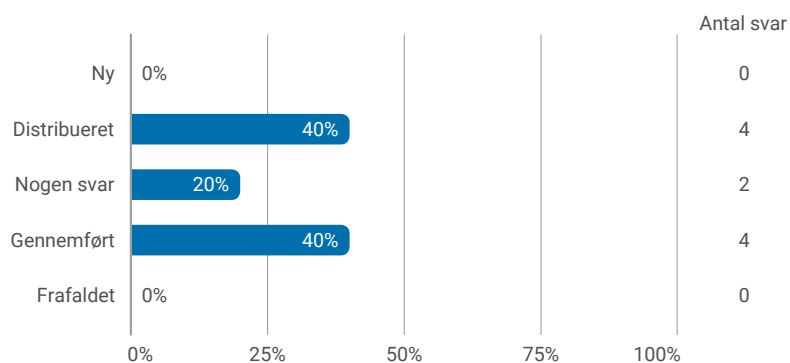
# **User Involvement**

In the early stages of the design process, contact was made with Autismecenter Nordbo to schedule semi-structured interviews with the residents and employees of the housing accommodation at Sankt Peders Gade. An information poster was sent to invite for a group interview. Initially, interest was shown in the project and participating in the interview, however, only one person reached out that they were able to attend. Therefore, the user involvement was limited to only involving an online questionnaire.

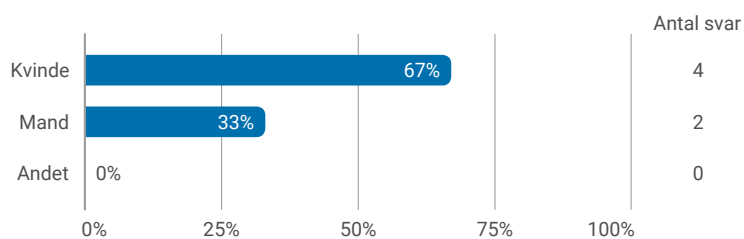
In the following pages, the responses from the online questionnaire can be seen.

# Online questionnaire

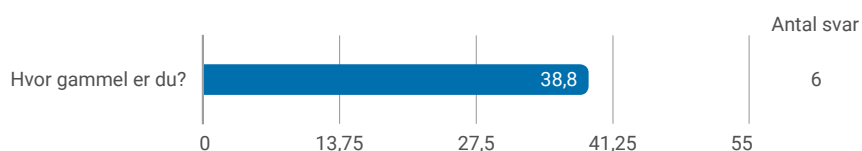
## Samlet status



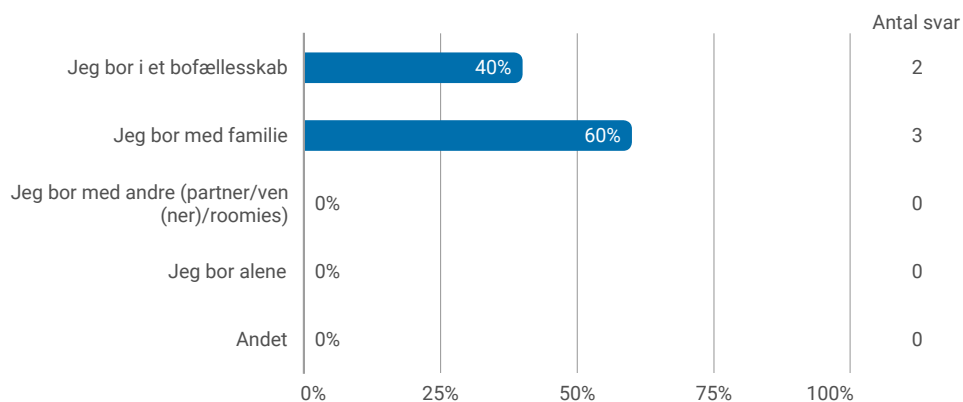
## Hvad er dit køn?



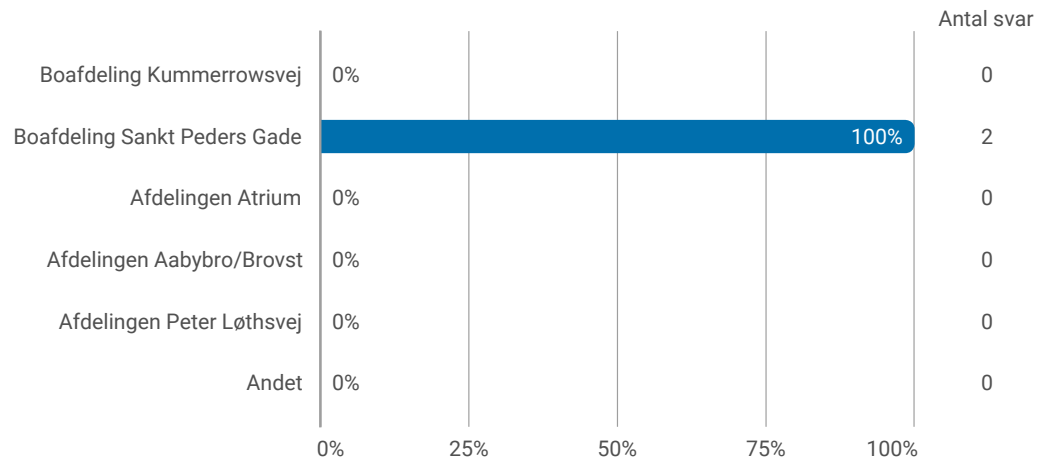
## Hvor gammel er du?



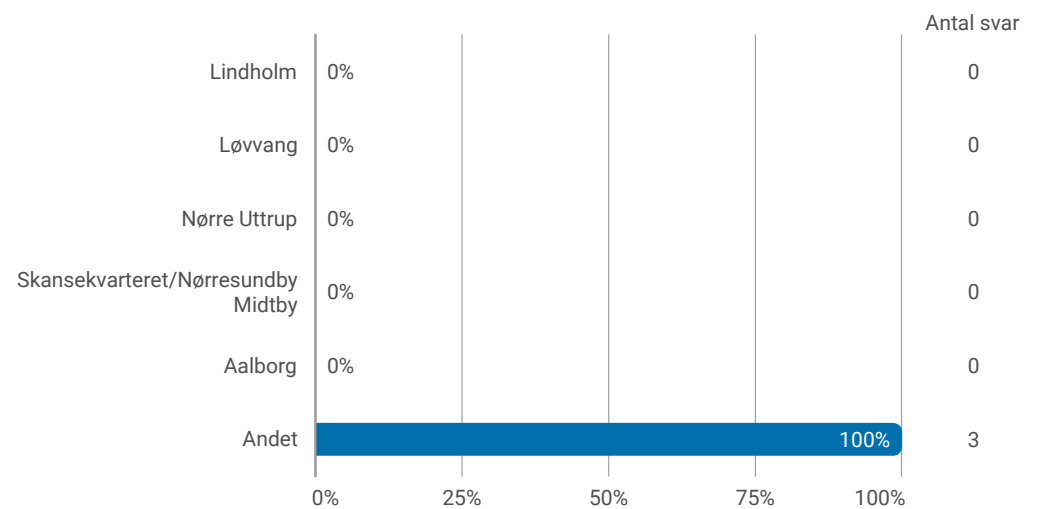
## Hvad er din bosituation?



### Hvor bor du henne?



### Hvor bor du henne?



### Hvad er din tilknytning til Autismecenter Nord-Bo? (Valgfri)

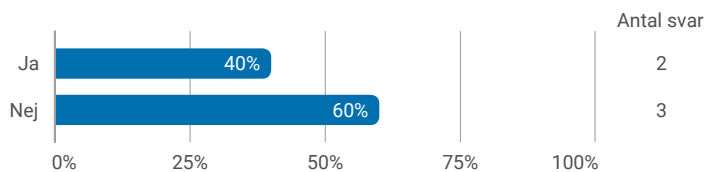
Pædagog

Personale i bo-miljøet på Sankt Peders Gade, pædagogisk medarbejder

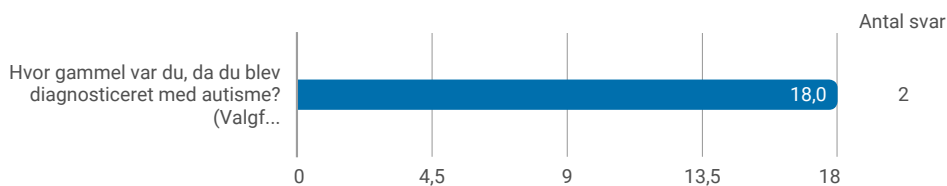
Jeg er beboere og har autisme.

Ansæt

## Er du diagnosticeret med autisme?



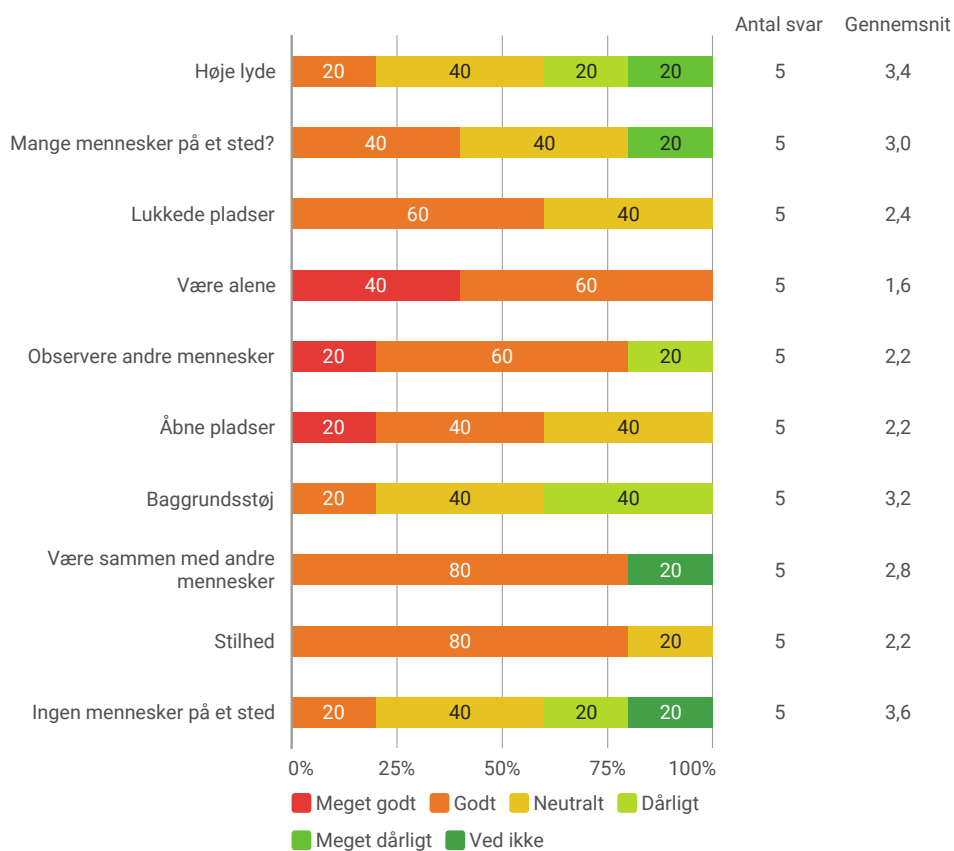
## Hvor gammel var du, da du blev diagnosticeret med autisme? (Valgfri)



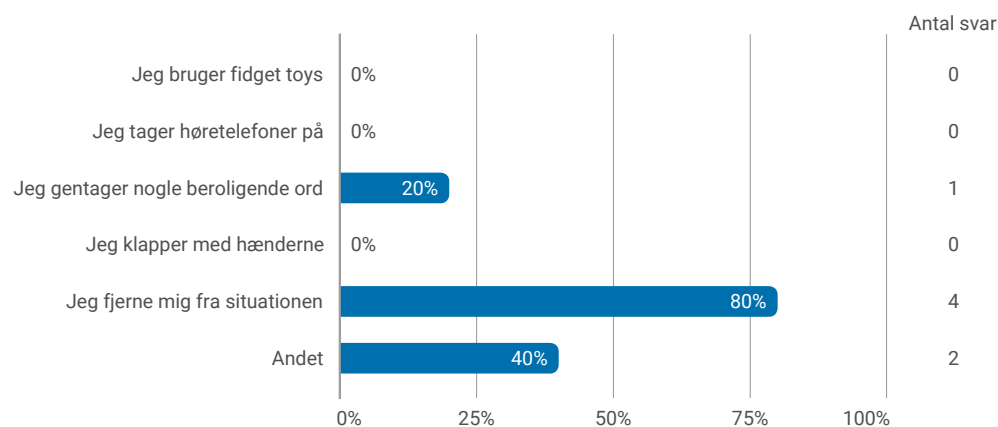
## Hvad var anledningen til at du undersøgt for autisme? (Valgfri)

Havde det dårligt alt føles som en stor sort klump - kan ikke huske ret meget for den tid.

## Hvordan har du det med følgende?



Hvordan håndterer du stressede situationer?  
(Vælg gerne op til flere)



**Hvordan håndterer du stressede situationer?**

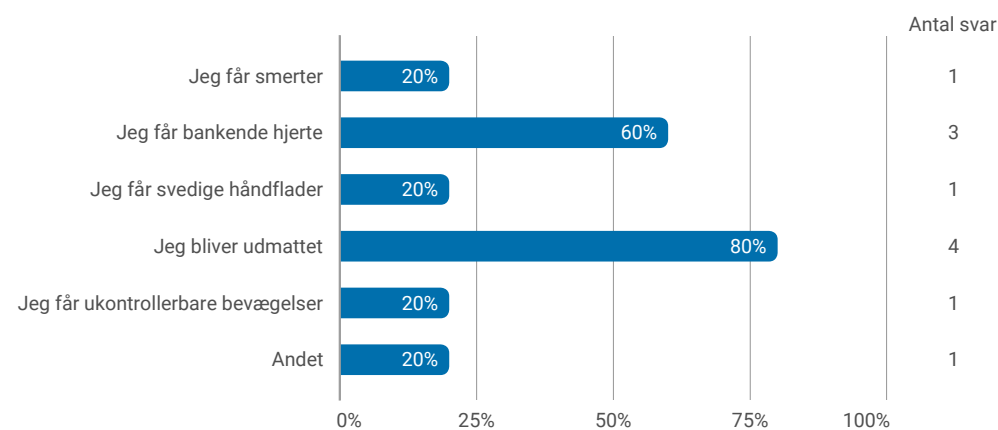
(Vælg gerne op til flere)

- Andet

Løber en tur eller finder en afslappende aktivitet (film, musik, spil, SoMe mv.)

Forsøger at løse situationen, så den ikke er stressende

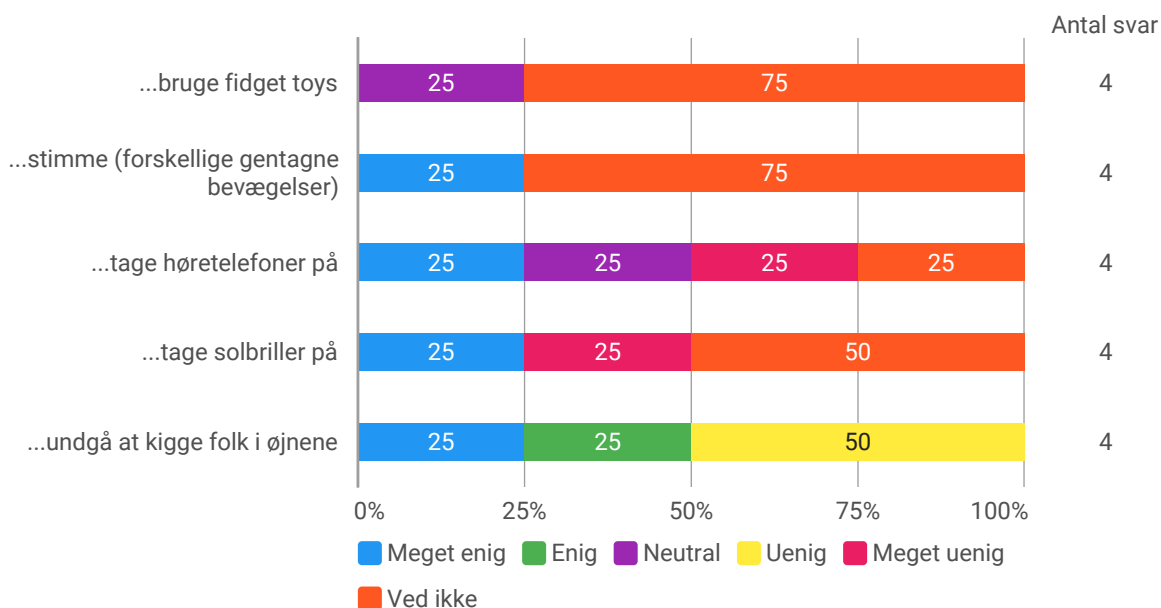
Hvordan oplever du at være i stressede/ubehagelige situationer?  
(Vælg gerne op til flere)



**Hvordan oplever du at være i stressede/ubehagelige situationer?  
(Vælg gerne op til flere) - Andet**

Mister overblik

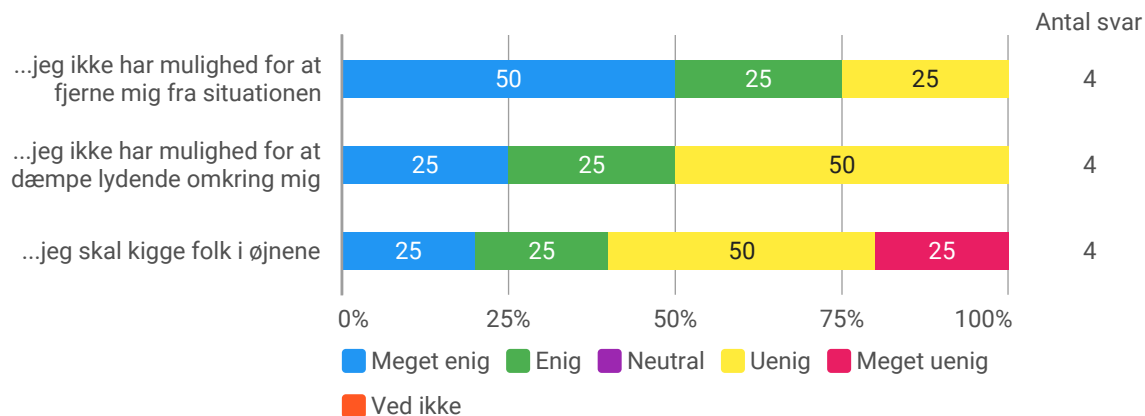
**Det beroliger mig, at...**



**Er der andre ting, som ikke er blevet nævnt, der beroliger dig i stressede/ubehagelige situationer? (Valgfri)**

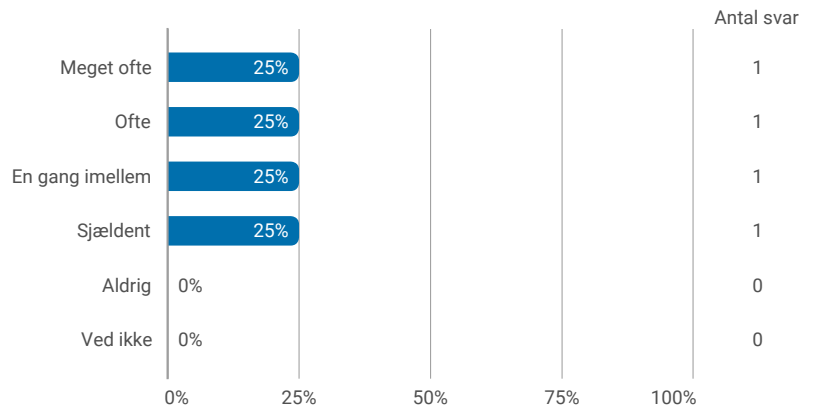
Andres tilstedeværelse

**Det stresser mig, hvis...**

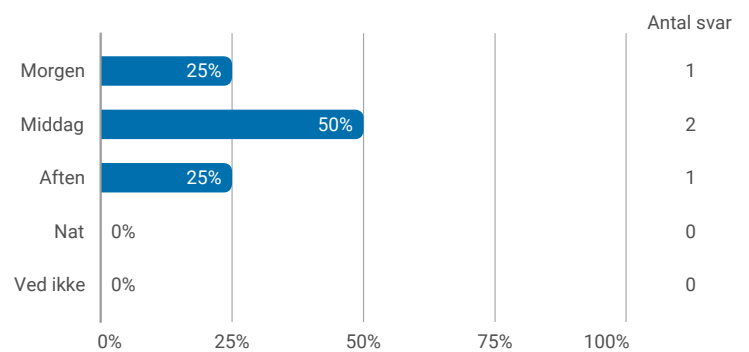




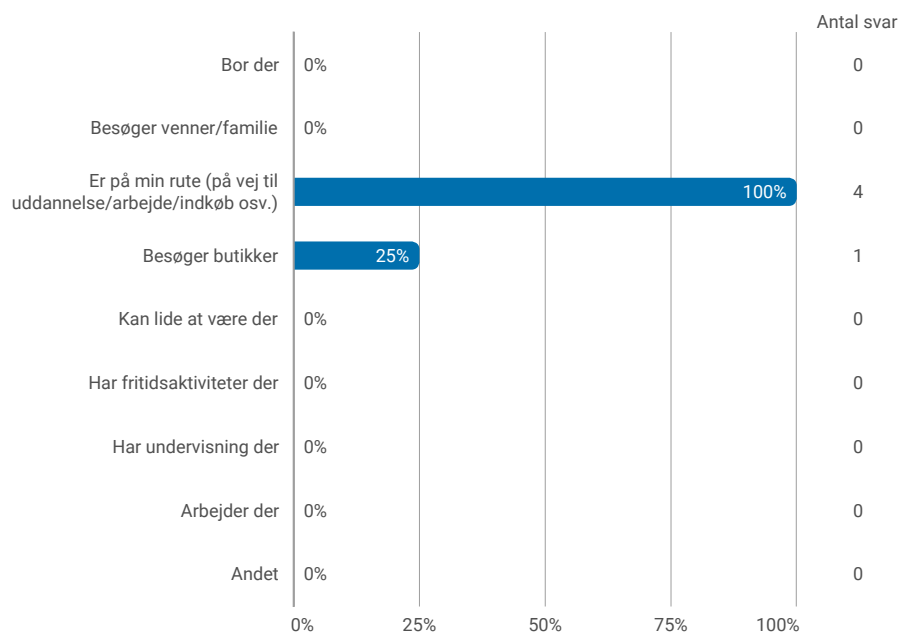
### Hvor ofte besøger du Nørresundby Torv?



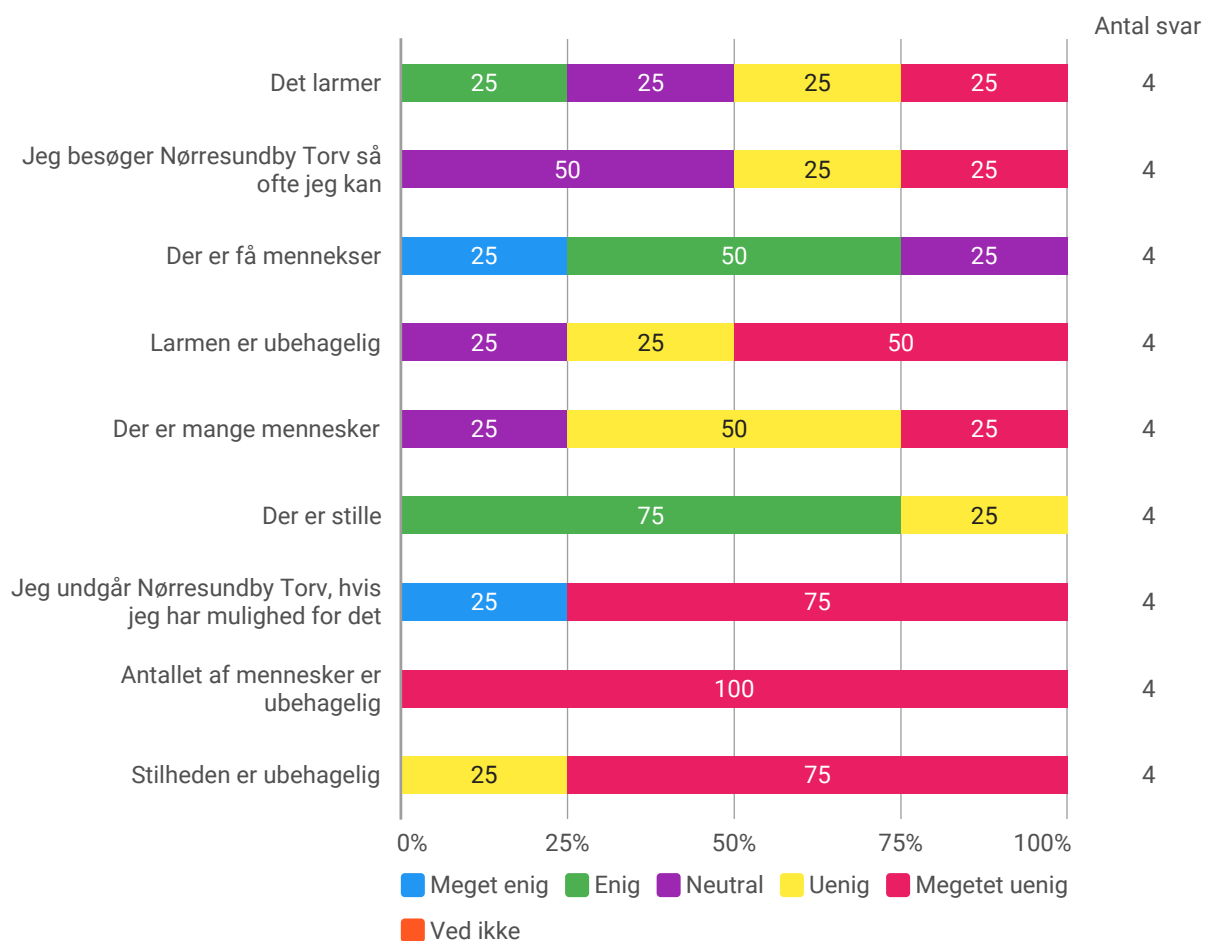
### Hvornår på døgnet besøger du oftest Nørresundby Torv?



### Hvorfor besøger du Nørresundby Torv? (Vælg gerne op til flere)



## Hvordan oplever du Nørresundby Torv?



### Er der andet, du oplever ved Nørresundby Torv? (Valgfri)

Det er svært at hvide når man må gå da vejen og pladsen har meget ens farve

### Nævn op til tre positive ting ved Nørresundby Torv

roligt, centralt og kendt

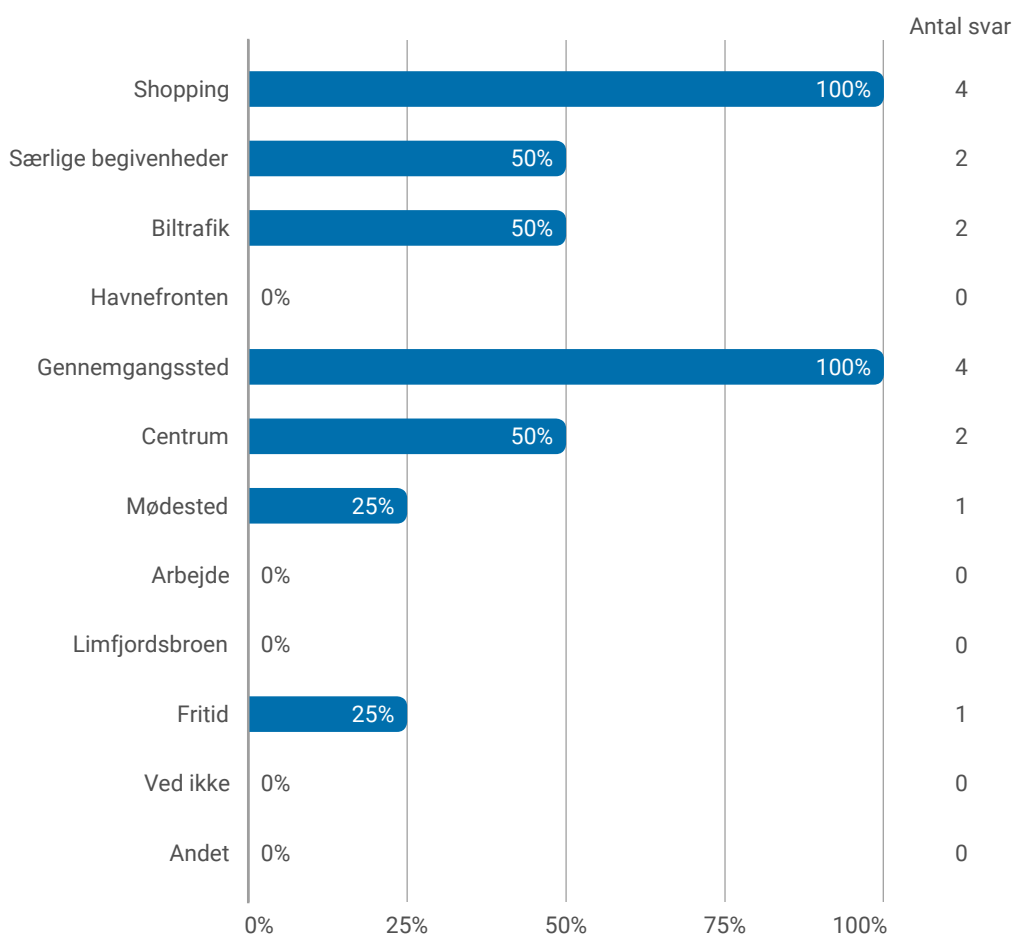
Godt trafikalt knudepunkt for offentlig transport. Markedsdage giver liv.

Der er hyggeligt, Der er gendbrugs butikker og det centralt

Den flotte belægning, ikke så mange biler, stor plads der giver mulighed for aktiviteter fx grøntorvet

Nævn op til tre negative ting ved Nørresundby Torv
Trafiksituationen kan være lidt uoverskuelig og der kan mangle plads til at komme omkring.
Kan ikke - er træt af det bliver lavet om.
Det er ikke helt tydelig, hvor selve vejen er
Der er for lidt natur, vej og plads har får ens farve og Der er for få bænke

Hvad forbinder du med Nørresundby Torv?  
(Ved gerne op til flere)



Hvad forbinder du med Nørresundby Torv? (Ved gerne op til flere) - Andet
Offentlig transport.