



TALLINN UNIVERSITY OF TECHNOLOGY

SCHOOL OF ENGINEERING

Academy of Architecture and Urban Studies

TOWARDS SUSTAINABLE MOBILITY – THE SPATIAL INTERVENTIONS IN THE NODES OF HAAPSALU

JÄTKUSUUTLIKU LIKUVUSE SUUNAS – RUUMILISED SEKKUMISED HAAPSALU SÕLMPUNKTIDES

MASTER THESIS

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Tallinn 2023

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ABSTRACT

The aim of the thesis was to research what is the role of urban planning in achieving sustainable mobility, whether intervening in the nodes of the town and making the actively used public space more attractive will benefit the environment and the consumption habits of people. The master thesis offers an overview of different approaches to urban planning. Among different approaches, the 15-minute city and slow city concepts are introduced with the emphasis on lively and human-scale public spaces. The research part of the thesis also introduces case studies of Tåsinge square in Copenhagen and Templeuve railway station near Lille, France, a review of the town's history and its future developments as well as the results of a map-based survey carried out among the residents.

The map-based questions of the survey collected numerous responses and suggestions. The respondents were also asked about their consumption habits and knowledge about climate targets. In general, it could be said that the people of Haapsalu are very interested in what is happening in the public spaces of the town and want to have a say. It was emphasized that the local municipality should primarily focus on improving the well-being of the residents and not only on the tourists and summer visitors. The town's public spaces, infrastructure network and landscaping should all be improved and developed in a thoughtful and comprehensive manner. The public spaces should be planned functionally and deliberately with a clear priority given to pedestrians. Cars should be removed from the old town as much as possible and the walking and cycling network could be continuous. The public spaces in the residential areas with apartment buildings should be developed for more active use.

Relying on the results of the survey, the analysis of the town's master plan and possible future developments, the thesis proposes four possible scenarios for the town's future and interventions in three most active nodes of the town - the area near the biggest intersection of the town as business node, the old town square – Lossiplats as tourism node and the area in front of the railway station as transport node. The selection of the intervention locations was based on the notion of where the interventions could have the biggest effect on improving the residents' consumption habits as well as the overall image of the town.

Even though applying changes to the nodes of public spaces, the change towards sustainable mobility is not possible when the mindset and consumption habits of people do not change. Aiming for truly sustainable mobility requires other simultaneous changes. For instance, reducing the speed of vehicles reduces the risk of traffic accidents and their severity. Where possible, the width of driving lanes should be reduced, and the sidewalks widened for showing

the change in priority. Building and reconstructing infrastructure should always be done prioritizing the weaker traffickers – children and disabled people. Instead of building new roads the focal point should be improving the existing sidewalks, making them accessible, smooth and well-connected. Having a tax on parking could reduce many problems regarding the overflow of cars in the high season and at the time of big events. The long-term decisions of planning a town should be carried from the principles of densifying the town center, connecting the pedestrian and cycling networks, data-based planning, integrating different solutions and enforcing MaaS systems. The mobility and sustainability of Haapsalu could also benefit from a location-specific household budget survey and a systematic analysis and action plan of mobility infrastructure.

KOKKUVÕTE

Eesti liikuvust iseloomustab kõrge autostumise määr ning elanike kohta registreeritud sõidukite arv on Euroopa suurimate seas. Samas soovib Euroopa Liit olla esimene kliimaneutraalne kontinent maailmas ning liitu kuuluvate riikide vahel sõlmiti 2019. aastal Euroopa Roheline Kokkulepe, mis seab 2050. aastaks eesmärgi vähendada süsinikemissioone 90% võrra. Transpordisektoril on siin suur roll ning eesmärgi täitmiseks peab muutuma põhimõtteline arusaam igapäevasest liikuvusest. Maailm on linnastumas ning elu koondub üha enam suurlinnade ümbrusesse, mistõttu on eriti oluline pöörata tähelepanu ka väikelinnadele ja maapiirkondadele, et suurlinnadest kaugemal asuvad kohad ei kaotaks inimesi, töökohti ja investeringuid. Linnastumise tendents mõjutab ka Eesti väikelinna Haapsalut, kus trendiks on elanike vähenemine. Magistritöö fookuseks on Haapsalu linn ning selle liikuvuse parandamine läbi avaliku ruumi sekkumiste.

Lõputöö eesmärgiks oli uurida, milline on linnaplaneerimise roll liikuvuse jätkusuutlikkuse saavutamisel ning kas sekkumised linna sõlmpunktides ning tihedas kasutuses oleva avaliku ruumi kuvandi atraktiivsemaks muutmine võiks avaldada positiivset mõju nii keskkonnale kui ka inimeste liikumisharjumuste muutmisele. Lõputöö raames on tutvustatud erinevaid linnaplaneerimise praktikaid ja lähenemisi. Pidades silmas liikuvust, on headeks lähenemisteks näiteks näiteks 15-minuti linn ja aeglane linn. Lõputöö uurimuslik osa tutvustab avaliku ruumi planeerimise näiteid Euroopast, Haapsalu linna kujunemislugu, linna arenguplaane ning Maptionnaire platvormil linnaelanike seas läbiviidud kaardipõhise küsitluse tulemusi.

Läbiviidud küsitlusest selgub, et elanikud on huvitatud sellest, mis toimub linna avalikus ruumis ning soovivad selles kaasa rääkida. Läbivalt tuli vastustest välja soov, et kohalik omavalitsus peaks eeskätt tegelema kohaliku elanikkonna heaolu parandamisega, mitte ainult turiste ja suviseid külastajaid meeles pidama. Mereäärne linn peaks end rohkem merele avama ning võimaldama inimestele parema juurdepääsu kaldale, linnahaljastust tuleks võimalikult suures ulatuses säilitada ning teadlikult arendada. Linna avalik ruum peab olema funktsionaalne ning andma selge prioriteedi jalakäijatele. Autosid peaks vanalinnast eemal hoidma ning jalg- ja jalgrattateede võrgustik peaks olema hästi ühendatud ja sujuv.

Lõputöö viimane osa pakub välja neli võimalikku stsenaariumit linna tuleviku kujunemisel. Magistritöö raames koostatud projektlahenduses on valitud sekkumiste asukohad lähtuvalt läbiviidud küsitluse tulemustest ning kohtades, kus loodav lahendus võiks avaldada suurimat mõju. Ruumiliste sekkumiste asukohad on Haapsalu kaubamaja lähiümbrus kui ärisõlm, vanalinna keskväljak Lossiplats kui turismisõlm ning Haapsla raudteejaama lähiümbrus kui

transpordisõlm. Viimase sekkumiskoha puhul on oluline märkida, et kuigi see ei ole hetkel nii suures kasutuses kui teised sõlmpunktid, arvestab projektlahendus Haapsalu raudteeühenduse taastumisega ning jaamahoones asuva Raudtee- ja Sidemuuseumi külastajakeskkonna ning ekspositsioonialade arenemisega, mille tõttu muutuks raudteejaam ja selle ümbrus tihedamini külastatavamaks ning funktsionaalselt mitmekesisemaks ja atraktiivsemaks, kui seni.

Kuigi magistritöös pakutud lahenduste elluviimine ning avalikus ruumis selgelt jalgsi või rattaga liiklemise eelistamine oleks jätkusuutliku liikuvuse aspektist positiivse mõjuga, on suur osa ka inimeste mõtteviisil ja käitumisharjumustel. Lisaks avaliku ruumi kasutuse muutmisele on soovitatav vähendada sõidukite liikumiskiirust ja sõiduradade laiusi, et keskkond ei soodustaks kiiruseületamist ning autojuht oleks tähelepanelikum ja tal oleks aega arvestada nõrgemate liiklejatega. Lisaks tuleks muuta paremaks kergliiklustaristut – kõnni- ja rattateed peaksid olema hästi ühendatud ja sujuvad ning aktiivsemate kasutusega kohtade juures peaks olema võimalik parkida isiklikku jalg- või tõukeratast kaetud ning vargakindlas kohas. Efektiveks vahendiks autode vähendamisel linnakeskuses on parkimise piiramine ajaliselt või parkimistasu kehtestamine. Pikaajalises perspektiivis tuleks eelistada linna tihendamise praktikat, et vähendada vajadust igapäevasteks autosõitudeks. Tuleviku liikuvus peaks olema kavandatud teadlikult – lähtuma uuringutest ning olema andmepõhine, soosima integreeritud lahendusi ning käsitlema liikuvust kui teenust.

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1 INTRODUCTION

1.1 CONTEXT

Mobility in Estonia is characterized by the high and increasing rate of car use. The current trend is the increase of car use at the expense of moving by foot or public transport. The number of people going to work by public transport, bicycle or by foot has decreased by 120 000 during 18 years. In the same period, the number of registered vehicles has increased by almost two times. By the year 2019, there were 598 registered vehicles for 1000 citizens – this figure places Estonia among the first countries in Europe in the list of vehicles per capita. (Statistikaamet, 2022)

The European Union aspires Europe to be the first climate neutral continent in the world by the year 2050. The agreement concluded in 2019 sets a target to reduce net greenhouse gas emissions by 90% by 2050. Meeting the climate targets requires important and fast changes in transport networks, road and energy use, vehicles and levels of service in public transport. (European Commission, 2023) The conceptual understanding of everyday mobility needs to change.

The low effectiveness of current mobility arrangement has an impact on several fields, such as people's health, quality of life, economy and nature. The faults of current arrangements have been acknowledged in many countries and the active search for solutions is ongoing. Due to fast urbanization, it is crucial to improve life in rural areas and shrinking towns. The urbanization trend is happening in Estonia as well - the population increases in and around the capital, Tallinn, whereas the smaller towns and rural areas are losing people, jobs and investments (SA Eesti Koostöö Kogu, 2020). Same is happening in the small town of Haapsalu, which is the focal point of this thesis.

1.2 AIM OF THE THESIS

The aim of the thesis is to explore and analyze the possibilities of designing well-working public spaces that would create an inspiring environment for their users as well as be a hub for sustainable mobility in the context of an Estonian small town - Haapsalu. Although high-functioning public spaces generate an attractive image of any town or city in question, they usually tend to have an even wider influence on the town and its residents and visitors. The influence could be revealed in the stronger feeling of belonging and community or even the overall habits of consumption. Therefore, designing spaces of great quality can be one of the key elements in achieving the climate neutrality targets.

1.3 OBJECTIVES

This master thesis researches the impact of a well-working public space to mobility in several contexts – local, regional and global. The intention of the thesis is to provide an example of densifying the town center and creating inviting, pedestrian oriented public spaces in the nodes of the town to help along making the shift towards a sustainable future.

Personal car based urban planning and division of urban space decreases the quality of life and drives people from densely populated areas to suburbs or rural areas while planning around the use of different modes of transport improves the urban living environment and could stop urban sprawl. The preference on transport mode can be steered to a certain extent. It is necessary to provide knowledge, experiences and include the social factors in addition to urban planning and providing the sufficient infrastructure to influence the mobility behavior.

1.4 APPROACH AND METHODOLOGY

The master thesis approaches the concept of sustainable mobility by proposing spatial interventions in locations where they could have a broader impact – the nodes of urban space. The research methods include a review on literature of the recent best practices in designing public spaces as well as examples of methods and built environment related to the topic. The master thesis provides an overview of Haapsalu town, its current challenges, future developments and summarizes a survey carried out among the residents of Haapsalu. The survey was conducted using the Maptionnaire platform which enables asking map-based questions from the respondents. The results of the survey illustrate the public view of the town as well as the residents' suggestions of what should change in public space. The last part of the thesis uses scenario-planning as a tool to predict the town's future developments and illustrates the architectural project designed for Haapsalu public spaces.

Keywords: sustainability, mobility, public space, Haapsalu, master thesis.

2 DEVELOPMENT TRENDS IN MOBILITY

2.1 CURRENT CHALLENGES

The global challenges of mobility are mainly related to the unsustainability of car-based urban planning. The approach based on the prognosis of the rise of car-use is not sustainable since it comes with high costs, need for space and environmental impact. Personal car based mobility is inefficient and a waste of space. In many cities the driveways and parking lots take up until 50% of urban space while at the same time, the personal car stands idly in the street, parking lot or garage 95% of the time of its exploitation. (Pasaoglu Kilanc, et al., 2012)

Personal car based transport has a big impact on the environment. Car traffic is the biggest polluter of the transport sector calculated per passenger kilometer. In addition to carbon dioxide, vehicles with internal combustion engines release nitrogen and sulfur oxides and fine particles into the environment, which have a negative impact on health. Considering different modes of transport, walking, cycling and public transport have the least impact on the environment. As a result, the transport system from the 20th century is being replaced by the system of mobility and accessibility.

All members of the society need to be provided equal economical and social opportunities. Being dependent on the personal car and limited alternative modes of transport decreases the possibilities for independent movement in an aging society. (Samsonova, 2021) All members of the society need to be provided equal economical and social opportunities. Being dependent on the personal car and limited alternative modes of transport decreases the possibilities for independent movement in an aging society.

The personal-car-based mobility aggravates a sedentary lifestyle and the lack of regular movement which is one of the main reasons for premature death. The World Health Organization (WHO) considers integration of people's need for physical activity to the everyday mobility more sustainable than regular physical training. (World Health Organization, 2018)

The triumph of home offices and hybrid working arrangements make cities and towns compete with each other for attracting smart workers and different specialists to benefit from their tax payments. The young specialists are not tied to the cities with the best career possibilities anymore and are reevaluating their demands on residency location. Other factors, such as low living costs, safety, closeness to greenery are considered. Therefore, smaller towns and even the rural areas are becoming more competitive and attractive for newcomers.

During the last few years, the modes of transport have diversified, especially for the younger generation. The solutions of micro-mobility such as electric scooters or hoverboards have become more popular but they have also brought a variety of challenges. The cities were not ready for such active use of micro-mobility – there is a lack of separated roads, determined parking locations and regulations.

2.2 SUSTAINABLE MOBILITY

Achieving the goals for sustainability requires a fast and radical change in mobility. The use of vehicles must become more effective and every day routes must become shorter. The promotion of sustainable mobility requires compromises. In cities the choice is between the quality of public space and the comfort and speed of car traffic. The intercity mobility stands between two choices – the development of road traffic or train transport. The intercity public transport requires flexible mobility services of good quality inside the cities.

Sustainable mobility has become the term for framing the main challenges of mobility. Sustainable mobility does not just equal environmental protection but is also a holistic approach to making people's movement more sustainable. The main aspects and challenges of sustainable mobility are environmental protection, effectiveness, equal access and safety. (Varblane, 2021). Relying solely on the development of technology does not eliminate the current problems of mobility. The cars powered by electricity or hydrogen may reduce the local strain on the environment and self-driving vehicles may increase the safety and comfort, yet neither of the tendencies decrease the need of urban space for cars and possibly lead to the increase of car use.

For best optimization of traffic flows, different modes of transport need to be combined and the transition from one mode of transport to the other needs to be comfortable and simple. For the smooth cooperation of different systems, a digital innovation needs to take place which provides an acceptable alternative to personal cars, considering the cost, efficiency and duration of the trip. Innovative cities are already testing out the new mobility services but in order to implement the service more broadly, the solutions need to also consider smaller towns and rural areas, not just the metropolises or bigger cities.

3 QUALITIES OF GREAT PUBLIC SPACES

3.1 GENERAL INFORMATION

Designing public spaces is a globally trending topic. Cities and towns are rethinking their priorities, experimenting and finding new ways to use their public spaces and to make them more attractive for the people. Whereas in the last century humankind was amazed by the rapid technical evolution and the widespread use of cars and new devices, today we are facing global warming and need to find ways to make living on planet Earth resilient and sustainable. Since the world is urbanizing and over half of the population is living in urban areas (Ritchie & Roser, 2018), it is necessary to understand these processes and make the habitat livable.

Cities are complex structures. They could be perceived as individual ecosystems that provide habitat for people, animals and plants in an urban setting. The ecosystem of one city is connected and intertwined with surrounding areas and other cities. In a more general perspective, all cities, towns and villages create a unified network that links on different levels and aspects. Over time, urban planners and architects have been in search of a perfect city that would meet all the needs of its dwellers and be resilient in the future. The search for an ideal city appears in the utopian city fantasies as well as in modernist post-war city planning where the free-standing individual buildings connected by multi-lane roads were an ideal.

The widespread modernist approach to planning has been criticized frequently for the simple reason of not taking the human scale into account. Jane Jacobs, the famous author of the book "The Death and Life of Great American Cities" states that "automobiles are often conveniently tagged as the villains responsible for the ills of cities and the disappointments and futilities of city planning. But the destructive effects of automobiles are much less a cause than a symptom of our competence at city planning". Understanding how a city works, not only how it looks, is key in Jacobs' work and that is the concept people in leading positions often fail to grasp. "They do not know what to do with automobiles in cities because they do not know how to plan for workable and vital cities anyhow – with or without automobiles." (Jacobs, 1961)

"First we shape the cities – then they shape us" (Gehl, 2010) is a famous quote from a Danish architect and urban planner, Jan Gehl. Stating that the environment that we design and create will undoubtedly influence us in the future and vice versa. If we plan an environment, where the use of personal cars is the most comfortable and efficient way of transport – we

build more roads and parking lots – it automatically has an influence on peoples' consumption habits and their choice of everyday transportation mode resulting in more traffic. Same could be said for cycling– when better conditions for cyclists are created, the streetscape will have more cyclists.

The world is facing global warming and although achieving the wanted carbon neutrality is a process with multiple factors and variables, the quality of public space and the way people use it, is a significant aspect. A good space can inspire people to make better choices daily and invite them to walk or cycle, to meet with friends, sit down to enjoy the weather, play or exercise. All resulting in less car traffic on roads. Less traffic means fewer carbon emissions and better overall health of the population which should be a driving force and trigger to achieve a truly sustainable and environmentally conscious city.

The search for good places continues throughout the world. When building a new environment, we could design it any way we think is best, whereas trying to improve the existing situation might sometimes turn out to be more difficult. Public spaces are used by everyone - people from different social and age groups which makes designing them a sensitive topic. Everybody has their specific needs and expectations for the public space, making it important to carefully consider when and how to intervene. Public spaces should be inviting, accessible, lively and safe. They should provide opportunities for meeting, gathering, relaxing, playing and expressing oneself.

3.2 HUMAN DIMENSION

The focal point of designing all spaces should be people and human scale. People are the driving force in cities and without people, there would not be cities. We tend to romanticize medieval towns with their narrow and crooked streets, their intimate restaurants and car-free squares. Living in the old town is nowadays often considered a luxury and a privilege whereas at the time they were built, it was seen as a normal way of life. The medieval old towns were built much before the exponential development of technology and motorized vehicles took place. That meant that the towns did not need to consider the space needed for cars and the built environment was solely tied to the measurements of a human and at most, a horse carriage.

It seems that today, the human scale can easily be forgotten when designing a new building or developing new quarters. Small scale means eventful, intense and "warm" cities when large spaces and buildings signal an impersonal, formal and cool urban environment. Walking along

long streets with dull and mute facades has a tiring effect on us because there is nothing that draws our attention besides the wish to reach our destination sooner. In large squares or long straight streets, people tend to fasten their pace to “get through” this part to reach a more interesting environment quicker. This is due to the human eye that has developed to satisfy the ability to walk on a horizontal plane. Also, large-scale vertical buildings such as skyscrapers are a magnificent sight when observed from far away, but as we get closer, the perception of the building changes because people can only have contact with the first five floors of buildings. As the building gets higher, the connection between the higher floors and the street gets weaker. (Gehl, 2010)

3.3 LIVELINESS

Nothing happens because nothing happens because nothing is interesting
Something happens because something happens because something is interesting (Gehl, 2010)

The atmosphere of the place is created by a mix of different factors – buildings, traffic, greenery, accessibility, attractions and most importantly – the people using the space. People are the greatest attraction of a city. When encountering a place where we see people enjoying themselves, for example a cafe, urban square or shopping street, it intuitively appears inviting and safe. Therefore, creating public spaces that encourage liveliness in the city should be a goal in placemaking. People are the same all around the world and they will gather when given a good place to do it, no matter the climate.

Whereas having lots of people in the streets is a good indication, the time they spend there is just as important. A lively street might not always be welcoming and a popular spot for leisure when people just rush through it. That is why all dense urban environments might not necessarily produce life in the streets. What a lively city really needs is a combination of good inviting city space and a certain critical mass of people who want to use it. Therefore, a high density is not essential for achieving a good public space. (Gehl, 2010)

One of the key aspects of making a public space work well is to make use of the opportunities of the ground floor. The ground floor is where a building meets the city and the environment pedestrians experience most intensely. The lower floors of the buildings act as edges that define the space around them. They provide the best opportunities for sitting and standing which is why having an active ground floor policy increases the quality of public spaces. A 2003 study of Copenhagen shopping streets shows that the activity level in front of active facade is seven times greater than in front of passive facades. (Gehl, 2010)

3.4 SPEED

Speed is an important factor in how humans experience the space around them. Moving slowly (walking, cycling) enables us to see details and faces and encourages people to meet expressions. In contrast, moving at a higher speed, we miss out on details and the whole scale needs to be magnified for having enough time to react. To walk in an environment that is made for fast-moving cars will be uninteresting and tiring.

Slow traffic means lively cities. Moving by foot allows us to have coincidental social interactions, as well as create a better feeling of belonging and community. Public spaces should be designed with short logical routes, small spaces and a clear city space hierarchy to draw attention to the most important places. The most unprotected traffickers – pedestrians and cyclists need to be given priority. This could be achieved by reducing the speed limits for cars, prioritizing pedestrians and cyclists at intersections and entrances, removing obstacles from their paths, separating the lanes and generally, creating a safe environment which makes walking and cycling inviting and a preferable mode of transport. (Gehl, 2010)

In addition to the increased level of liveliness and safety in the public space, focusing on pedestrian and cycling infrastructure also helps to save space and use fewer resources than any other form of transport. When people integrate walking or cycling into their everyday errands, it helps to improve the overall health of the population since less time is spent behind the steering wheel (Figure 1, Overstreet).

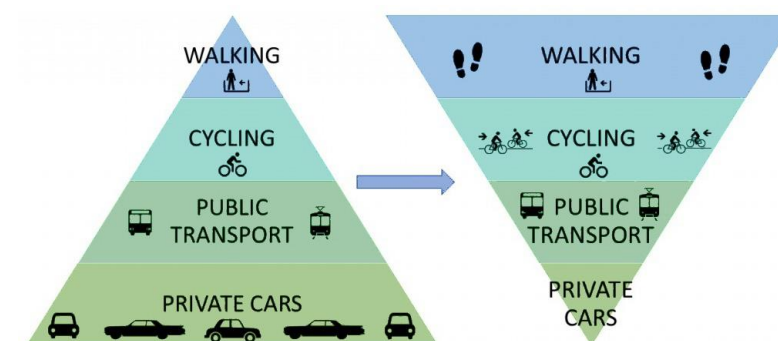


Figure 1. Desirable mentality shift in space making

3.5 THEORIES AND APPROACHES

3.5.1 15-minute city

Haapsalu is a compact town with everything in reach. Yet, as emerged from the survey, many prefer to use personal cars for short distances. The need to get everywhere by car and overloading the town's narrow streets creates a misconception that even more roads and

parking lots need to be built to have a better quality of life. Instead, a more holistic approach and understanding of what makes the urban environment resilient should be enforced. For example, the “15-minute city” and “slow city” concepts could both be applied in the context of Haapsalu.

The 15-minute city (figure 2, Micaël Dessin) is a concept first introduced by Carlos Moreno in 2016 and was initially applied in the city of Paris (Moreno, Allam, Chabaud, Gall, & Pratlong, 2021). The idea is to transform the urban environment in a way that every resident of the town could access their daily needs by walking or cycling in 15 minutes reducing the need for people to use personal motorized vehicles (Cutieru, 2021). To achieve the 15-minute city, the urban structure and mobility possibilities need to be thoroughly analyzed. Providing different services and densifying the town center is an effective way to reduce urban sprawl and make the town neighborhoods lively. A denser urban space is directly related to lower energy consumption related to transport and mobility. (Lefèvre & Mainguy, 2009)

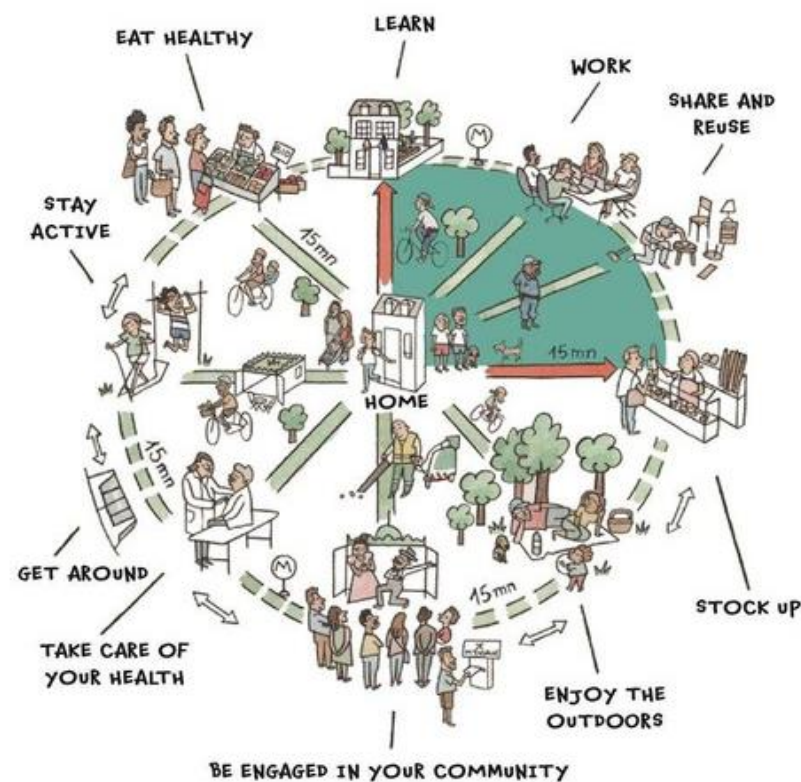


Figure 2. 15-minute city concept illustrated for Paris

The popular theory has been applied in much bigger cities than the little town of Haapsalu and has been proven to upgrade the liveliness of public spaces. The concept should work

effectively in Haapsalu as well since the distances inside the town are short but for some reason, not too many people are seen on the streets on a regular day.

3.5.2 Slow city

Space making has many different variables to consider – the environment, economy, public opinion, politics, consumption habits and so on. One of the key factors, that has been underlined by many recognized urban planners and researchers, is the speed of movement in the urban environment. The importance of reducing the speed limit for vehicular transport and creating public spaces, streets and squares that are customized for human scale and walkability, cannot be emphasized enough.

Moving slower and having more time to interact with our surroundings is one element of the slow city/slow space movement. The movement focuses on high-quality lifestyle and conscious living. It was initiated in Italy in 1986 when local residents protested against opening a fast food restaurant in Rome. Originally, the protest was named the “slow food movement” which stood for local, fresh seasonal cuisine, sustainable farming and the traditions of dining with friends and family. Over time, the movement spread to other aspects of life as well, such as clothing, arts, crafts, building and everyday life. The international network Cittaslow proposes approaches to reverse the trend of acceleration by establishing slowing down as a development strategy in small and medium-sized towns to improve quality of life (Sept, 2021). In 1999, Cittaslow was founded by four Italian mayors, and today it has more than 280 member towns in 32 countries worldwide. The basic idea was to transfer the philosophy of Slow Food to daily life, administration and development in towns with fewer than 50,000 inhabitants. (Cittaslow, 2022)

A slow city should meet the following criteria:

1. Implementing environmental policies that will promote recycling and reuse and reveal the exclusive features of the city and its surrounding.
2. Forming an infrastructure that will support the environmentally friendly use of the land.
3. Advocating environmentally friendly technologies to increase the air quality and city life in and out of the city.
4. Protecting the history of the surrounding area, its important structures and archaeological sites, finding new places, revealing their history and preserving them.
5. Advocating the production and consumption of organic foods.
6. Supporting local production and promoting their use.

7. Forming relations with local manufacturers and consumers, creating means and settings for this.
8. Protecting and supporting regional products that have roots in the past. Ensuring that local foods are known and researching their history.
9. Providing for the demonstration of what true hospitality is and increasing its quality.
10. Increasing the awareness of slow city and ensuring the participation of slow city residents.

(Orhan, 2017)

Although limiting the literal speed of vehicles has been proven to be beneficial for the city, the slow city movement stands for much more - taking time to make decisions, appreciate the surrounding authentic context and having a higher standard of living instead of constantly rushing and wanting to do/have more. Slow cities aim to have a sustainable and resilient environment that works in harmony with nature and economy and therefore provides a livable environment for us as well as for generations to come. The slow space methodology is the most applicable in small or medium-sized towns that have thriving communities which want to enhance their habitat.

4 CASE STUDIES

Public spaces are being transformed all the time. And now, more than ever, cities are exploring ways to make the built environment more efficient, multifunctional and pleasing for its users, keeping the future and green thinking in mind. The chosen case studies below address similar shortcomings in the urban space as Haapsalu and provide location-based solutions.

4.1 CASE STUDY 1 – TÅSINGE SQUARE

Location: Copenhagen, Denmark

Year: 2013-2014

Author: Lytt architecture as

Area: 7500 m²



Figure 3. Overview of Tåsinge square

Tåsinge square (figure 3...9, Lytt) is Copenhagen's first climate adapted urban space. Like a green oasis in a densely populated urban neighborhood, the square can now handle large amounts of rainwater while at the same time adding to a significant green and sustainable

identity for Sct. Kjelds Kvarter at Østerbro to the delight of both citizens as well as the city in general. Square is situated at the heart of Denmark's first climate resilient neighborhood. The handling of rainwater is exposed with high learning and demonstration value. As a green oasis in a densely populated city district, the square will be able to handle heavy cloud bursts in the future. Also, it gives the St. Kjeld's Quarter in Copenhagen a distinctive green and sustainable landmark. (Lytt, n.d.)



Figure 4, 5. The square before and after transformation

The square tells the story of an urban habitat in which the city's rhythm meets nature's cycles and the logic of rainwater forms the urban environment. The activity of citizens, water flows,

the precise geometry in the district and the Copenhagen dialect are all combined with the natural and self-grown approach to vegetation and water. The topography creates an urban space where edges, transitions, and the relationship between inside and outside are essential. The topographical concept allows various types of space that in interaction with solar orientation and the surroundings offers a diverse use of the square. (Lytt, n.d.)



Figure 6. Site plan of Tåsinge square

The square is equipped with luminous sculptures: drops and parasols. Rainwater from the roof surfaces lead to three large storage containers. These tanks, shaped as giant drops, reflect the sky and invites to be climbed on. With hand pumps, one is made to release its content, so water is led to the vegetation. The parasols lead the rainwater to infiltration and provide shelter. The presence of water is given a playful form that functionally fits this particular place in the city. (Lytt, n.d.).

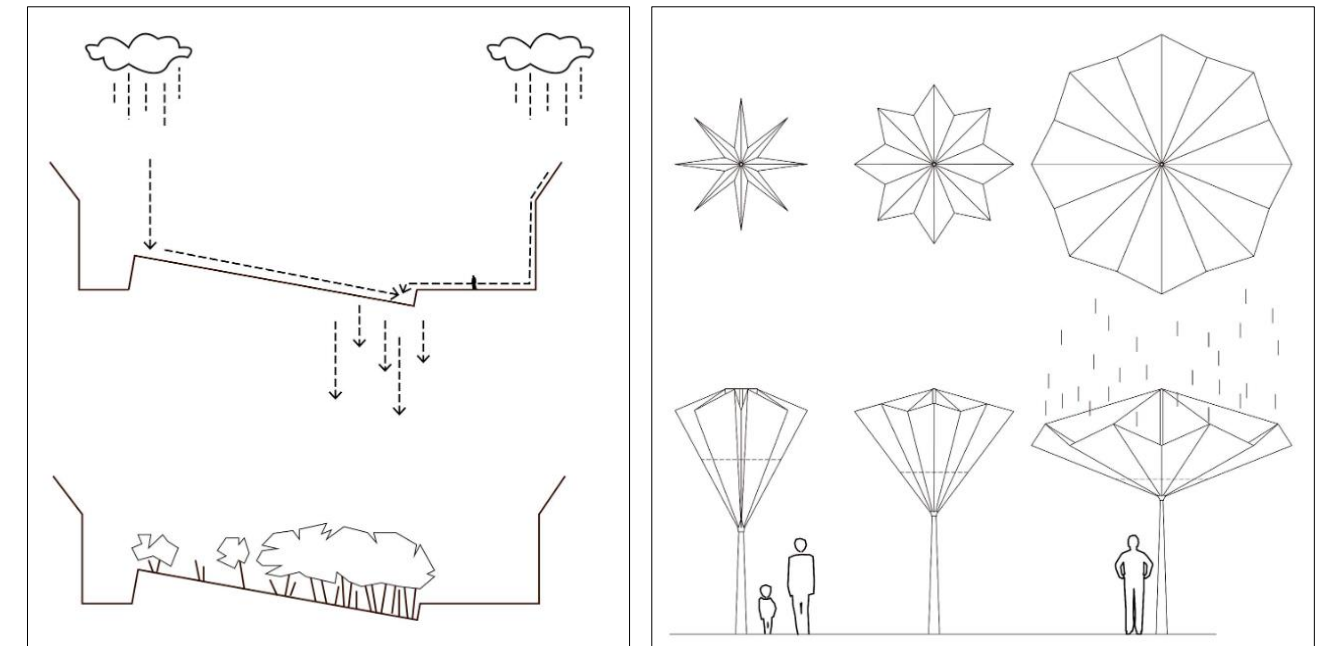


Figure 7. Rainwater collection process

The example of Tåsinge square paves the way for other similar urban space projects and skillfully combines various aspects of urban life dynamics, natural processes and climate. The designed features of the square show a modern approach of collecting rainwater on-site and using it to water the lush greenery. A similar concept could be used for example at the old town square of Haapsalu, where there is currently a problem with rain-water drainage.



Figure 8, 9. Tåsinge square

4.2 CASE STUDY 2 – TEMPLEUVE RAILWAY STATION

Location: Lille, France

Year: 2013

Author: Agence Canopée

Area: 2600 m²



Figure 10. Templeuve square

At the heart of a large communication network, Templeuve railway station (figure 10, 12, 13, 14, Agence Canopée; figure 11, Google maps) has become an exchange hub. It is an important infrastructure within the Lille metropolis, in the North of France. The main objective of the study, while answering the constant increase of the attendance of the site is to re-energize and give the place a new image of a more accessible and better integrated cityspace. While offering access for all, the focus of the project is to organize around the rail all the different modes of urban transport by integrating soft traffic, the electric transport without forgetting the public and individual transport. (Agence Canopée, 2014)



Figure 11. Templeuve station area before reconstruction

Using a contemporary and characteristic touch was the starting point and the intention of the project management, to attract new innovative enterprises and offer a pleasant environment to the rail users. Inspired by the railroad atmosphere, the site is divided into three entities: the forecourt of the station, the exchange hub and the car park. The forecourt is characterized by a welcoming public place with an enclosed garden segmented by a bench. The exchange hub is characterized by an inter-modality of traffic flows and uses. The car park accommodates up to 250 places and is conceived as a continuation of the landscape of the city. (Agence Canopée, 2014)



Figure 12. Site plan of Templeuve station area

The project develops all the relations, consciously or unconsciously, between the traveler and the world of the train. The differences of levels of the garden evoke the platform, the 42 meters long bench calls back the length of trains and seats in the past. The impression of speed is translated by the linearity of coverings and by the organization of the vegetable pallet. The whole project is centered around identity elements such as the metallic blades on the ground, which object references in rails and a model of lighting which reminds the drawing of the catenary posts. (Agence Canopée, 2014)



Figure 13. Templeuve railway station

The project is a part of an initiative of sustainable development with a will and with a participative approach of all the actors while implementing the alternative techniques of sanitation works, furniture of energy-saving lighting, a management plan of the green spaces and the borders of battery-driven vehicles." The service is an essential aspect for this kind of project. It is, in this context and on this territory that the first intermunicipal free shuttle appears, as well as a new bicycle path (green way) combined with a secure bicycle garage. (Agence Canopée, 2014)



Figure 14. Templeuve railway station

As it is in the case of Templeuve, railway stations are often a place for transferring from one mode of transport to the other. The station area before the reconstruction could be described as an undefined and car-based urban environment. The completed project provides a functional public space that combines different modes of transport as well as creates a pleasant environment for pedestrians. As the railway station in Haapsalu will presumably also be an important transportation hub in the future, it is important to pay additional detail to the public space surrounding the station.

5 HAAPSALU

5.1 LOCATION SELECTION

The world is urbanizing and people are moving into cities now more than ever. The same is happening in Estonia, where each year more people are leaving the rural areas and smaller towns to find better work and study opportunities in bigger cities. The trend started after the end of Soviet occupation and today all Estonian towns besides the two biggest, Tallinn and Tartu, are facing population shrinkage. If this trend continues, it is unlikely that the rural regions have a chance to survive.

Although bigger cities and metropolises face a lot more complex problems that might not be as relevant in smaller towns and regions, it is undeniable that all urban environments face similar challenges in terms of public spaces, their safeness, attractiveness and traffic organization. It could even be said that the design of public spaces in smaller towns with decreasing populations is just as important or even more crucial than the planning of public spaces in big cities.

In the Estonian context, it is essential to find solutions that would make life in smaller towns and rural areas desirable and inviting. A good quality public space is something that makes the locals feel proud of their hometown and attracts visitors and investors. It emphasizes the unique qualities of the surroundings and brings out its best features. If the public spaces in smaller settlements are designed with the same level of care and consideration as big cities, they will most likely work as catalysts for having an attractive living and working environment.

The thesis focuses on a small Estonian town – Haapsalu which is one of the towns in Estonia facing a shrinkage problem (graph 1, 2, Statistikaamet). Although shrinkage is not as serious in Haapsalu as it is in northeastern or southern Estonia, it is unlikely that the population of the town would increase rapidly in the future. Therefore, the main focus in administering and planning the city's developments should be on stabilizing the shrinkage and creating an attractive environment for its current residents, young people who have left town temporarily for better career options and businesses who are considering operating in Haapsalu. The thesis focuses on creating attractive public spaces in Haapsalu, analyzes its current lackings and looks for positive aspects which should be highlighted.

5.2 GENERAL INFORMATION & CHARACTERISTICS

Haapsalu is situated in a shallow bay on the western coast of Estonian mainland, about 100 km away from the capital, Tallinn (figure 15). It lies in the intersection of the roads leading to the

towns of Lihula and Pärnu as well as Rohuküla harbor which connects the mainland and the islands of Hiiumaa and Vormsi. The area of the town is 11,09 km². Haapsalu has a long coastline and is mostly known as a resort town with multiple spas, a rehabilitation center, promenade, the medieval castle and lots of greenery. By population, Haapsalu is the 15th of 47 towns in Estonia with 9119 habitants (Haapsalu Linnavalitsus, 2022).

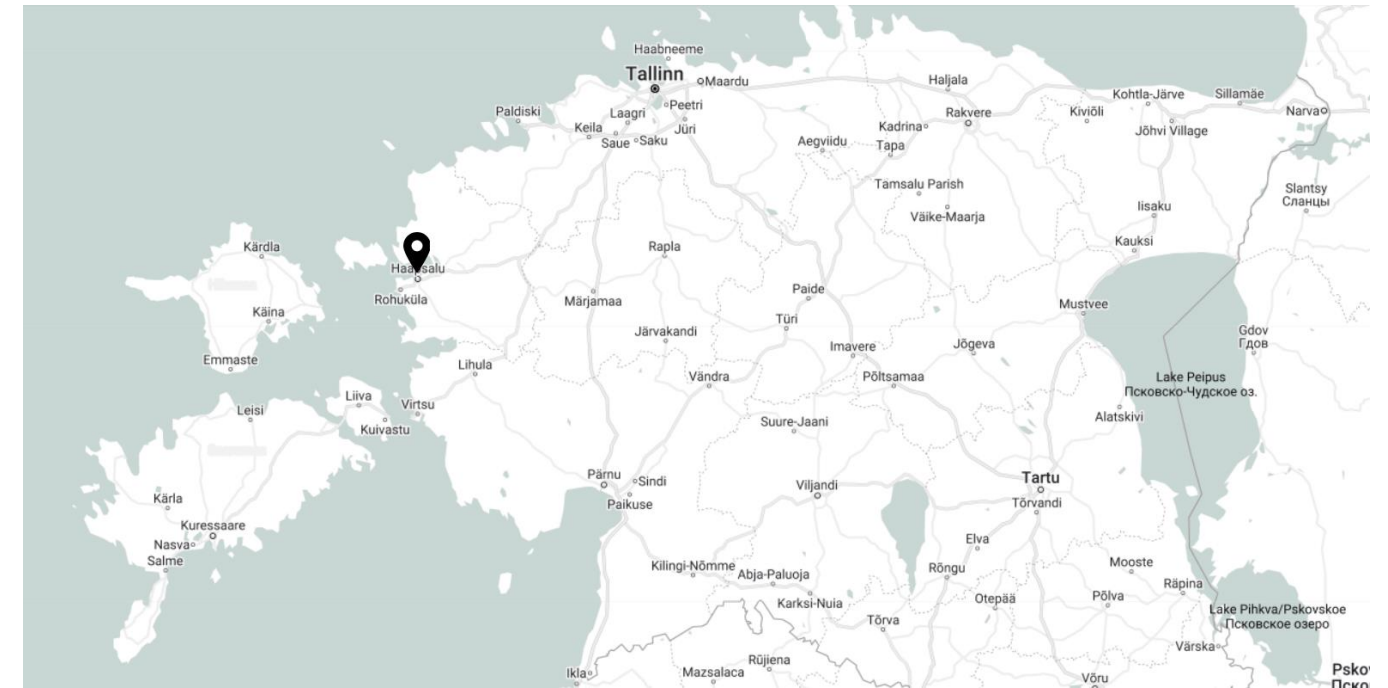
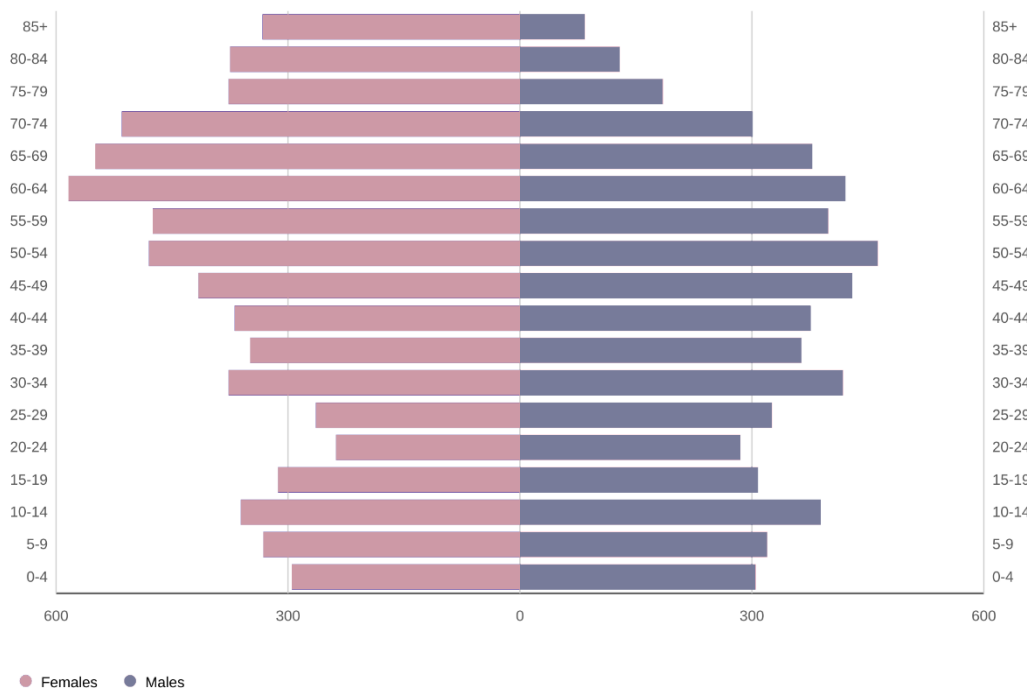
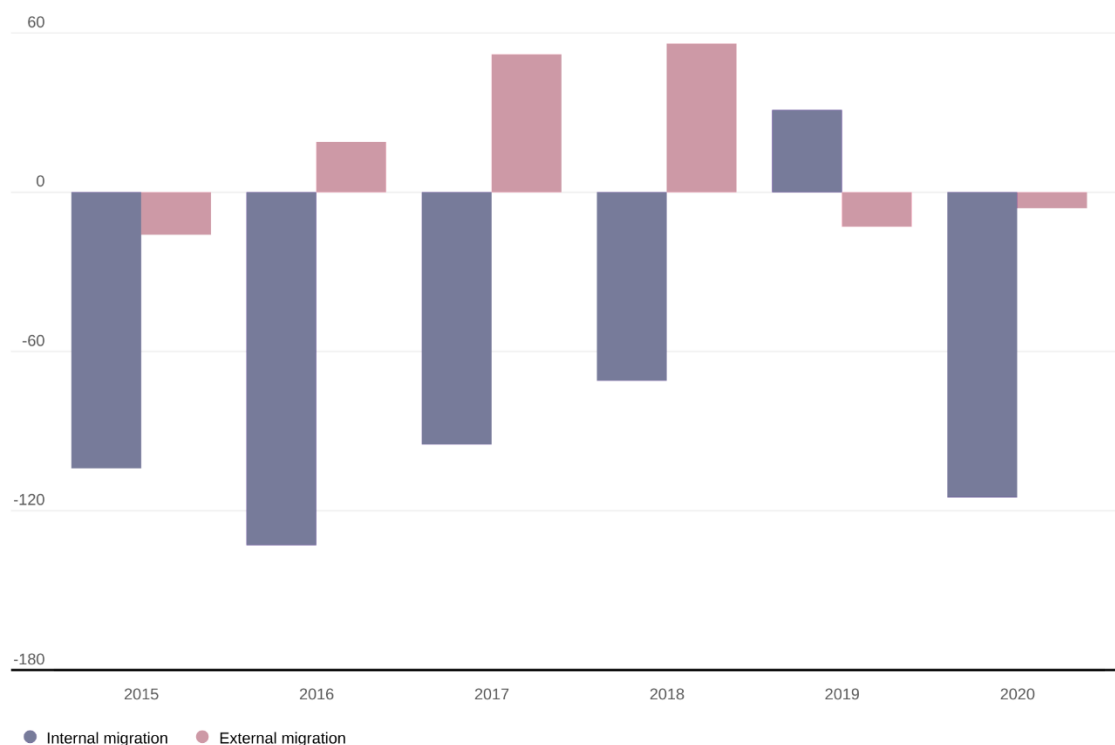


Figure 15. Location of Haapsalu



Graph 1. Haapsalu population distribution by age and sex (Statistikaamet, 2022)



Graph 2. Net migration by type of migration. (Statistikaamet, 2022)

5.3 HISTORY

5.3.1 13th-16th century

The history of the town dates back to the 13th century when the town was founded by the bishopric of Ösel-Wiek. At that time the location of the settlement was by the strait, not in the bay as it is currently since the current Noarootsi peninsula was an island and a navigable waterway ran between Noarootsi and the mainland. It is likely that the location of the future town was initially a small port. (Haapsalu Linnavalitsus, 2021)

The cathedral of the episcopal castle of Haapsalu is the oldest preserved building in the town. The construction of the cathedral is first mentioned in 1279 in the founding document of the town. It is unknown when did the construction of the cathedral and the castle begin precisely, however it is mostly believed to have begun after the year 1263 when the Lithuanians conquered Vana-Pärnu. Some researchers have proposed a theory that the construction of the cathedral began earlier in the 13th century. It is possible that the reinforced stronghold was established to defend and administer the formerly existing settlement. The main castle (castrum minus) is directly mentioned in the sources in 1324. (Haapsalu Linnavalitsus, 2021)

By the late Middle Ages, the episcopal castle had developed into an extensive castle with different functions and historical layers. Since then, the town has developed and grown around the castle. The traces of the initial settlement have been found northeast of the castle, near the current town square (Lossiplats). The fact that the castle would be protecting the settlement from the mainland and closing the main access to the town was most likely considered already in the planning phase of the castle. The area for the future town development was limited to 6,3 hectares since the peninsulas of Krimmi holm and Bürgermeistri holm were also islands at the time. (Haapsalu Linnavalitsus, 2021)

The construction of stone buildings began at the beginning of the 15. century and the town was enclosed with a wall. The town was founded by the sea and the fact that there was formerly a port, played an important role. Although, the exact location of the medieval port is not known precisely. The geometric street grid north of the castle indicates that the settlement of the town was not formed over time but was built consciously. The formation of the medieval street network was influenced by the earlier roads leading to the peninsula. The most important roads led to the heart of the town - the market square. It is likely that the market was located in the same spot as the park next to the current town square – Lossiplats. (Haapsalu Linnavalitsus, 2021)

5.3.2 17th century

Most of the town was destroyed in the Livonian war (1558-1583). According to the chronicles, only three houses survived the Russian attack in 1560. The cellars and basements in the old town are the only structures left from the earliest building heritage besides the sacral and fortification buildings. Most of the residents were killed or fled to Saaremaa or Tallinn. Only the strategically important towns (e.g. Tallinn, Tartu, Pärnu, Kuressaare, Narva) were reconstructed and modernized. The growth of the smaller towns stopped since the towns belonged to the manors and the territorial control of the country went over to the Swedish Empire. The population in Haapsalu was very small in the first half of the 17th century. It is believed that only about 100 people lived in the town in 1627, although by the end of the century the population increased to about 600 people. (Haapsalu Linnavalitsus, 2021)

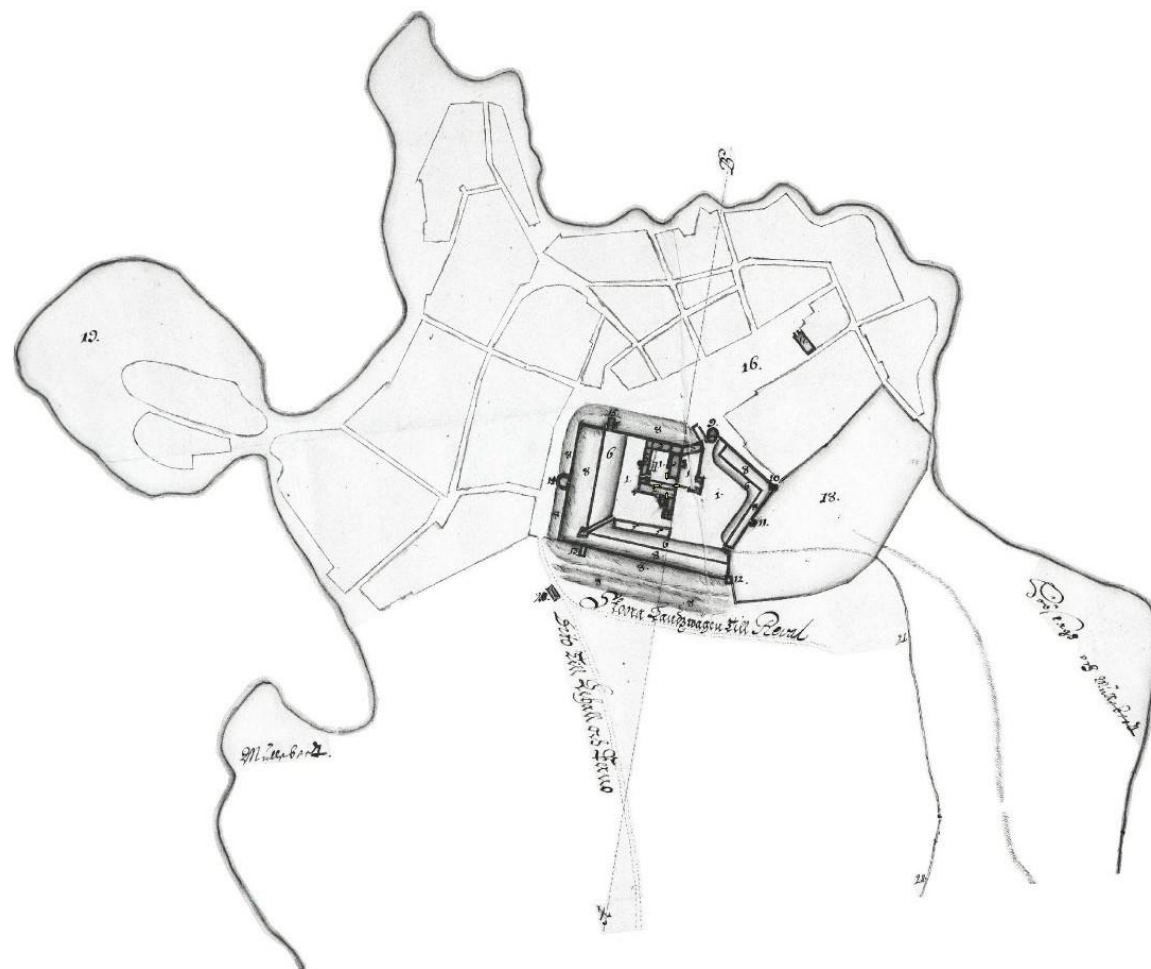


Figure 16. Map of Haapsalu from 1683. Source: eestikaardid.ee/kaardid/linnaplaanid

5.3.3 18th century

In the beginning of the 18th century, the political status changed and Estonia belonged to the Russian empire for the next two decades. Due to its geographical situation, Estonia and Livonia

became an important connection between western Europe and Saint Petersburg and a stable urban settlement was developing. The Great Northern War devastated Estonia more than any other war in history and most of the population died due to several plagues. The development of most small towns was very slow. (Haapsalu Linnavalitsus, 2021)

The restriction established in 1704 to not construct stone buildings had a strong impact on urban developments in the 18th century. The restriction was canceled in 1749 due to many fires. A law was established to build stone buildings in the center and wooden buildings in the peripheral areas of the towns. A new rise of historic towns and extensive planning of new towns began in the last quarter of the 18th century. Under the reign of Catherine the Great, a commission was created that dealt with planning the towns and a law for planning cities and towns was established in 1763. The construction boom did not leave Haapsalu untouched. The wealthy grain and salt merchants supported the construction of public buildings. (Haapsalu Linnavalitsus, 2021)

5.3.4 19th century

The first half of the 19th century was a significant period for Haapsalu. The small town of trading and craftsmanship became a well-known resort in the whole empire. By the year 1850, the town had 952 registered summer guests in addition to the 1630 residents. Since the middle of the century, Haapsalu was a preferred holiday town for the Russian upper class, including the imperial family. Also, Haapsalu and Saint Petersburg had a close relationship due to the established steamship connection between the towns. A town law was established in 1877 in all three of the Baltic governorates, according to which a town council and mayor had to be elected and a town government formed. (Haapsalu Linnavalitsus, 2021)

The second half of the 19th century was a period of economic growth for Haapsalu. In 1861 a new harbor was constructed, and luxurious villas were erected in the town (De la Gardie castle, villa Favorita, villa Wenden and villa Friedheim). Also, rehabilitation establishments were built. Haapsalu grew towards the north peninsulas, the lake "Väike Viik" became an in-town waterbody that was surrounded by walking paths and residential plots with great sea views. (Haapsalu Linnavalitsus, 2021)

The classicism era was withdrawing and new ideas were searched throughout the world. Haapsalu was under a great influence of Swiss historicism with its rich wooden decor and lace of which the greatest example in Haapsalu is the Haapsalu Resort Hall (Kuursaal). The building of the Resort Hall influenced the design of other buildings in the town as well and is an iconic

building of Haapsalu to this day. Detailed wooden elements were fitted on residential and business buildings as well as entertainment buildings – summer lounges, resort buildings etc. (Haapsalu Linnavalitsus, 2021)



Figure 17. Map of Haapsalu from 1850. Source: eestikaardid.ee/kaardid/linnaplaanid

The great attraction – the town promenade was also built in the 19th century. The Grand Promenade extended from the Russian orthodox church to villa Friedheim. The smaller section towards the north of the town was called Chocolate Promenade. The town's greenery and

parks were thoroughly reconstructed during the 19th century. The inside of the town castle, the area in front of the town hall and the green area outside of the castle (Krahviaed) were designed as town parks and created pleasant resting areas for the residents. (Haapsalu Linnavalitsus, 2021)

5.3.5 20th century

The Keila-Haapsalu railway completed in 1905 had indisputably the biggest impact on the town at the beginning of the century. The railway station building was completed a few years later, in 1907 and this great example of historicism era architecture has remained one of the main attractions of the town throughout time. The development of the town continued actively until The First World War. The land of Uuemõisa manor was divided into smaller plots and sold to the previous farmers who were looking for residence in town. The largest real estate developments were on Posti, Uus, Endla and Võnnu streets which formed a comprehensive ensemble true to the era. (Haapsalu Linnavalitsus, 2021)

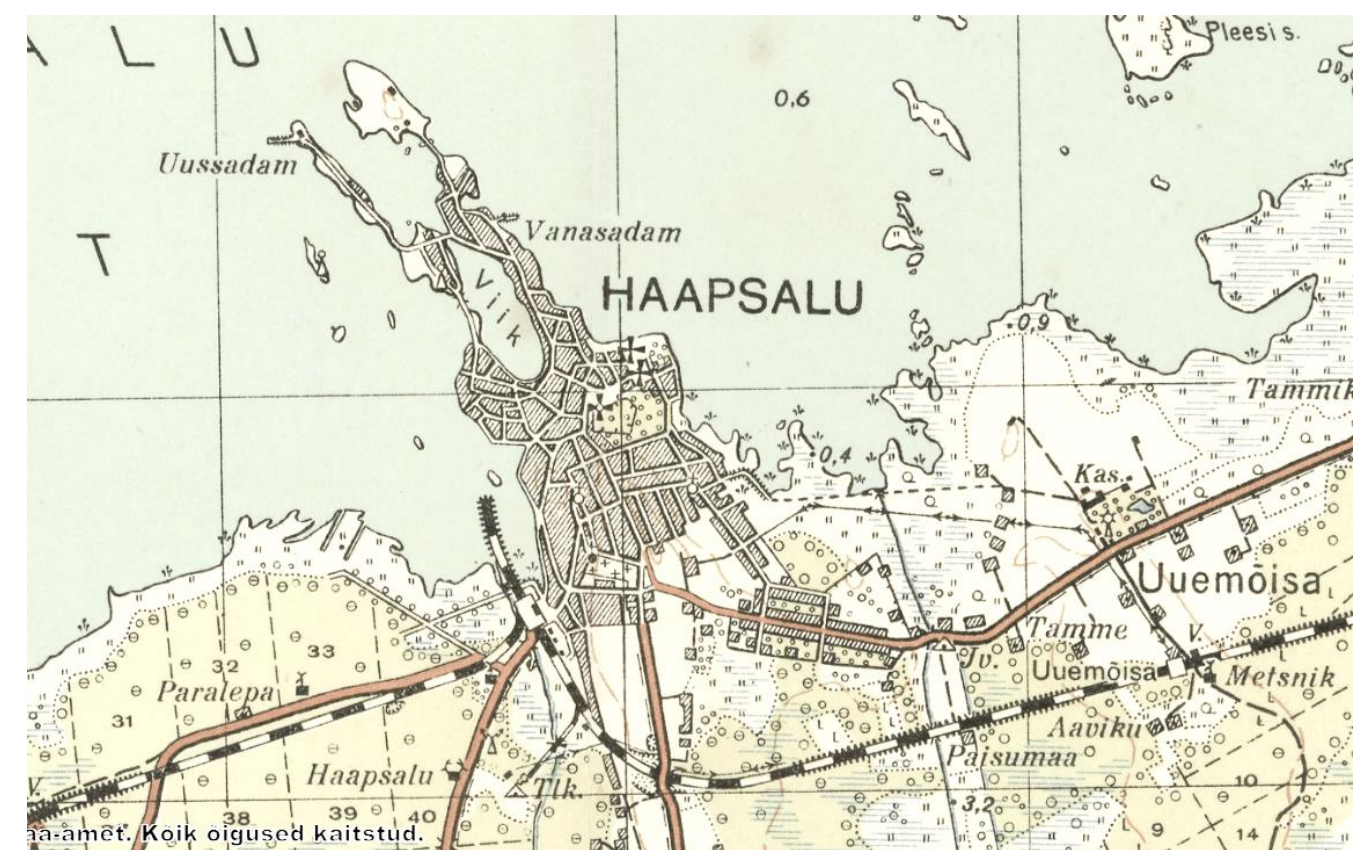


Figure 18. Map of Haapsalu from 1935. Source: eestikaardid.ee/kaardid/linnaplaanid

After the Second World War, Estonia was under the Soviet regime. The land belonged to the state which led to a wave of new and radical master plan solutions. The new master plans designed in the 1950s intended to renew the old parts of the towns and cities. However, the

execution of the plans was unrealistic due to the utopian designs and the poor state of the country's economics. The war damage to Haapsalu was not extensive. Still, new general plans were designed for Haapsalu as well. The first general plan in 1950 proposed to change the historic layout of the town and build new traffic breakthroughs (figure 19, Haapsalu Linnavalitsus). The one-story buildings in the heart of the old town were intended to be replaced by higher buildings. The 1966 general plan focused on planning new residential areas in town and building an administrative center south from the castle which saved the old town from large-scale reconstructions. In 1950, most of the street names were changed since a new era had begun and old ones needed to be forgotten. (Haapsalu Linnavalitsus, 2021)

Figure 19. Proposal for the traffic artery through the old town in the general plan of Haapsalu from 1975

5.4 CURRENT SITUATION & FUTURE DEVELOPMENTS



Figure 20. Haapsalu railway station

The pedestrian and cycling lanes in the town are often filled with obstacles such as too high curbstones, broken and uneven pavement, traffic signs etc. In some sections, the sidewalks are too narrow, nonexistent or interrupted at unlogical places. The priority is too often given to cars and the well-being of people in the urban space forgotten. Since parking is not regulated or taxed in the town, the urban space is often overloaded with cars during the high season and there are serious congestion and parking problems. The town administration is planning to build new parking lots on the edge of the old town that should relieve the parking pressure inside the old town. In the future, there is also a plan to implement parking taxes and limit the parking duration during summer.



Figure 21, 22. Examples of unsatisfactory parking situations

Today, one of the most important streets in town, Posti street, is being reconstructed. Posti street connects the old town and the entrance of the town and in the future, it will be a pleasant urban street with cycling lanes, benches for resting, bicycle holders and narrower car lanes.

By 2030, Haapsalu aims to be an authentic and sustainable town with a developed social and technical infrastructure, preserved heritage conservation area, diverse nature and accessible public services (Haapsalu Linnavalitsus, 2021). The town is currently preparing a new master plan since after the administrative reform the town and the surrounding rural areas of the former Ridala municipality formed a joined municipality. The new master plan includes many ambitious developments regarding transportation such as the town bypass route, direct connection to the Noarootsi peninsula (figure 23, Haapsalu Linnavalitsus) as well as the reconstruction of the railway up until Rohuküla harbor and a comprehensive cycling network (figure 24, Haapsalu Linnavalitsus).

The draft of the master plan provides an overview of the biggest developments in the town as well, such as densifying the town in the Pottisepea area and building a new walking and cycling path along the coast from Pottisepea to Uuemõisa, reconstructing the old town central square and constructing a new building to the empty plot beside it. The master plan also addresses the redevelopment of the former industrial peninsulas of Krimmi holm and Bürgermeistri holm to publicly accessible residential and leisure areas as well as a modern harbor on Bürgermeistri holm. In addition, the master plan proposes improvements for the small suburb of Paralepa and the industrial area of Uuemõisa. The master plan also depicts the towns most important nodes (figure 25, Haapsalu Linnavalitsus).

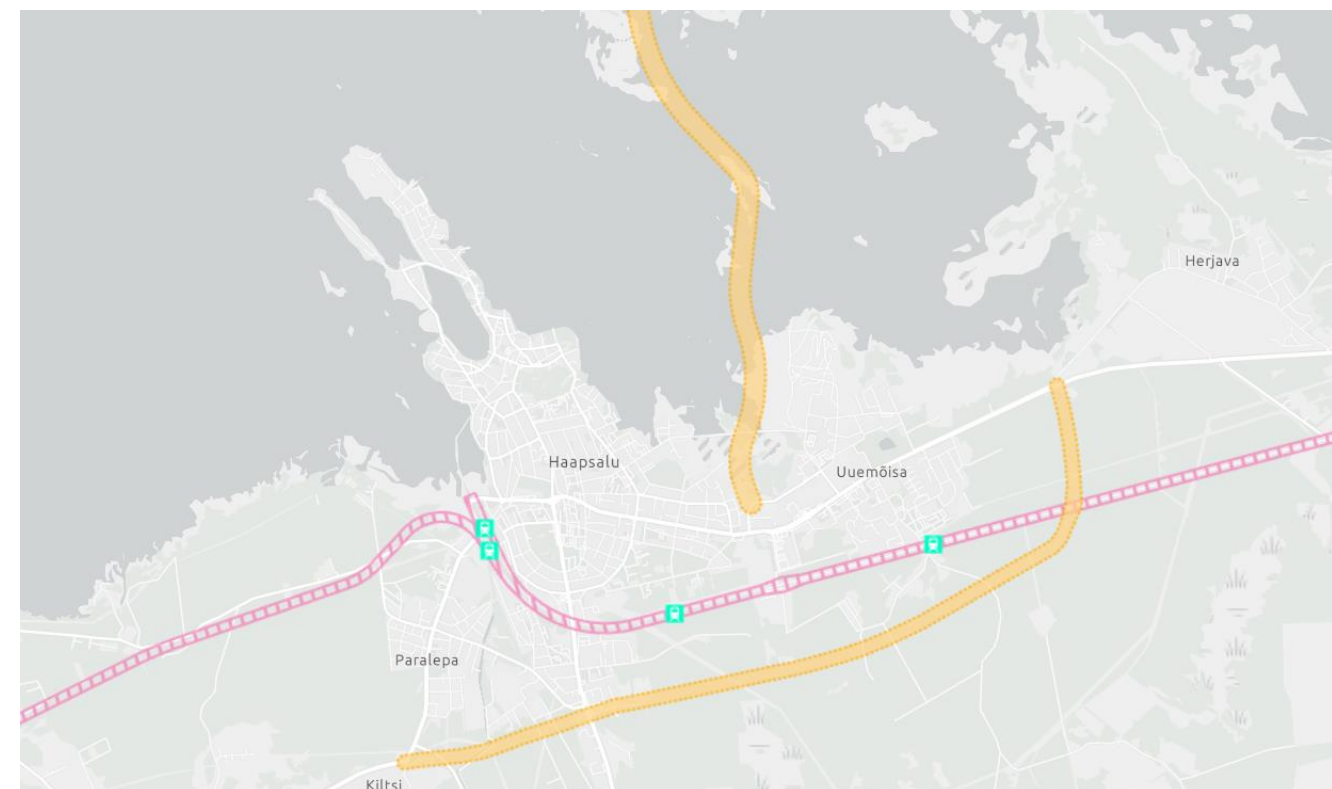


Figure 23. Transportation. The town bypass and connection to the Noarootsi peninsula are marked with orange, the prospective railway route is marked with pink

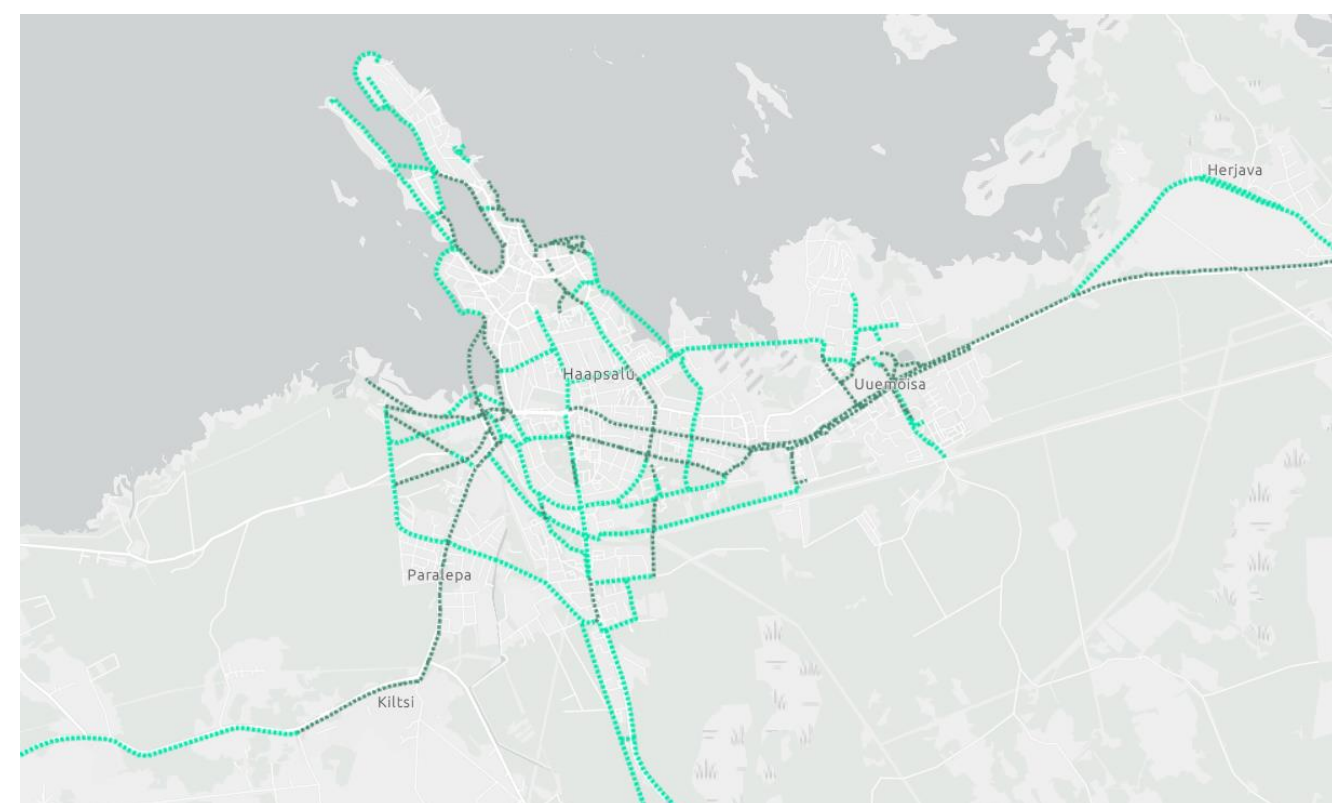


Figure 24. Walking and cycling infrastructure. Existing routes in dark green, perspective routes in light green (Haapsalu Linnavalitsus)



Figure 25. The most important nodes (red) and greyfield areas of the town according to the master plan draft. The nodes represent the old town square, mall and sports center

6 SURVEY

6.1 INTRODUCTION, TOOLS AND METHODS

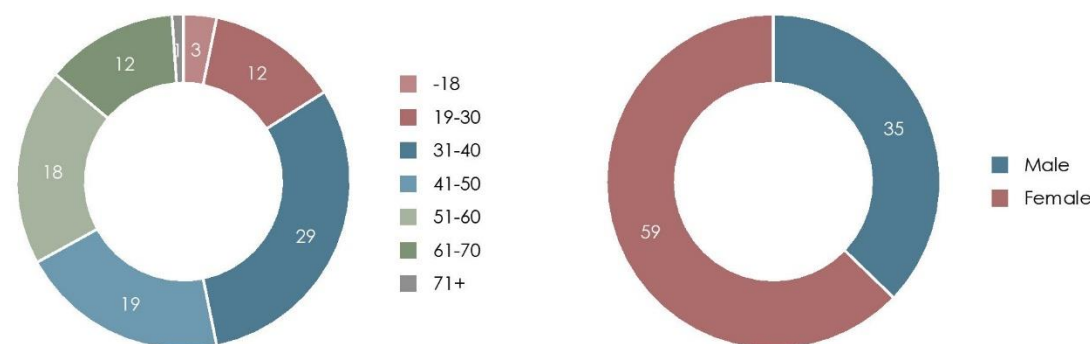
Currently, the world is struggling to find solutions to fight global warming. Carbon emissions are produced simultaneously by different sectors of the economy – transportation, building, energy production and use, agriculture, water and waste management. Therefore, the European Union has taken a direction to become climate neutral by 2050. Many cities and regions have already worked out their goals and strategies to achieve climate neutrality and contribute to reducing carbon emissions. Although great changes can be achieved by determined political decision-making, every person has a role to play and can help along by evaluating their consumption habits. And whereas the role of each individual is important, the environment they are living in has a great influence on habits. Here, spatial planning has a significant part.

To understand which public spaces in Haapsalu are lacking urban quality, a survey was conducted among the residents of Haapsalu. The purpose of the survey was to get an overview of how aware are people of the climate targets, what is their consumption behavior, whether they are ready to adapt to changes in public space and what are their needs and suggestions. The survey was carried out in the Maptionnaire community engagement platform that enables to ask map-based questions from the respondents. The response period was 25.03.2022-16.04.2022. Altogether, the survey collected responses from 94 people.

6.2 RESULTS

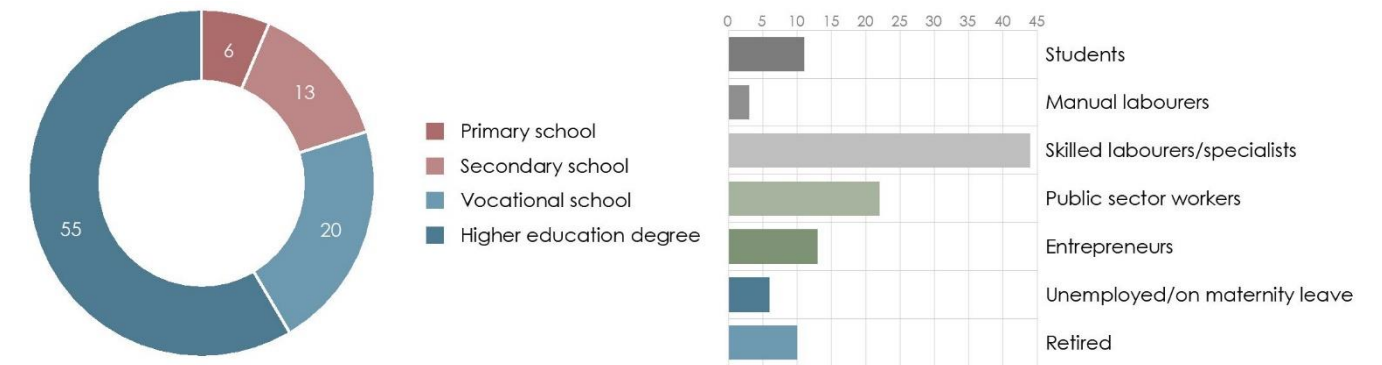
6.2.1 Respondent profile

The respondents were rather equally divided by age groups. The survey collected the least responses from the youngest (18 or under) and eldest (71 or more) age groups (graph 3). One third of the respondents were male (35) and two thirds female (59) (graph 4).



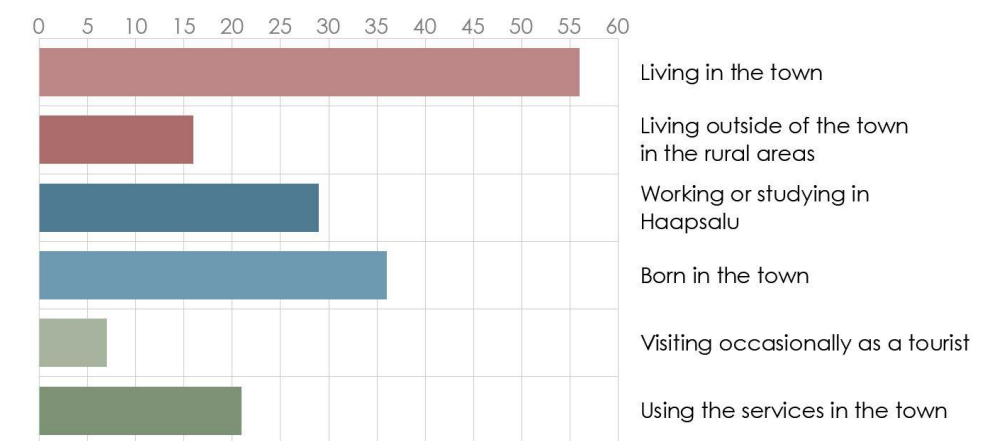
Graph 3, 4. Respondents' age and sex

The majority of the respondents had received a higher education degree (55), 20 respondents had graduated from a vocational school, 13 from a secondary school and 6 respondents from a primary school (graph 5). 44 respondents were occupied as skilled laborers/specialists, 22 as public sector workers and 13 as entrepreneurs. Others marked themselves as students, manual laborers, in retirement or unemployed/on maternity leave (graph 6).



Graph 5, 6. Education & occupation

In the first part of the survey, the respondents were also asked about their connection to Haapsalu. 56 said they were living in Haapsalu town and 16 lived outside of the town in the rural areas. 29 said they work or study in Haapsalu, 36 said they were from Haapsalu, 7 said they visit the town as a tourist or drive through the town occasionally and 21 said they use the services in the town (graph 7).

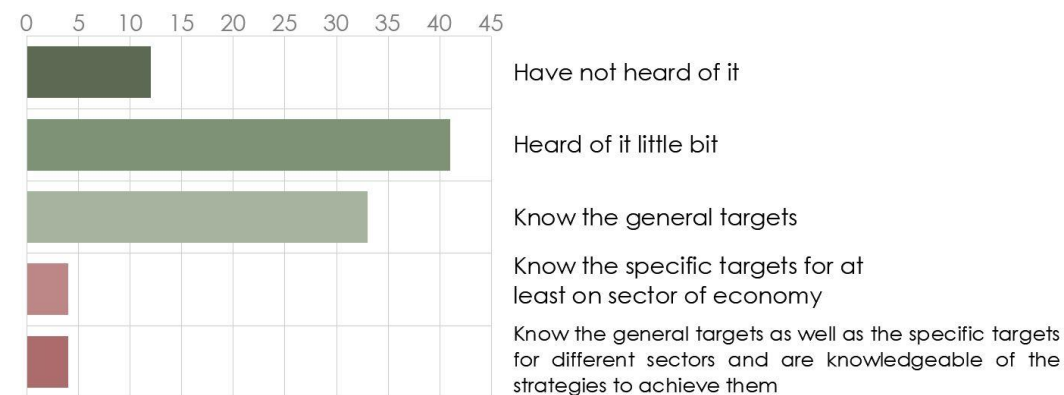


Graph 7. Respondents' connection to Haapsalu

6.2.2 Climate

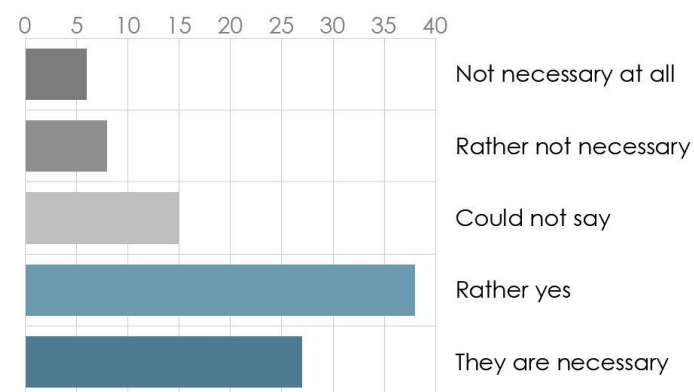
The respondents were asked about their awareness of the climate targets set by the European Union (European Green Deal, 2030/2050 climate targets etc). Although 12 respondents said they did not know anything at all, 41 said they had heard of it a little bit and 33 said they knew

the general targets. 4 people said they knew the specific targets for at least one sector of the economy (energetics/buildings/industry/transport) and 4 said they knew the general targets as well as the specific targets for different sectors and are knowledgeable of the strategies to achieve them (graph 8).



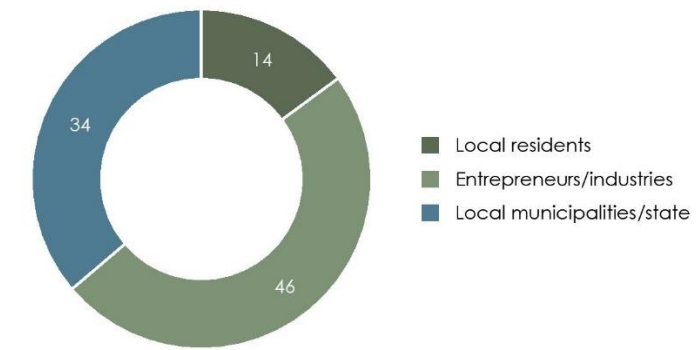
Graph 8. Climate awareness

Secondly, the respondents were asked whether they think it is important to have climate targets and develop strategies to achieve them. 38 said rather yes, 27 were sure they were necessary and 15 could not say. 8 people thought that the climate targets are rather not necessary and 6 said they are not necessary at all (graph 9).



Graph 9. Opinions on the necessity of climate targets and strategies

The respondents were also asked about who has the biggest role in achieving climate neutrality. About half (46) of the respondents said they believe the entrepreneurs/industries have the greatest role, 34 thought the responsibility lies on the shoulders of the local municipalities and 14 said that the local residents have the biggest role (graph 10).



Graph 10. Opinions on who has the biggest role in achieving climate neutrality

The questionnaire provided a free text box after this question which enabled the respondents to elaborate their answers. People who thought that the industries and manufacturers play the biggest role explained that since industries are the greatest polluters, energy consumers and have an influence on peoples' consumption habits, innovating industries and making them more environmentally friendly has the greatest potential to have an impact on achieving climate neutrality. Others emphasized that the local municipality/state has the greatest role in guiding the development of local life and setting examples. Several people marked that the contribution of each individual/resident is important and the change starts from the bottom. The importance of the end consumer's choices has an influence on industries and local municipalities. Although the question asked to select which party has the biggest role, some respondents underlined that each party has a role to play and that the state, local municipalities, entrepreneurs and residents need to put in common effort. It is not possible to initiate change by the local municipalities or state when the people do not understand it and vice versa. Here, the communication between different parties plays an important role.

To understand which climate actions are most important to take on, the respondents were asked to prioritize a set of actions that they think would be most beneficial for achieving climate neutrality. The results were as follows:

1. Using renewable energy
2. & 3. Developing pedestrian and cycling network / innovating industries
4. Planting new trees and greenery
5. Renovating old buildings and building energy efficiently
6. Using local and renewable building materials
7. Developing climate strategy and communicating targets

8. Parking restrictions/taxes

9. Densifying the town center

The results of this question show that using renewable energy, developing pedestrian and cycling networks, innovating industries and planting new trees and greenery would have the best public acceptance regarding climate actions. Whereas parking restrictions or taxes and densifying the town center would be most unpreferable by the public, it is known that these actions, especially the parking restrictions would provide quick results for a more pleasant and lively urban environment.

Here the respondents emphasized that having a strategy and targets is important but acknowledging the targets and communicating them is just as essential. Communicating the targets to the locals and raising a new generation with an environmentally conscious mindset should be the main focal point. Another thought expressed that regulating parking and cars in the town center will help to improve the air quality as well as the quality of living but that requires good planning, infrastructure network and explanatory work. The key question when removing cars from the town will be providing efficient infrastructure for tourists and the people who come from further away and park at the town edge. The parking regulations in the old town should support reducing car traffic in the streets.

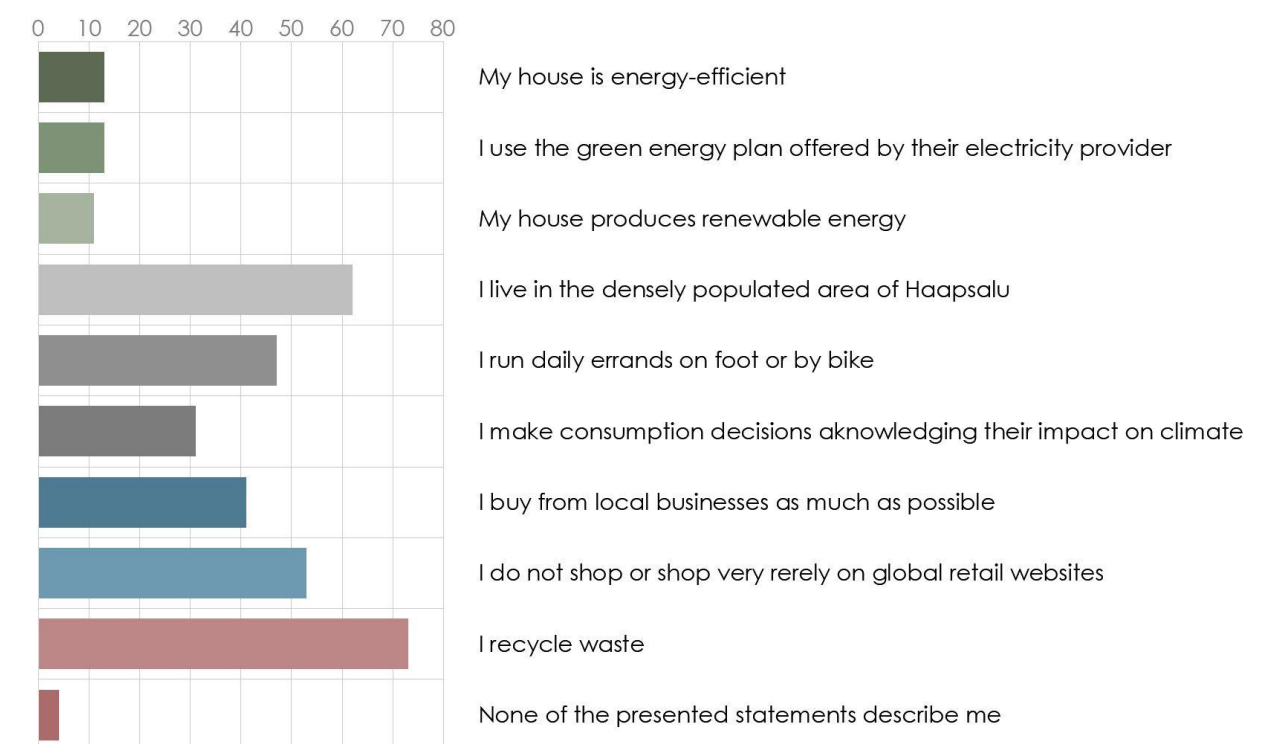
When asked, which obstacles would be the most relevant in the process of achieving climate neutrality, the people of Haapsalu responded as follows:

1. Readiness of local municipalities
2. Lack of funding/finances
3. Changing peoples' habits
4. Readiness of entrepreneurs
5. Time-consuming changes of legislation
6. Implementation of strategies

Some respondents accentuated that achieving climate neutrality is not realistic since producing solar panels, windmills, electric cars etc is wasting resources. Many pointed out that the change in peoples' habits and leading a sustainable lifestyle would be much more beneficial. Some mentioned that the building of new solar or wind farms can get stuck in bureaucracy which is why the developers often give up the plan.

6.2.3 Consumption habits

To get a glimpse of the consumption habits of people in Haapsalu, firstly the respondents were asked to mark which statements were true to them. 13 said that their house is energy-efficient, 13 use the green energy plan offered by their electricity provider, 11 said their building produces renewable energy (geothermal heating/solar panels etc), 62 said they live in the densely populated area of Haapsalu, 47 run their daily errands on foot or by bike. 31 said they make their consumption decisions acknowledging their impact on climate, 41 said they buy from local businesses as much as possible, 53 said they do not shop or shop very rarely on global retail websites, 73 recycle their waste and 4 people said that none of the presented statements described them (graph 11).

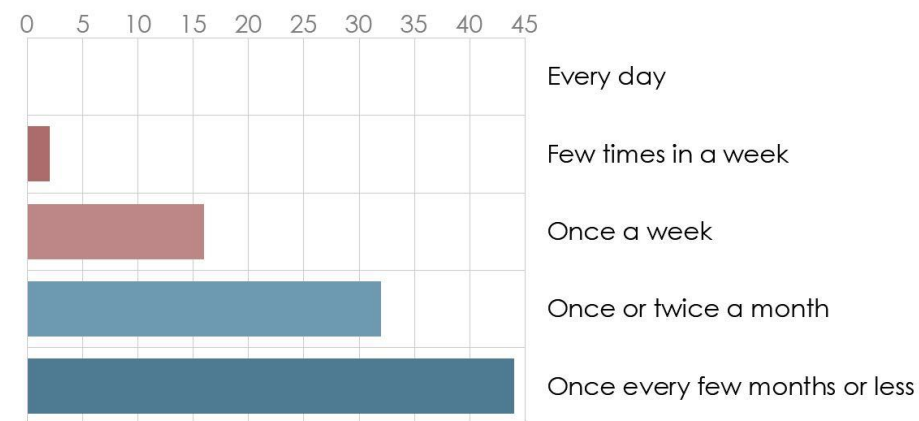


Graph 11. Consumption habits

The respondents were also asked whether there was anything they would like to do from the previous list but could not because of the lack of resources, knowledge or an insufficiently working system. A few trends stood out. 13 people said that they would like to live in an energy-efficient building, but they do not have enough resources to renovate their building. For some, even with the help of state-provided subsidies, the renovation remains too expensive. Few respondents said that they would like to use a bicycle for their everyday errands but the infrastructure is insufficient. Some were not happy with the public transportation system because the buses do not go frequently enough, the timetable is not fitted with their needs or

the buses are overcrowded. Some mentioned a problem with recycling and not having a convenient possibility to sort their waste near home. As for buying from local businesses, it was pointed out that it is too expensive, and the selection of products is not satisfactory.

Residents' transportation habits have a great impact on the urban environment and public spaces, therefore it is important to know which transportation mode they prefer and what would make them use personal cars less. The railway connection between Haapsalu and Tallinn will presumably be reconstructed in the future, therefore the respondents were asked how often they travel between the two towns and whether they would prefer traveling the route by train. 44 people said they do not go to Tallinn very often, they do it once every few months or less, 32 people travel the route once or twice a month, 16 once a week, 2 said they go to Tallinn a few times a week (graph 12).



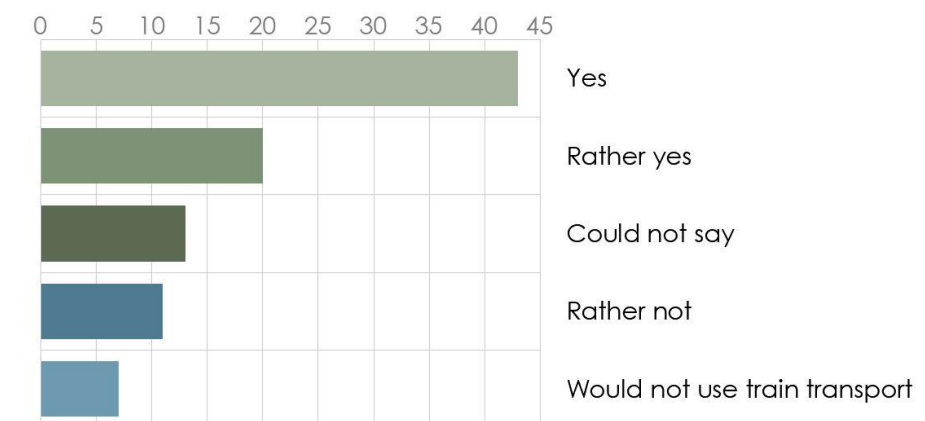
Graph 12. Frequency of Haapsalu-Tallinn travels

When asked, would people use the train to travel between Haapsalu and Tallinn assuming the timetable and ticket prices are acceptable, 43 people said yes. 20 said rather yes, 13 could not say, 11 said rather not and 7 said they would not use train transport (graph 13). Some emphasized that they would only use the train when the travel time would be under an hour. For perspective, the drive from Haapsalu to Tallinn usually takes about one hour and twenty minutes, by bus the traveling time is one hour and forty-five minutes. The speed limit on the road is 90 km/h and the planned rail connection speed will be a maximum of 160 km/h, therefore taking an express train would most likely save travel time.

In favor of the train, people marked the comfort, speed, safeness and less pollution in the environment. The possibility to work while traveling by train and take a bike with you was mentioned as a plus. In general, it could be said that the people of Haapsalu are impatiently

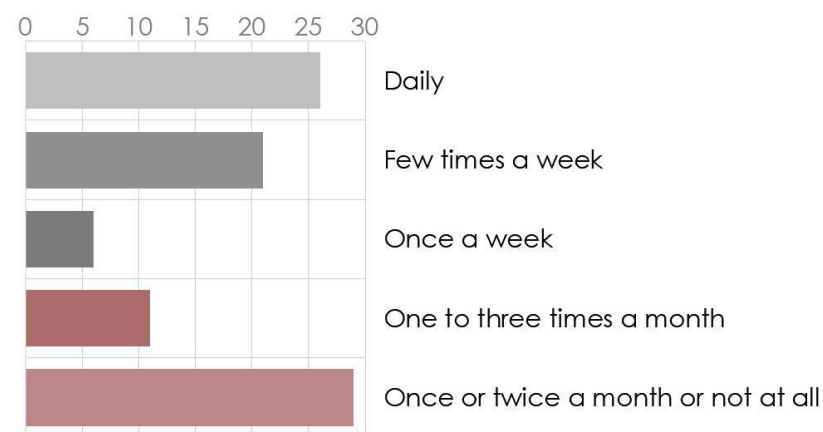
waiting for the train, and some are even considering moving back to the town when the railway is reconstructed.

People who were rather neutral about the train connection mentioned that they would probably not be using it since their destinations in Tallinn would be far away from the railway stations, they enjoy driving a car, going by bus or they cannot be dependent on train timetables. When traveling with family or a larger group, train travel would most likely be more expensive and troublesome than taking a car. Some were worried about the deforestation that goes with reconstruction and the dangers regarding wildlife.



Graph 13. Willingness to use the train on Haapsalu-Tallinn travels

According to the mobility study presented in the Haapsalu master plan for 2030+, the accessible distance for using services near home is three kilometers. Three kilometers is the distance that could be covered by foot in about 36 minutes, by bike in 9 minutes, by public transport in 16 minutes and by car in 3 minutes. To estimate how many people travel this distance by car, the respondents were asked how often they take trips shorter than three kilometers by car. 26 said they do it every day, 21 do it a few times in a week, 6 said once a week and 11 people said they drive distances shorter than three kilometers one to three times a month. 29 people responded that they use a personal car for such distances once or twice per month or not at all (graph 14).



Graph 14. Frequency of use of personal cars for distances shorter than three kilometers

Lastly, to indicate what would make walking, biking or public transport use preferable/better for the residents, the respondents were asked to rank the actions and variables which are proven to be effective. The peoples' opinion was as follows:

1. Smooth and well-connected pedestrian/cycling paths
2. Better public transport system
3. Comfortable bicycle storing possibilities
4. Park & ride system
5. Rental bike network
6. Increased fuel price (over 2,5 €/l)
7. Parking fee in the town center

Here, yet again, the parking fee in the town center is the most unpopular action, although this would most likely be a very effective method to improve the quality of public spaces. According to the respondents, the most preferred actions would be to have a smooth and well-connected pedestrian and cycling networks, better public transport and comfortable bicycle storage possibilities.

People said that improving the bicycle and pedestrian network would be the most important action because the public space currently gives priority to cars. There are only a few bicycle roads and even those few tend to end in unlogical locations. It was also mentioned that the park & ride system, rental bike system and public transport are connected and when one of those has shortcomings, people would decide in favor of a car. For some, it is not possible to not use a car because they are living further away or need to transport a disabled person. Therefore parking taxes and increased fuel prices would not be favorable. One respondent

said they would consider giving up their car when there would be a car rental service provided or an expensive taxi service.

6.2.4 Map questions, public space

The last part of the survey included map-based questions. Although asking general questions from people can give a good overall impression on public spaces of the town and peoples' thoughts on them, the Maptionnaire tool chosen to conduct the survey allows the respondent to place an exact pin, line or a surface in the area that they would like to express their opinions on. The result will be a map with multiple ideas from the respondents. The map-based questions were not a compulsory element of the survey, therefore the people taking the survey could skip them or only express their thoughts on the aspects they thought necessary.

The first map-based question asked people to pin on the map the places they like the most in Haapsalu. The purpose of the question was to find out which are their favorite spots for spending free time, meeting friends or playing with children. 202 pins were placed on the map (figure 26). Although people have favorite places all over the town, a few trends stood out – the episcopal castle (figure 27) and playground inside the castle wall, the promenade (figure 28), the in-town lake Väike Viik and the trail along the western coast of the town (Õhtu kallas, direct translation – Evening Shore) are the most popular places among the residents of Haapsalu. Most described these places as locations with great views and greenery. People perceived them as safe, relaxed and characterized as attractive and calm. For sports and recreation, the free-access stadium and Paralepa stadium were mentioned several times.

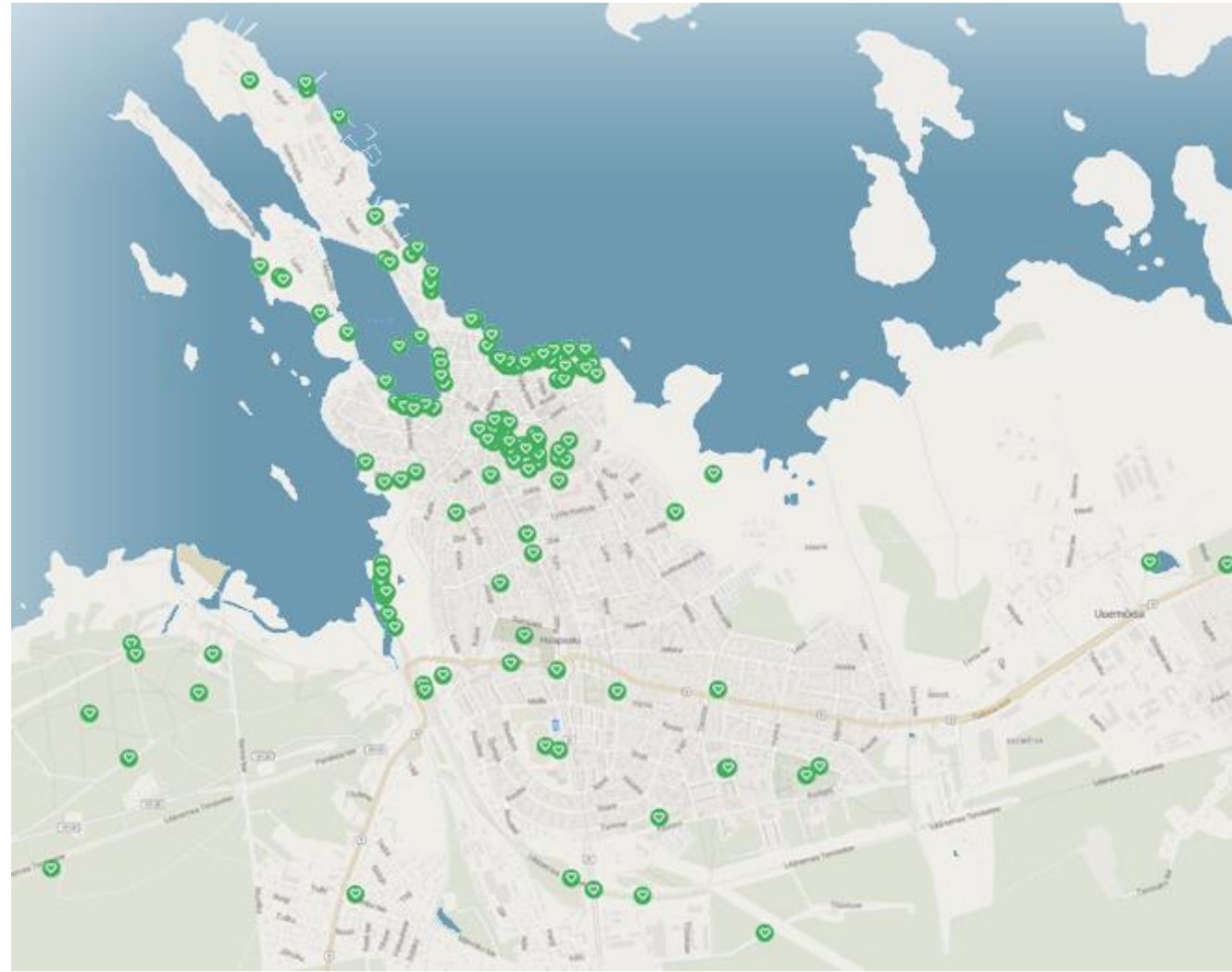


Figure 26. Most favored spots in Haapsalu



Figure 27, 28. The episcopal castle and promenade

Next, the respondents were asked to place on the map the places they do not like in the public space and places they feel something could be improved. The focus of this question was to understand which spots in the town the people feel unsafe, uncomfortable or inaccessible. Here people also pointed out different places over the town. As for places they did not like, the marked pins appeared to be clustering in the town's main intersection point near the mall (figure 29), the old town central square – Lossiplats (figure 30), the peninsula of Krimmi holm and the Kastani apartment building area (figure 31).

The intersection area was described as heavy traffic, overcrowded and an anti-pedestrian area with lots of noise. One respondent even used the phrasing “urban hell”. The old town square is currently used as a parking lot. The square was said to have too narrow streets with sidewalks in a bad condition. It was said that walking there with children, with a stroller or wheelchair is impossible, especially in the winter. Many expressed that the Lossiplats square should have more benches and trash bins and in general be a car-free zone for people, not cars. The main street leading to Lossiplats should be a pedestrian-only street in the summer. The Krimmi holm peninsula was unfavoured because it is not accessible enough, appearing ugly and disorganized. The respondents felt the Kastani apartment building area was unsafe because of the car-centered environment, unwelcome/suspicious groups of people and the bad state of the soviet-time apartment buildings. In general, the overall dissatisfaction with certain intersections and the state of sidewalks throughout the town stood out.



Figure 29, 30. Haapsalu mall and old town square Lossiplats

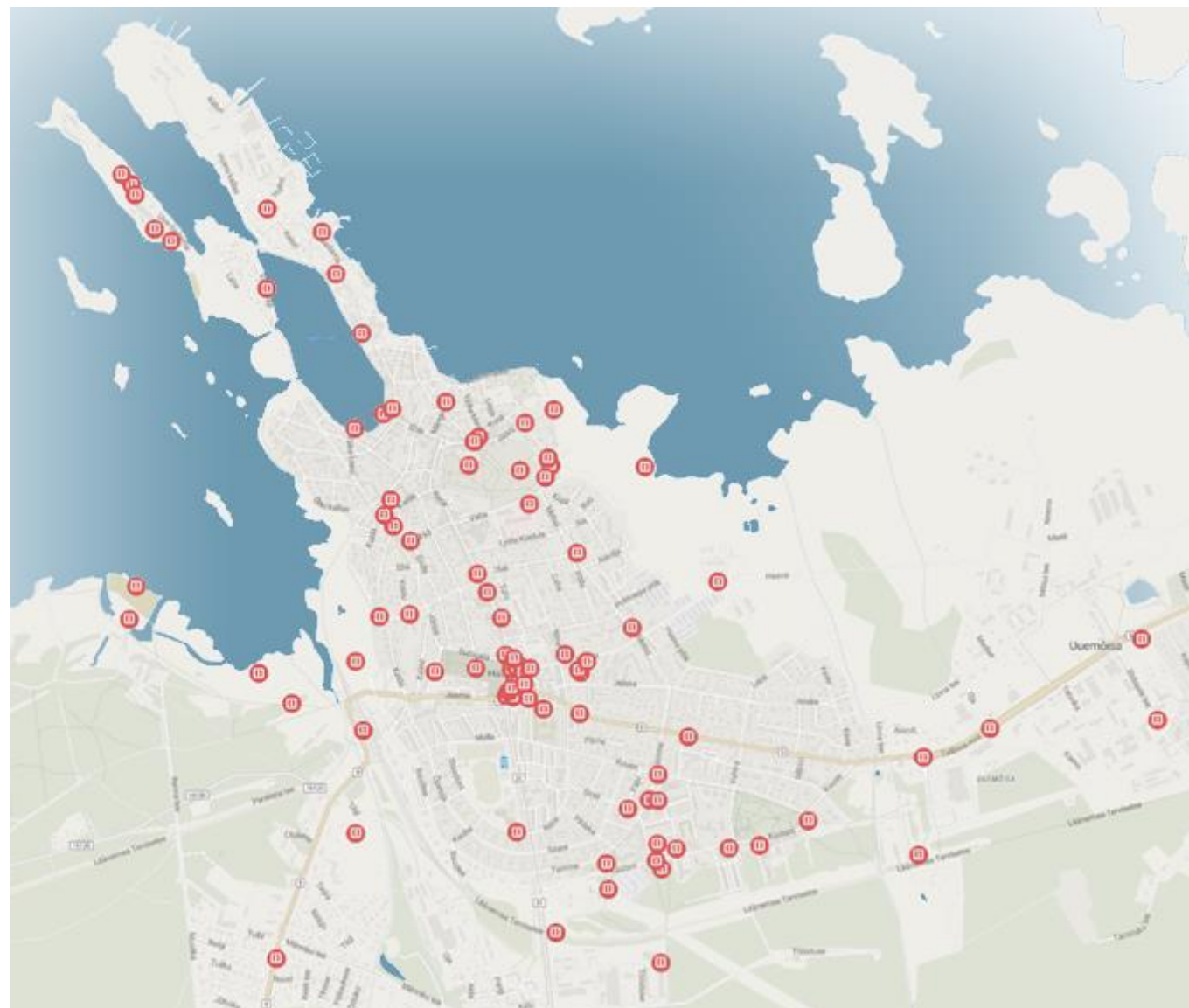


Figure 31. Places people are not satisfied with in the town

As for the suggestions people had regarding the public spaces, even more proposals and point clusters in specific areas stood out in addition to the ones mentioned before (figure 32). For example, the railway station area, the town's beaches and the northern peninsulas were locations with several improvement proposals. It was suggested that the railway station area should have some kind of attraction, a cafeteria, park or playground because currently it is too car-oriented and not representable enough. People also felt the need to have a contemporary bus pavilion in the area and overall, a new solution for the square in front of the station building. The respondents suggested that the town's beaches should have more attractions, cafes, playgrounds, sports grounds, benches and entertainment/recreation areas. Many mentioned the resort town does not have a well-operating beach with necessary services. The town's peninsulas were seen as areas with great development potential. There

could be welcoming parks, summer cafes and picnic spots. Some said that the promenade should continue towards the eastern peninsula, Bürgermeistri holm and the peninsulas should be more accessible and attractive. The need for more trees providing shade, greenery, benches and playgrounds in the town was emerging throughout the majority of the proposals. Many emphasized the need to have a more considerate and comprehensive environment and better connectivity of the existing walking and cycling network.

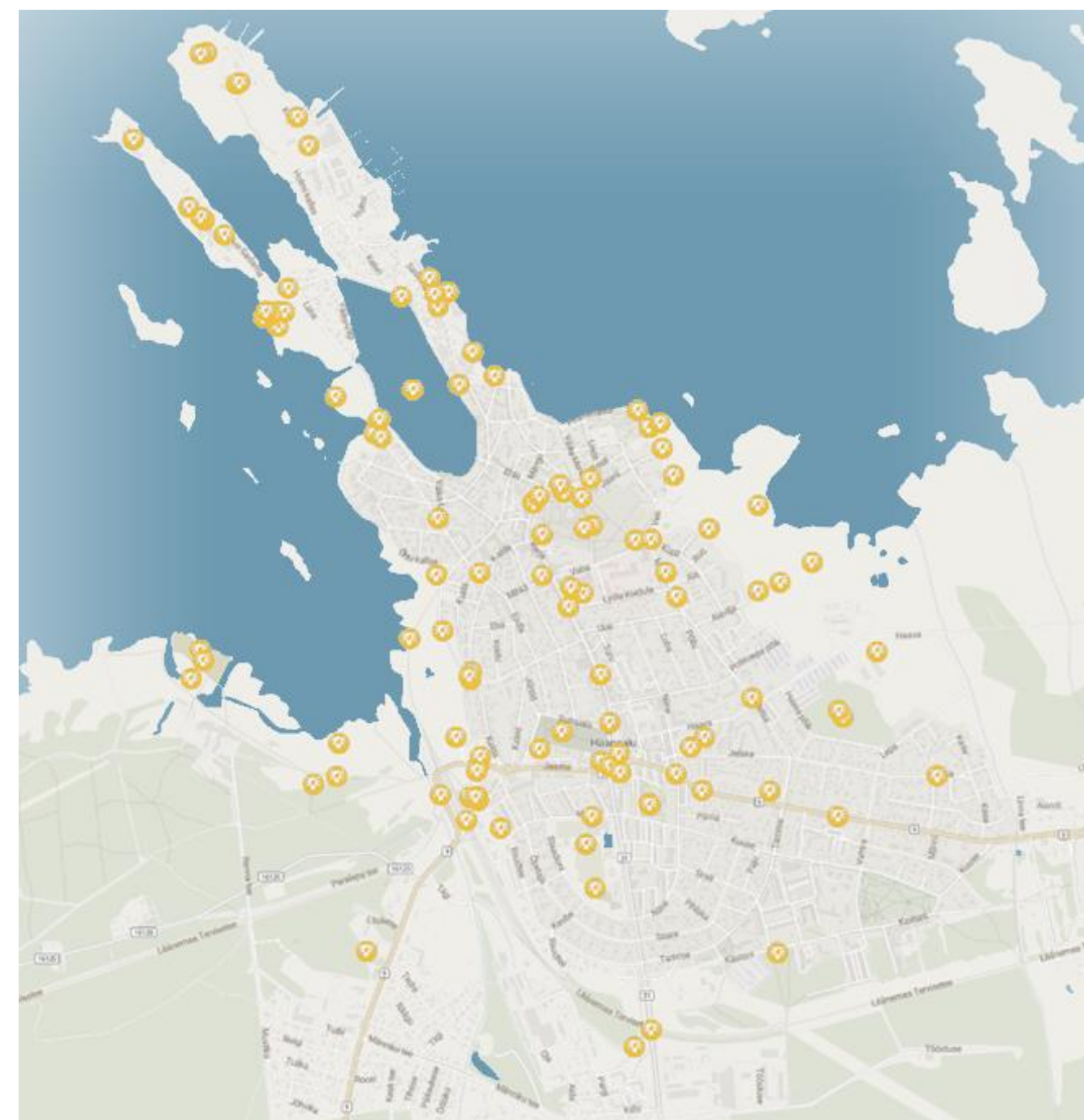


Figure 32. Locations of urban space improvement proposals

To find out how people move around the town, the respondents were asked to draw their everyday walking/cycling routes as well as their recreational/exercising routes on the map (figure 33, 34).



Figure 33. Everyday walking routes



Figure 34. Recreational routes

As seen from the map on the left, the everyday walking routes for going to work or school are very concentrated near the biggest intersection of the town with Posti street acting as a spine. These results accentuate the importance of planning smart and functional public spaces in this area. The recreational routes tend to differ and run more along the scenic coasts of the town, promenade and around the lake. People also like to spend time in the Paralepa forest and move along the wide sidewalks of Tallinn Road and former railway tracks.

In addition, people were also asked to draw the routes they do not like in the town and where they think the pedestrian/cycling network should be improved (figure 35, 36). As depicted earlier, Posti street and the main intersection are one of the busiest areas in town, still people find these places uncomfortable with lots of noise and cars. It was said that there are too narrow sidewalks, not enough benches and it is often very crowded, which is why people tend to look for alternative routes. The Tallinn Road was said to be uncomfortable for cyclists since they need to stop at every intersection. As for other streets and roads, Metsa, Kalda, Lihula, Männiku and Kiltsi were mentioned as either too narrow, uneven or missing sidewalks/cycling paths. The Haapsalu – Parila connection south of the town was also mentioned several times.



Figure 35. Routes people find uncomfortable in the town



Figure 36. Routes where people think walking/cycling paths could be improved

The last part of the questionnaire asked the respondents to mark areas on the map that they think should be redeveloped in the future (figure 37). The results show that people see great potential in the town's peninsulas, Krimmi holm and Bürgermeistri holm, Põlissepa area and the former industrial area east of the railway station. The main intersection area, old town square and railway station were also mentioned multiple times in this question.



Figure 37. Development areas in the town

6.3 CONCLUSION

This survey shows that the people of Haapsalu are very interested in what is happening in the public spaces of the town and want to have a say. It was said that the local municipality should primarily focus on improving the well-being of local residents and not only on the tourists and summer visitors. The town by the sea should open its face to the sea and provide access to it. Landscaping and greenery should be preserved and developed thoughtfully. The public spaces should be planned functionally and deliberately with a clear priority given to pedestrians. Cars should be removed from the old town as much as possible and the walking and cycling network could be continuous. The public spaces in the residential areas with apartment buildings should be developed for more active use. As said by one respondent, Haapsalu could be a town with 15 000 residents that does not appear asleep in the winter but instead would be one of the best living environments in Estonia - for young people, families and the elderly. Small and compact but everything within reach, green and healthy.

In "Cities for people", Gehl often refers to Venice as a good example of a pedestrian-centered city with small spaces, elegant signals, fine details and many people. A city that offers a wealth of experiences and sensory impressions. Here it might be interesting to note that Haapsalu often refers to itself in the tourism brochures and marketing channels as "Venice of the northern countries". Although Haapsalu has many similarities with Venice, such as the long coastline, a rich historical background and a tourism-oriented economy, Haapsalu probably has a lot to learn from Venice regarding the public spaces and their liveliness. To achieve the same spatial qualities as Venice, Haapsalu needs to apply a systematic approach to designing public spaces.

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7 PROJECT PROPOSAL

7.1 SCENARIOS FOR HAAPSALU

Scenario-planning is a tool that is used by city planners more frequently. It could be described as a thought exercise to figure out what the future will look like for the town or city in question. Many towns, cities and countries around the world but especially in Europe are using scenario-planning to design for the future and keeping different variables in mind.

The four scenarios designed for Haapsalu in this thesis revolve around two pairs of variables – integrated solutions versus individual solutions and regional development versus local development. The scenarios created by combining those variables are called as follows: green city, connected city, smart city and solitary city (figure 38). All four scenarios are realistic but which of them will be true for Haapsalu's future, depends on the decisions made over time.

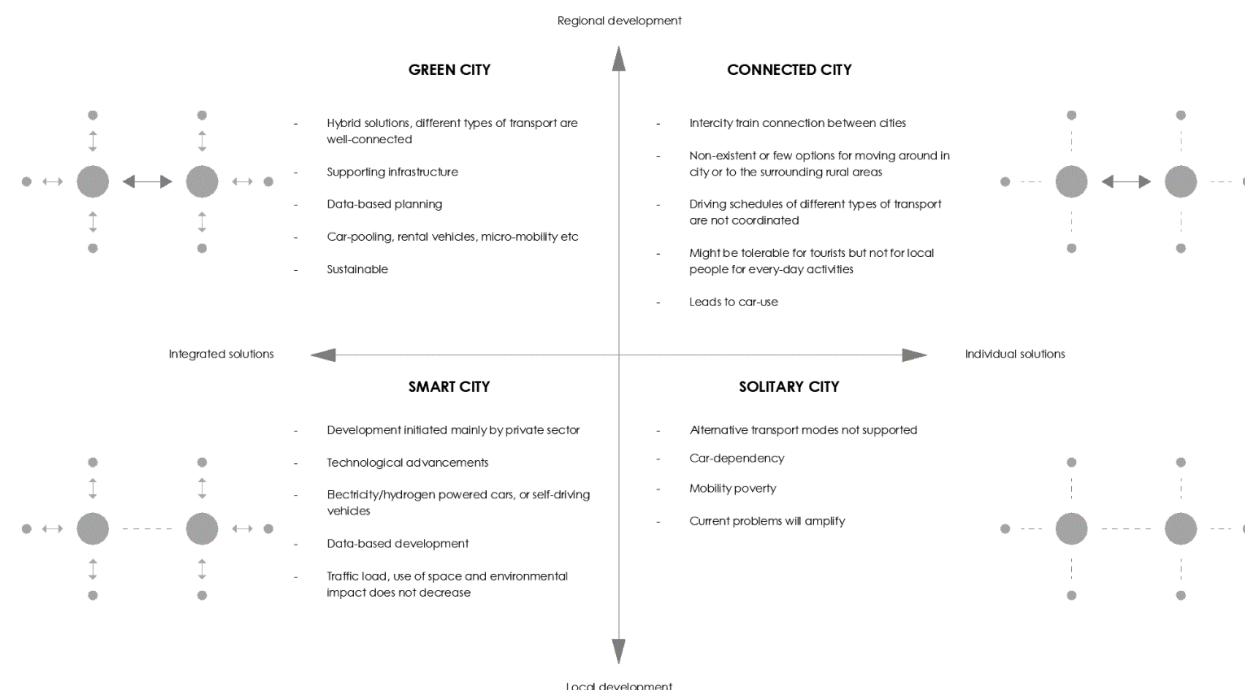


Figure 38. Scenarios for Haapsalu

7.1.1 Green city scenario

The scenario of a green city is the most positive and sustainable scenario of the four. The green city has its view towards the world, it wants to integrate different solutions which transport-wise means that mobility is seen as a service and the use of MaaS (Mobility as a Service) systems are enforced. The concept of the MaaS system is to integrate different types of transport most effectively and between different users so that the end user could select their route in an application for example and the quickest and most effective combination of transport modes

is offered. A green city uses data-based planning and provides supporting infrastructure for different modes of transport. Solutions such as car-pooling, rental vehicles and different micro-mobility solutions are possible inside the city, the intercity mobility is based on train transport.

7.1.2 Connected city scenario

The connected city is oriented towards finding solutions for most efficient intercity travel. Train transport between different cities is functioning well but the options for moving around the city or to the surrounding rural areas are not thought through, driving schedules of different modes of transport are not coordinated. The solution might be tolerable for tourists but not for local people for running every-day errands and therefore the locals will probably be more likely to be using the personal car. The reduction of traffic load, use of space and environmental impact is minimal.

7.1.3 Smart city scenario

A smart city is also data-based but the development is mainly initiated by the private sector. Therefore, the technical advancements or applications are not integrated well with municipality- or state-operated systems. The technical advancement could also mean the wide-spread use of electricity/hydrogen powered or even self driving cars but since the traffic load stays the same, streetspace taken up by cars and the environmental impact does not decrease. The new vehicles might become too expensive for some, which makes new solutions only half-measures.

7.1.4 Solitary city scenario

The solitary city does not support the use of alternative transport modes or technical advancements, nor does it provide the infrastructure for it – the priority is reconstructing and building car roads, not providing better roads for pedestrians and cyclists. This scenario is likely to happen if nothing changes, the train connection will not be built, and everything stays the same. This scenario would lead to the worsening of current problems, car-dependency and mobility poverty in poorer households meaning that a large sum of the household budget is taken up by transport/car expenses.

7.2 SELECTION OF THE INTERVENTION LOCATIONS

This thesis tries to understand and improve the shortcomings of Haapsalu's public spaces by proposing site-specific solutions in locations that could be working as lively and well-perceived public spaces, but for some reason are not. The selection of the locations where the proposed interventions could have the biggest effect relies on the survey conducted among the

residents, the town master plan as well as observations of the town. Whereas the general conclusion from the survey was that the town's public spaces, infrastructure network and landscaping should all be improved and developed in a thoughtful and comprehensive manner, this thesis proposes to intervene in the biggest nodes of the town.

The importance of nodes was first addressed in Kevin Lynch's influential theory "The Image of The City" where Lynch stated: "Nodes are the strategic foci into which the observer can enter, typically either junctions or paths, or concentrations of some characteristic. But although conceptually they are small points in the city image, they may in reality be large squares, or somewhat extended linear shapes, or even entire central districts when the city is being considered at a large enough level. Indeed, when conceiving the environment at a national or international level, then the whole city itself may become a node. The junction, or place of break in transportation, has compelling importance for the city observer. Because decisions must be made at junctions, people heighten their attention at such places and perceive nearby elements with more than normal clarity." Lynch says that this tendency was confirmed so repeatedly in his research that elements located at junctions may automatically be assumed to derive special prominence from their location. (Lynch, 1960)

The nodes of the city/town are places where people gather, where the roads lead, where people make decisions and move on to other destinations. In the master plan of Haapsalu, the old town square, the intersection of the biggest roads near the mall and the areas near the sports center and primary school are considered the nodes of the town. In the survey, the first of the two were mentioned several times, whereas the sports center area was not. The railway will most likely be reconstructed in the future and since the railway station is currently functioning as a bus station and a museum that plans to expand and improve its exhibition areas, the railway station area will also become an important node of the town in the future. It will be a transportation hub where people transfer from one mode of transport to the other and it will be the first location visitors see in the city. In the survey, many pointed out that the area could be improved and have more attractions.

Relying on the former analysis, three nodes of the town were selected as intervention locations for the project proposal: the old town square as the tourism node, the mall at the intersection as the business node and the railway station as the transportation node (figure 39). Carefully intervening in these selected strategic locations and applying the slow space qualities to the public space could have a catalytic effect on the overall perception of the town and the residents' consumption habits.

All three areas have individual character, but the common theme of the interventions is to encourage using alternative modes of transport or walk instead of taking a car for running the every-day errands in short distances. Cars are not removed from the public space entirely - they are either made less visible or put a little bit further away to provide the public space of the areas achieve their full potential as an urban setting.

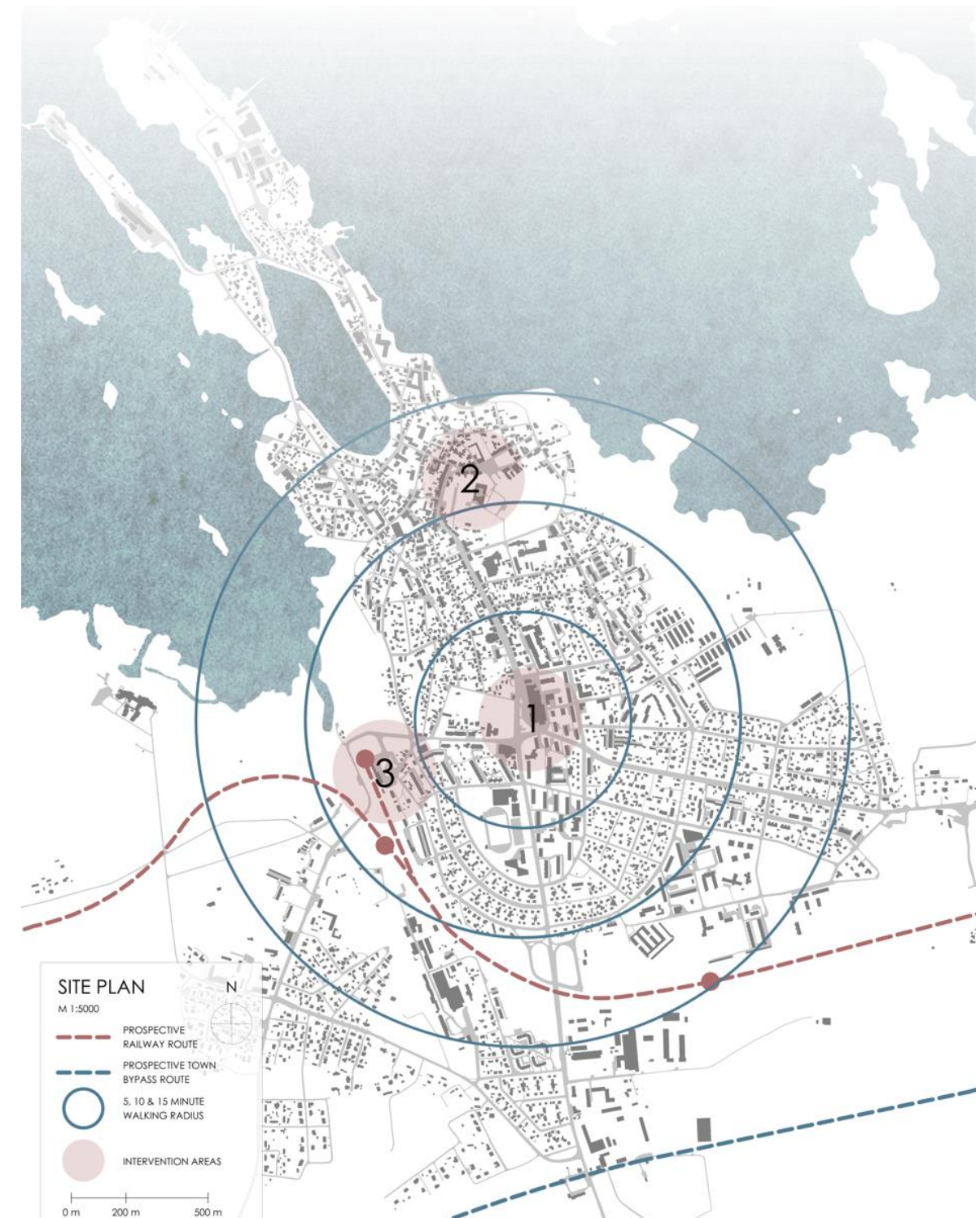


Figure 39. Site plan of the selected areas

7.3 INTERVENTION 1 – BUSINESS NODE

The first intervention area could most likely be described as the busiest place in town since it lies at the intersection of the most important roads and streets of the town – the Posti street connecting the old town; Tallinn Road and Jaama street which are the main east-west arteries for going through the town; and the Lihula road which is directed towards south, the towns of Lihula and Pärnu.

The most dominant building in the intersection is a shopping center built in the nineties. The center has been built with an “American shopping mall” concept where the large parking area is placed next to the street and the building itself taken further away from it. The shopping mall volume is in contrast with the historic town structure and cityscape that consists of much smaller units along the narrow streets (figure 40...42).



Figure 40. Aerial view of business node 2018 (Maa-amet)

In addition to the shopping center, there are lots of establishments, businesses, stores and offices near the area, as well as many soviet-time five-storey-high apartment buildings (figure 43). The business node encounters much traffic throughout the day and as seen from the survey responses, the focus in traffic planning is on cars. The traffic lights are optimized for best flow of car traffic, the parking lot in front of the big shopping center is lacking greenery and does not take the natural paths of peoples' movement into account, the walking paths are uneven and with obstacles, the pedestrians and cyclists always need to push the button to cross the road and so on.



Figure 41, 42. Current situation

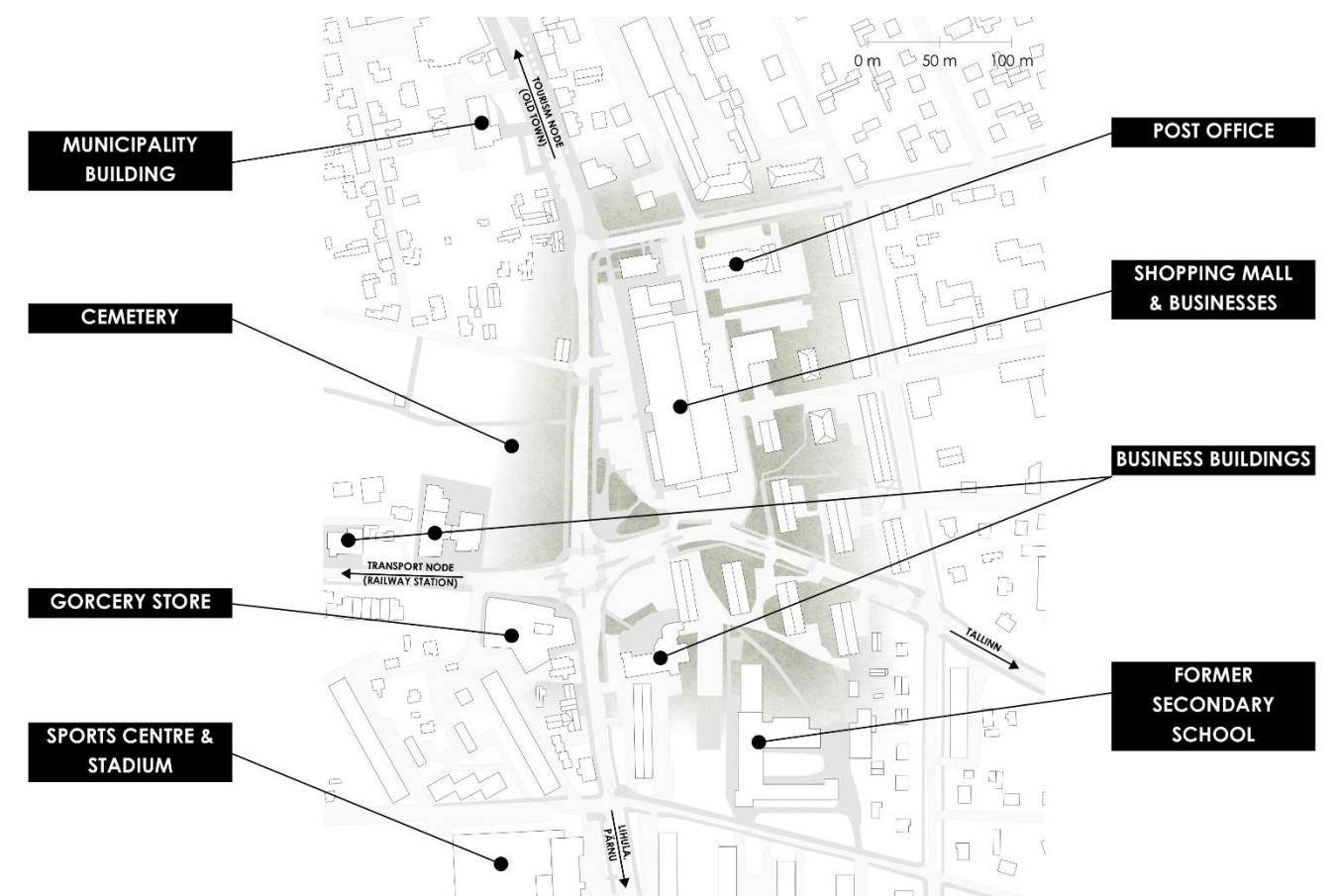


Figure 43. Nearby establishments (existing situation)

The intervention concept of this area deals with the uncertain areas in front of the big shopping mall as well as the area on the other side of Tallinn Road that lies in front of a soviet time business building which is in poor state. The design of the area envisions demolishing the mentioned business building as well as a small volume of the large shopping center that breaks up the public space on ground with its slope to the underground (figure 44).

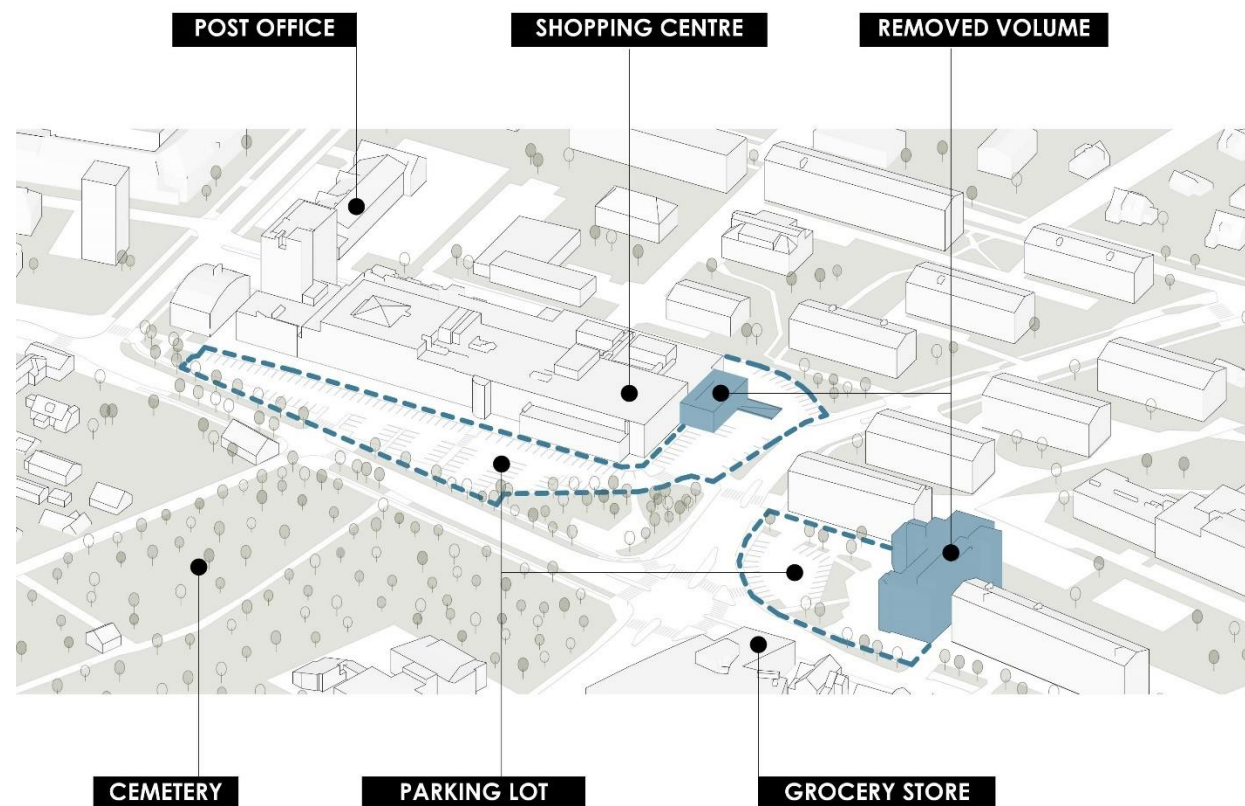


Figure 44. Existing situation and removed volumes

The business node is the area of the biggest spatial intervention (figure 45, 46). New volumes with different heights reaching up to three storeys are proposed along Posti street and Tallinn Road where they define the streetline as well as create a smooth transition between the out-of-scale shopping center building and historical cityscape of smaller volumes (figure 50). The new business building at the corner of Tallinn Road and Lihula Road proposes a more dominant volume with a tower up to seven storeys. The total gross floor area of new buildings is 7840 m².

Parking is proposed mostly as underground parking near and underneath the new volumes but there are plenty of on-ground parking spots near the business building and eight new parking spots are designed along Posti street to provide a location for pick-ups, drop-offs, and short-term parking. A new slope is proposed along the short side of the shopping mall to provide access to the underground parking lot. The underground parking lot also makes use of an existing slope north of the shopping mall. The new slope between the shopping mall and new buildings is covered with recreational terraces for spending time with friends or having a small break.

The space between the new buildings and the existing shopping center is possible to take into use as a pedestrian street. The axis of the pedestrian street continues along to the other side of the road where a new community garden is proposed at the end of it. The pedestrian street is articulated with an urban square in front of the main entrance of the existing shopping center. The new pedestrian oriented public spaces allow people to interact with the buildings – to have inviting windows or café terraces and expand the life outside of the building.

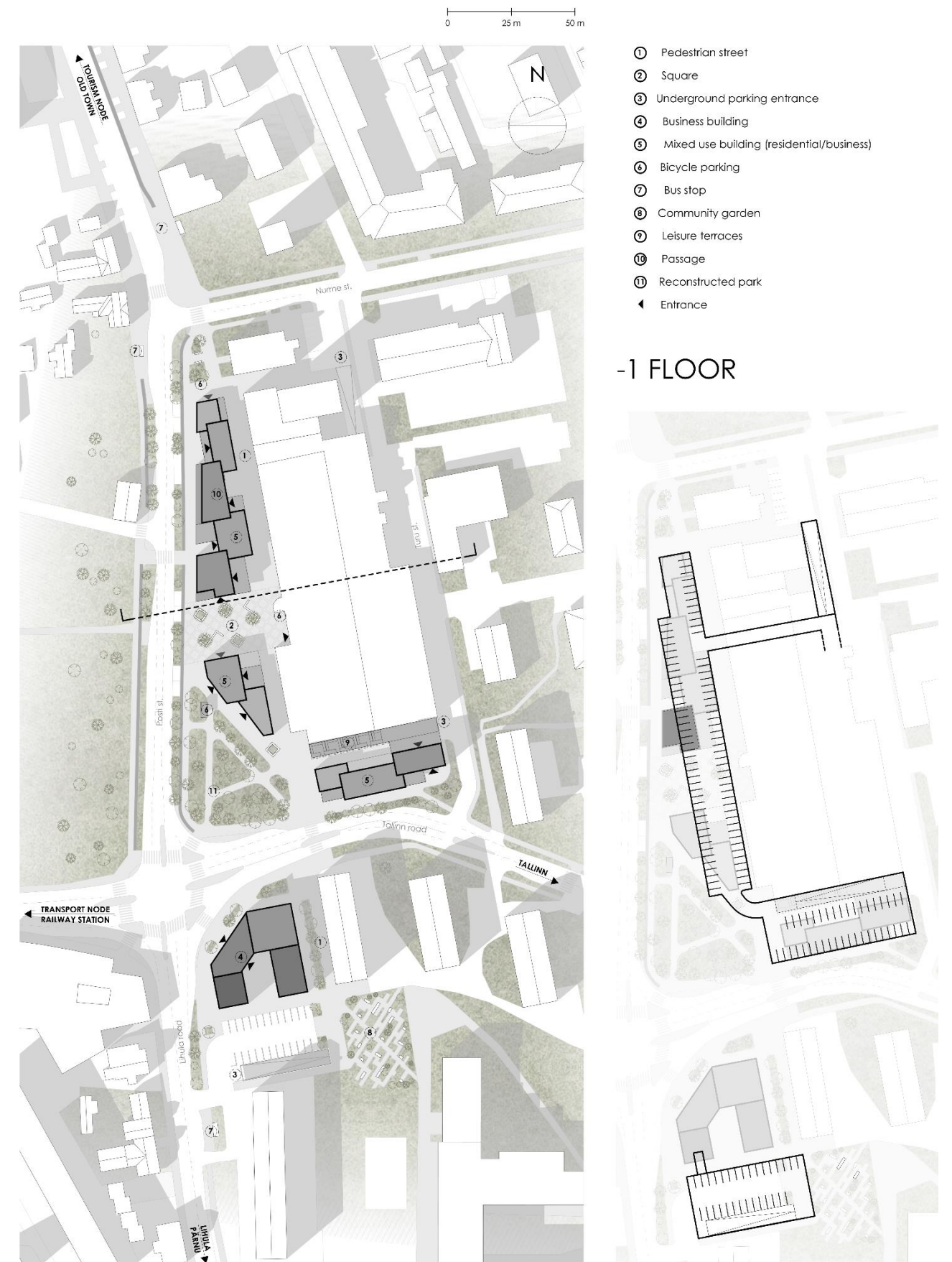


Figure 45. Site plan of business node

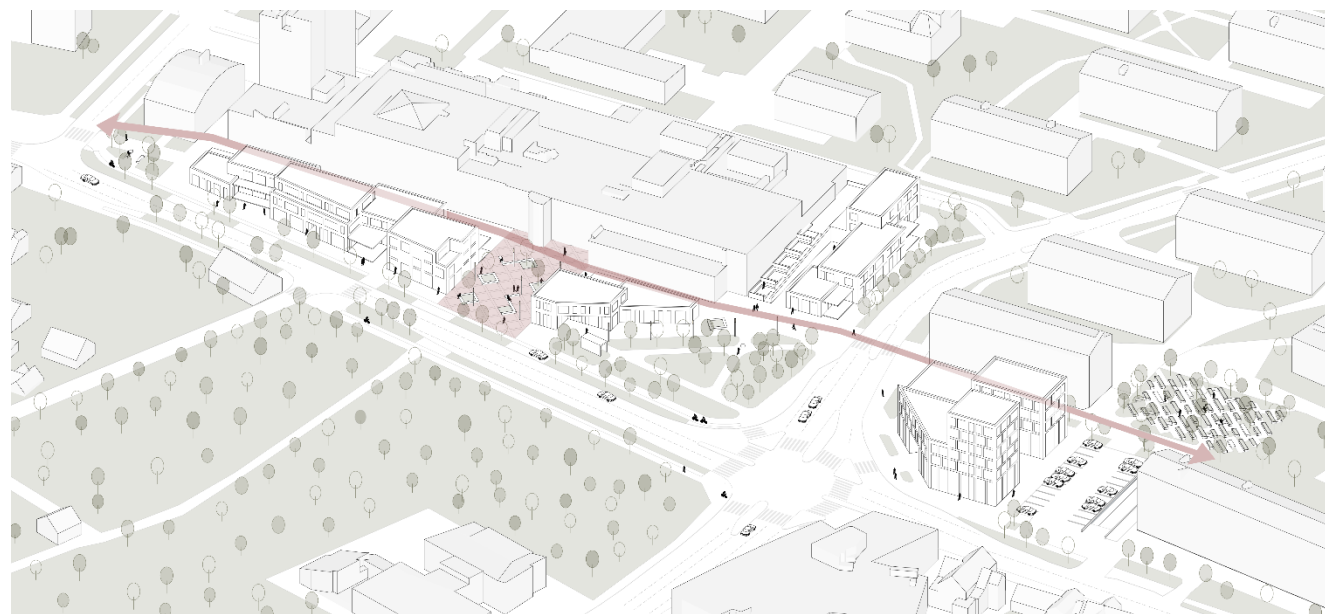


Figure 46. Overview of business node

Currently, the first intervention area accommodates about 114 parking spots around the shopping center and 26 parking spots around the Soviet-time business building. The designed solution proposes altogether 193 parking spots, of which 138 are near the shopping center and 55 near the new business building. Therefore, the number of parking spots has even increased but considering the added floor area, the number of parking spots is not too much. The proposed solution indicates how rethinking and redesigning the given space could benefit all without taking too much away (figure 47).

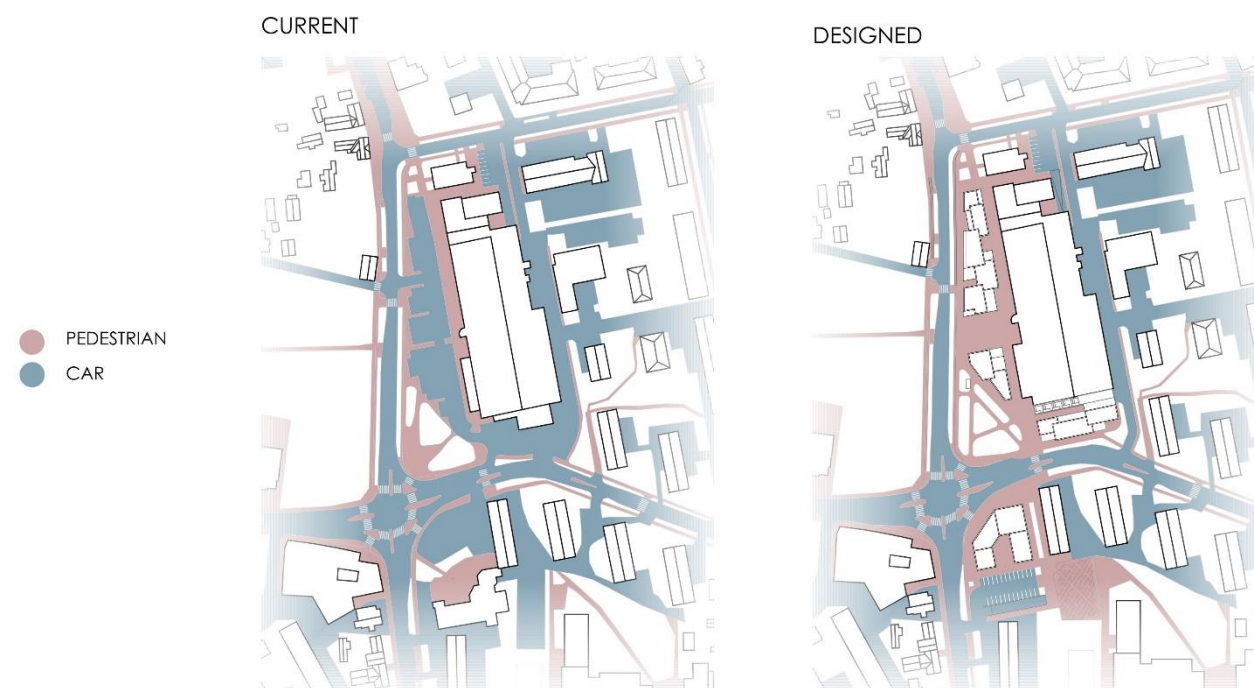


Figure 47. Illustration of shift of priority in current and designed land use

The designed solution offers places for covered bicycle and scooter parking as well as different street furniture integrated with greenery around the area (figure 48, 49). The park around the intersection area has been untouched for decades and since the initial design of the park did not consider the natural walking paths, people have created their own paths across the park. The park accommodates a war memorial and graves of soldiers, which are likely to be reburied in the near future to the original burial ground and a place that is not as busy and offers dignified peace. Therefore, the park has been given a new design that takes the natural walking paths of people into account and offers places for sitting down.

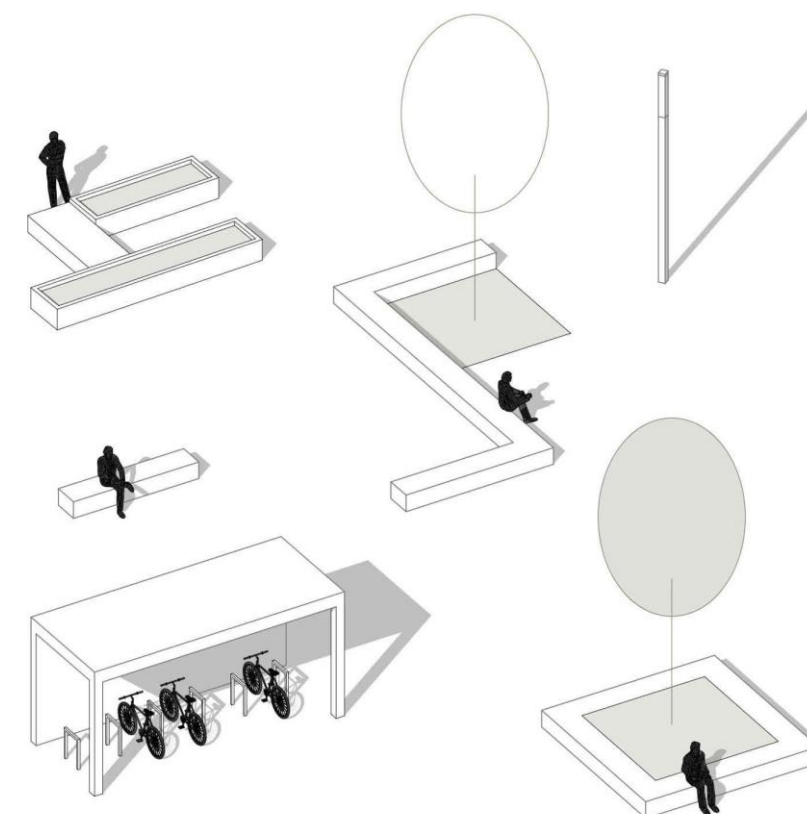


Figure 48. The street furniture of business node

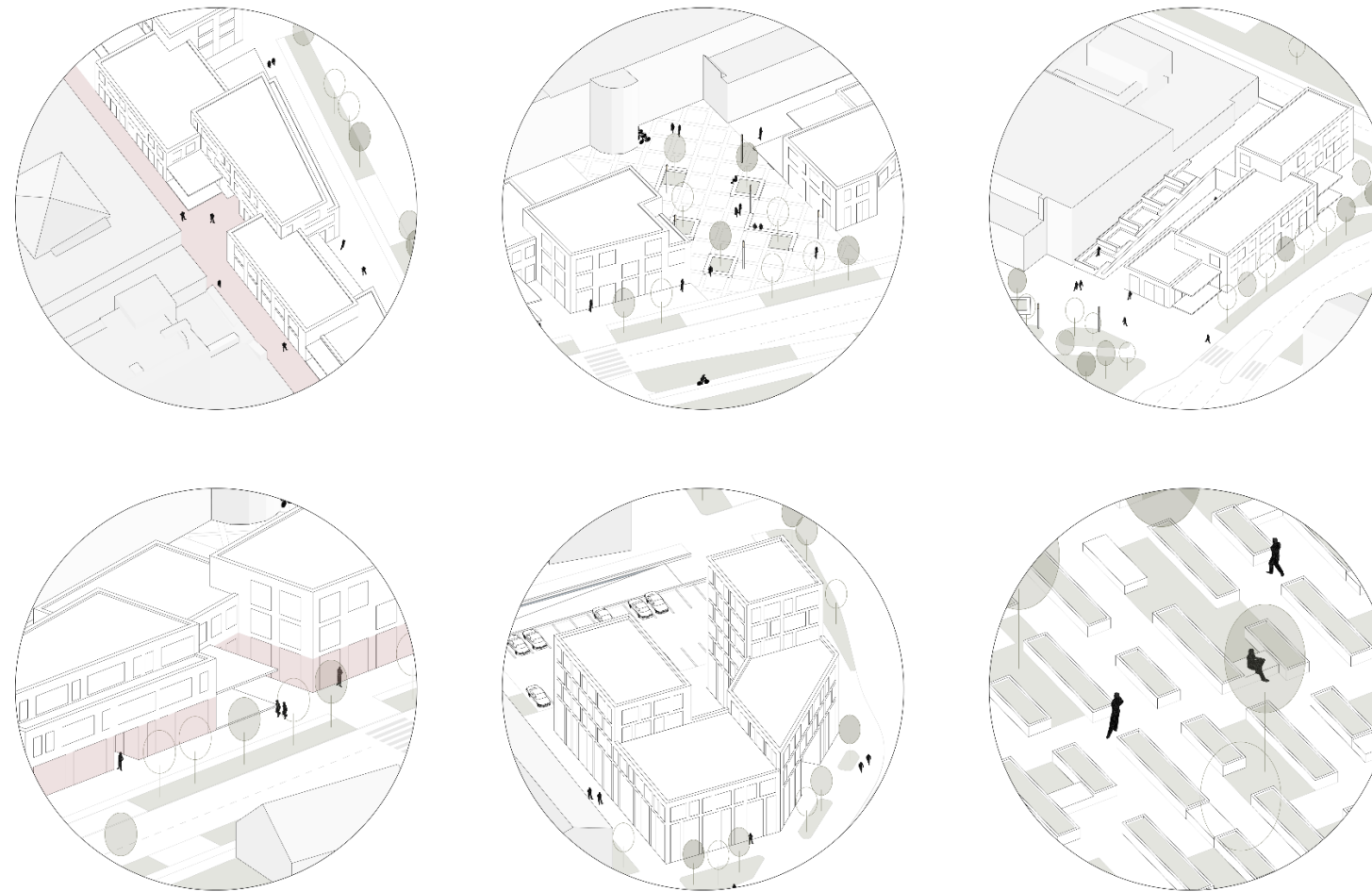


Figure 49. Key locations at business node: 1 - pedestrian street, 2 - urban square, 3 – recreational terraces, 4 – active facades, 5 – business building, 6 – community garden

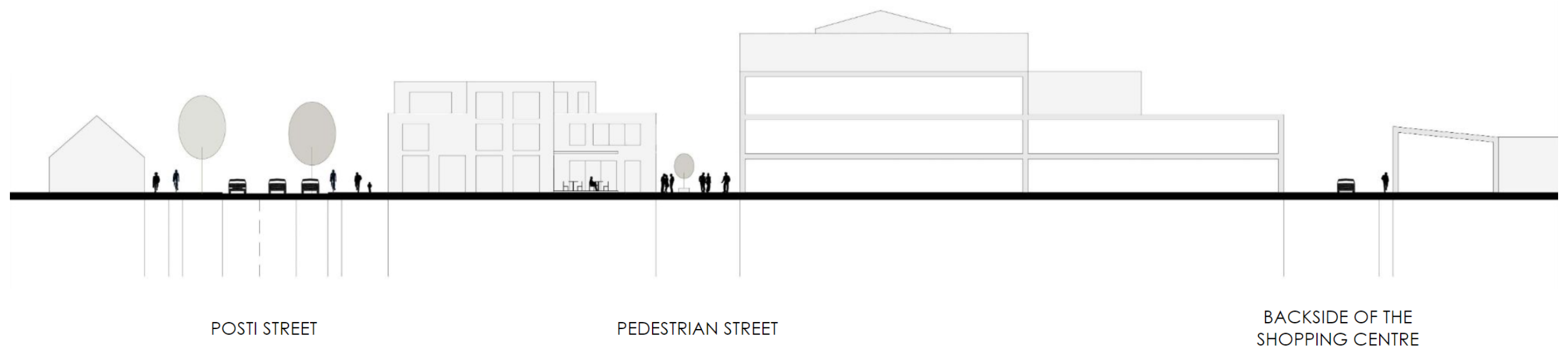


Figure 50. Section



7.4 INTERVENTION 2 – TOURISM NODE

The second intervention area is a tourist hotspot around the summer season – the center of the old town – Lossiplats square (figure 51...54). In medieval times, the square was used as a marketplace, but currently the square is used as a car park. The pedestrians are forced to the edges of the square on narrow sidewalks. There are many attractions, cafes, and museums around the square which makes it a popular place during the summer but during the low season, there are hardly any people around it.

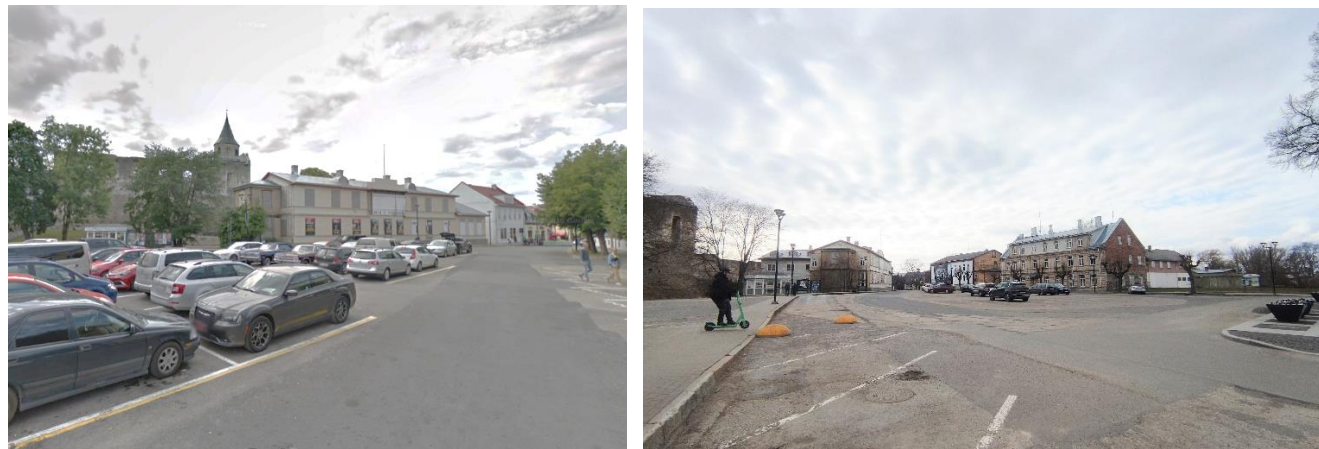


Figure 51, 52. The square in the high season (right) and in low season (left)

The intervention area has potential to be a fully functioning urban square and area for people, not vehicles. The street network around the square consists mostly of narrow one-way streets. During the summer the street leading to the square – Karja street – is closed for cars and used as a pedestrian street with multiple café terraces. There is an ongoing competition for finding a solution for a new municipality building at the Lossiplats square that will offer a reason for locals to visit the old town during the low season as well.

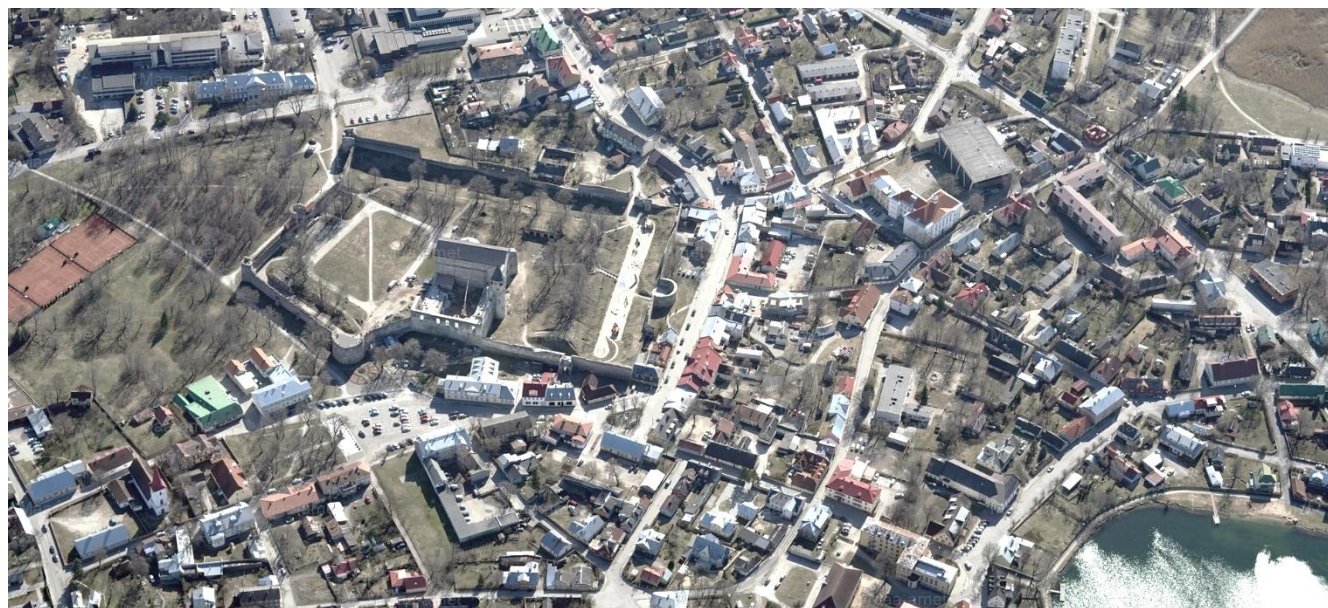


Figure 53. Aerial view of tourism node 2019 (Maa-amet)

The design proposes Karja street as a shared street from the Saue street – the passage for motorized vehicles is not closed entirely but the priority is given to pedestrians. For this shift to work, the streetspace should encourage pedestrians to move freely and propose activities or resting spots and benches on the street which make car drivers slow down and pay more attention to the surroundings. The area between the square and the war monument is also proposed as a shared street to connect the monument to the square and enable to reach it without obstacles.

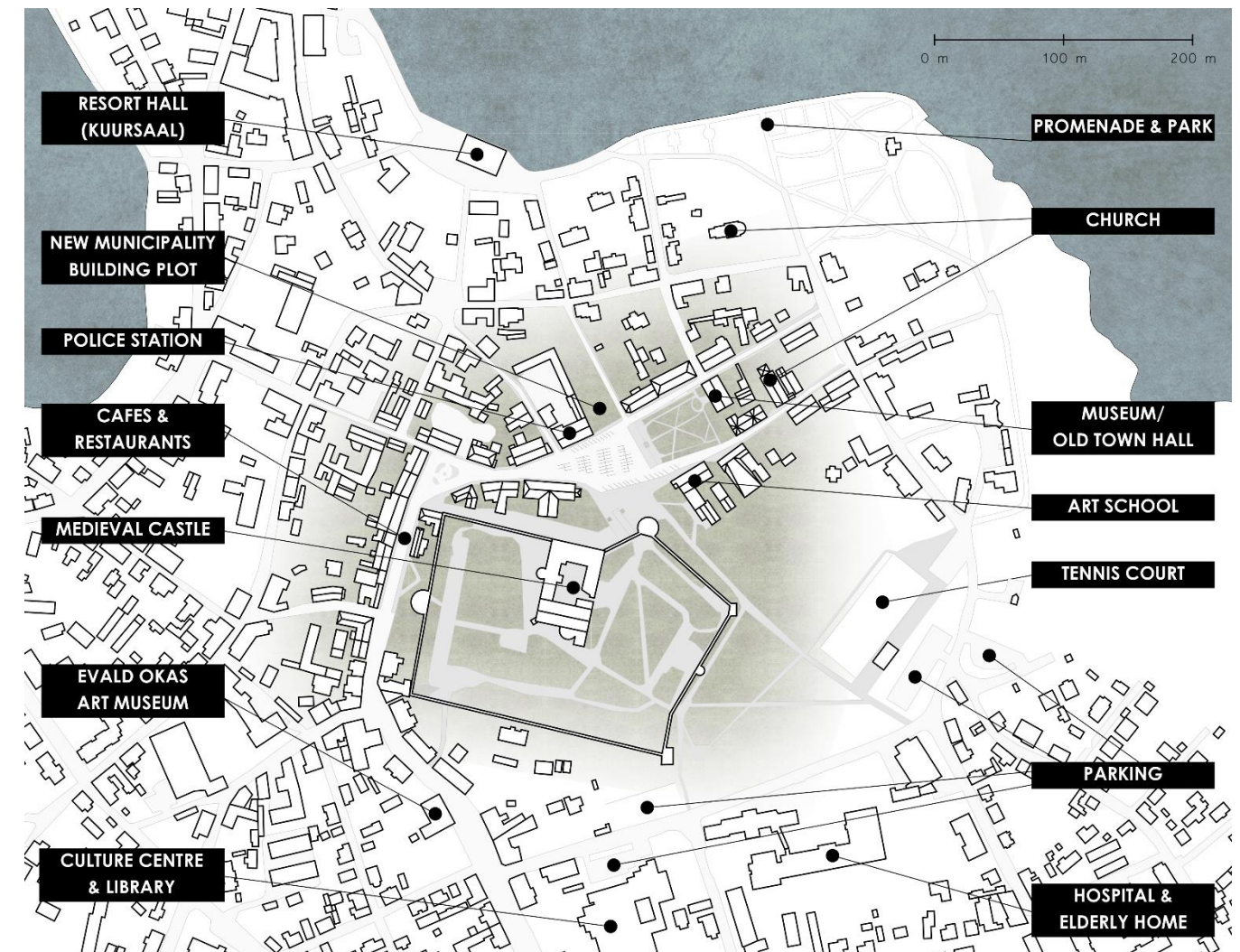


Figure 54. Establishments near tourism node (existing situation)

The design proposal of the node suggests a functional urban square and takes into account the natural movement of people (figure 55, 56). The walking direction from Karja street towards Jaani street acts as a divider of two areas – the formal square and the more relaxed pavilion area. Whereas there are many important directions from the square, the square is oriented towards the war monument and flags. The square itself framed with streetlights, benches and trees. The pavilion offers a place for stopping and resting in the shade and the rooms integrated into the pavilion could function as a café, an ice-cream kiosk or even a tourist information center or public toilet. The entrance to the castle is left open for enabling delivery access by trucks for the bigger events in the castle.

In addition to the pavilion, a new volume is proposed near the narrow corridor between the square and Karja street. The location serves as a stop for the town bus but could also be used for drop-offs, pick-ups and for tourist bus stop in addition to the areas other side of the castles. The bus stop pavilion is large enough to offer a covered parking spot for bicycles and scooters. An additional bicycle and scooter parking spot is proposed near the pavilion at the starting point of the road around the castle through a green park (figure 58, 59, 60).

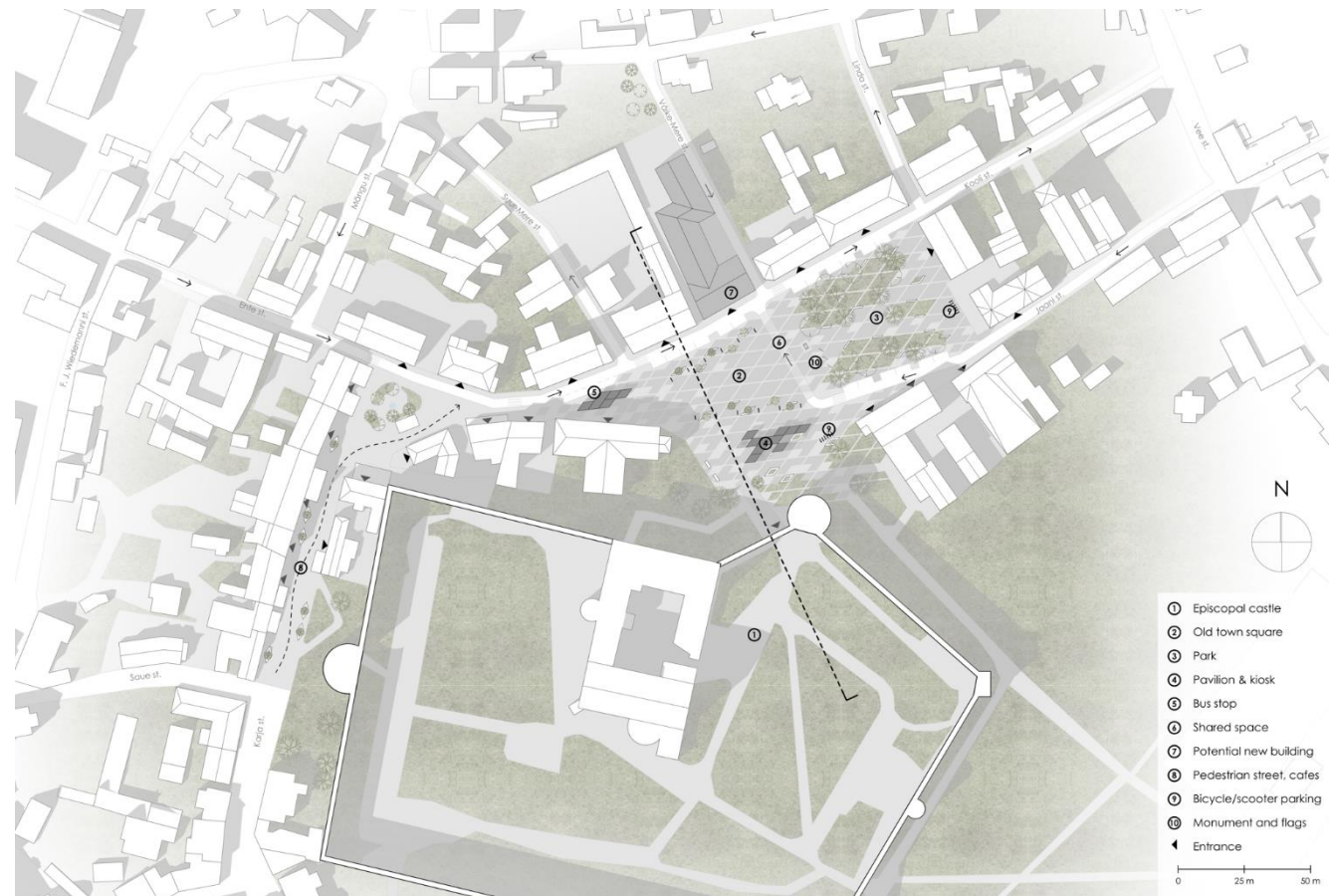


Figure 55. Site plan of tourism node

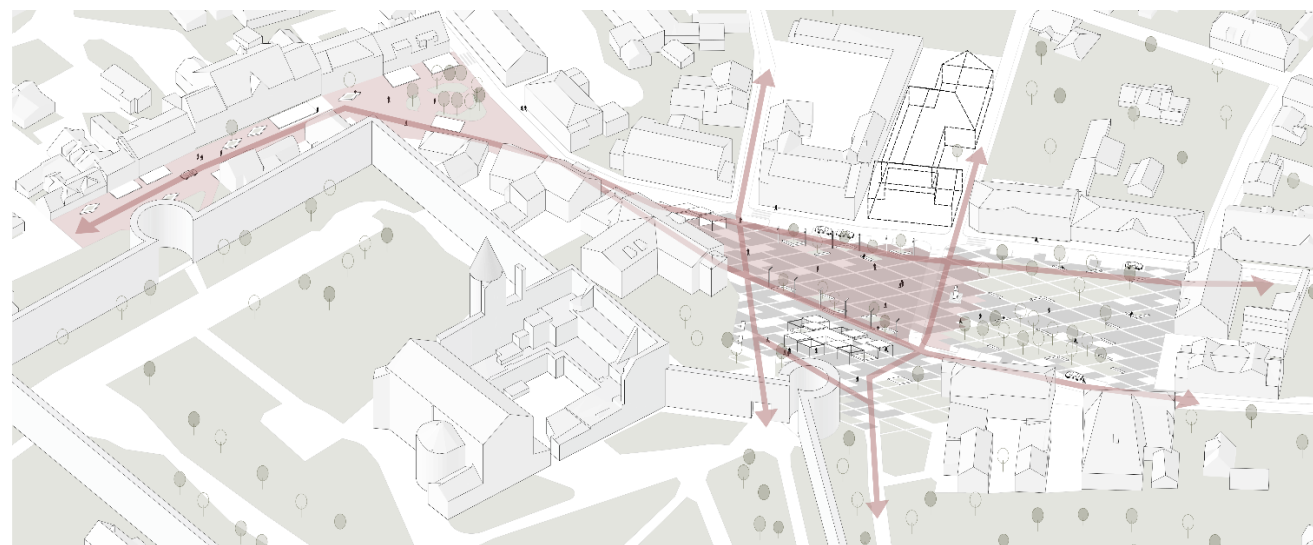


Figure 56. Overview of tourism node

The town has recently built new parking lots on the other side of the castle which could compensate for removing a big portion of parking spots from the square. Currently there are about 65 parking spots around the square. The new parking lots offer 74 additional parking spots, and the design proposal suggests 18 parking spots for short-term parking and disabled people. Therefore, there will be less cars at the heart of the oldtown and the space will encourage people to walk but it will still be possible to park near it (figure 57).

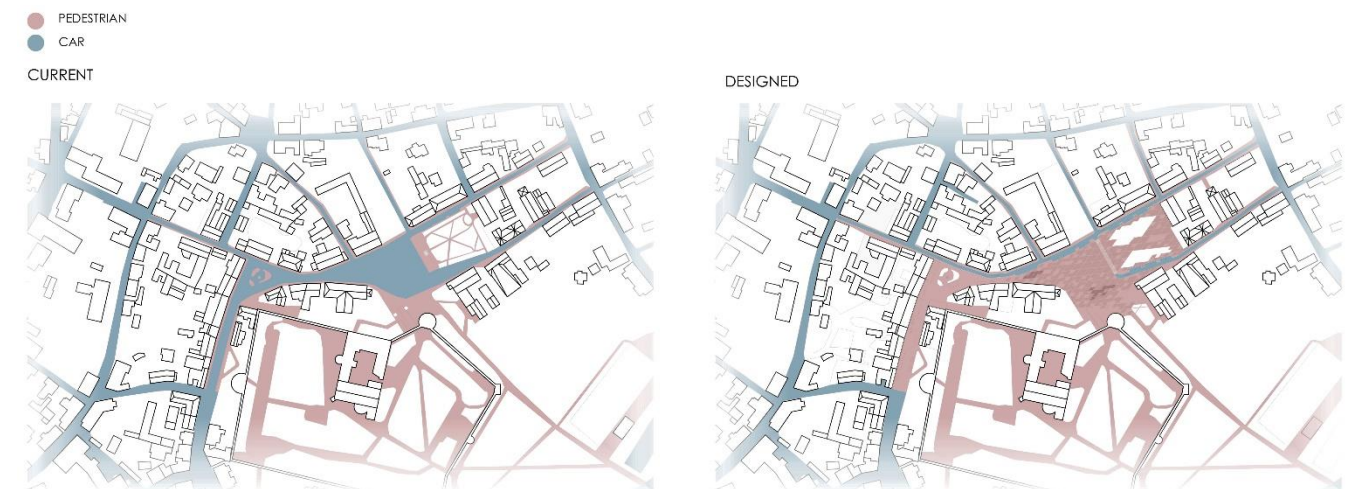


Figure 57. Illustration of shift of priority in current and designed land use

The park area behind the monument is also redesigned. Currently the park paths are muddy when there has been rainfall and the park does not offer places for sitting down. The new design for the park considers the walking paths of people, uses the same street furniture elements as around the square and offers multiple options for resting in the shade in summer.

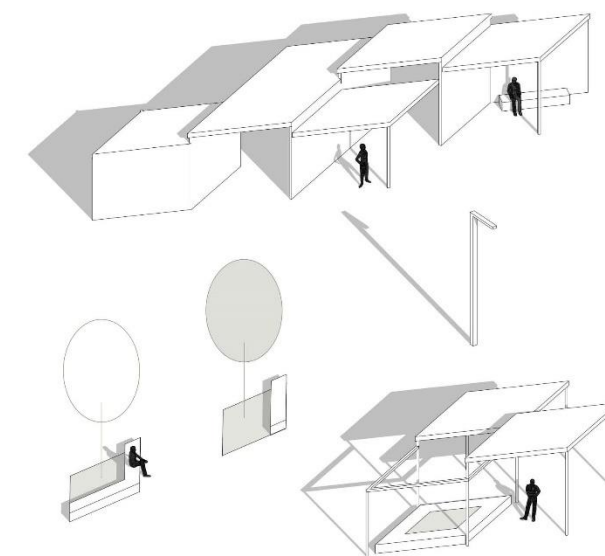


Figure 58. Street furniture

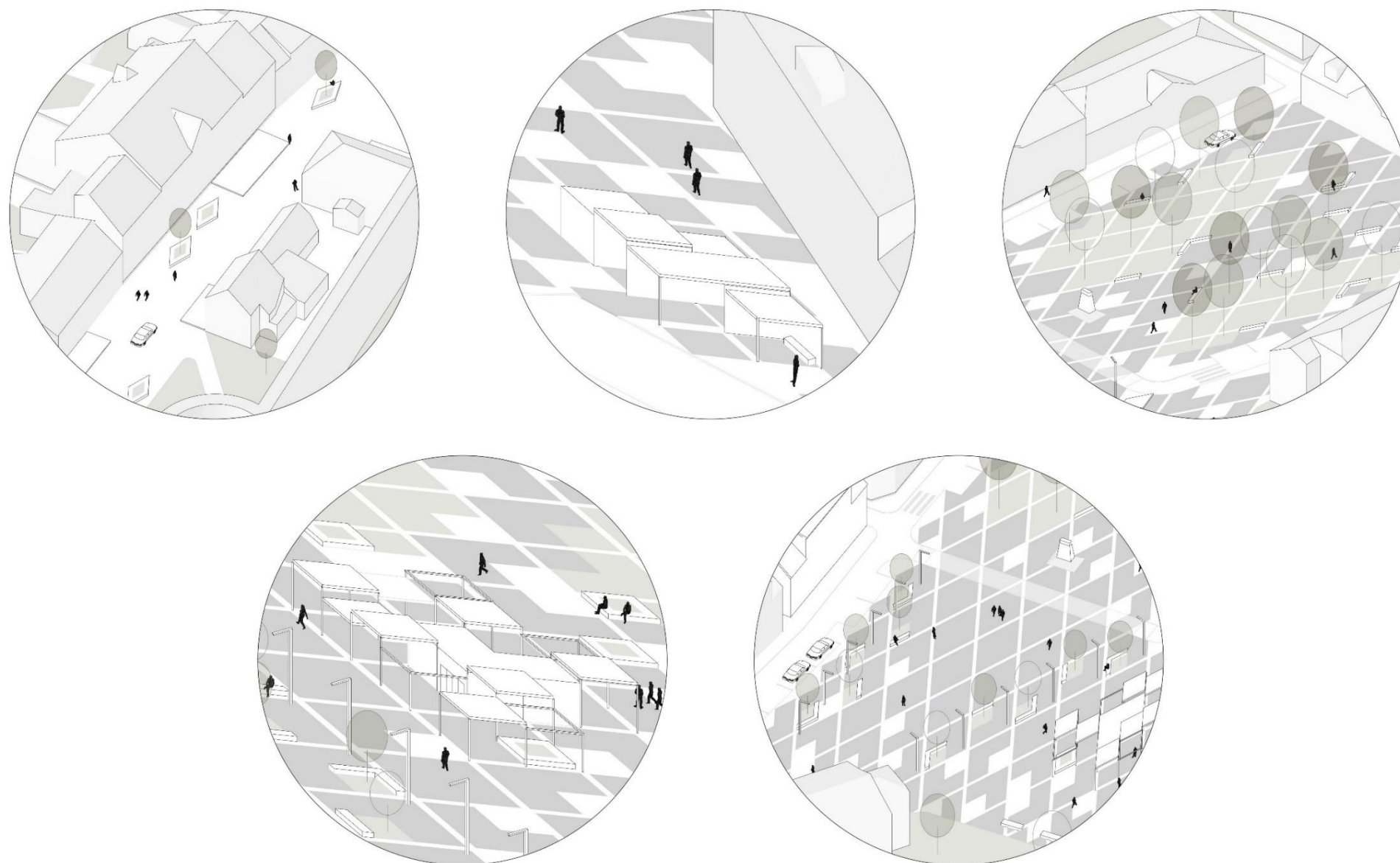


Figure 59. Key locations at tourism node: 1 – Karja street as a shared street, 2 – bus stop, 3 – park, 4 – pavilion, 5 – square

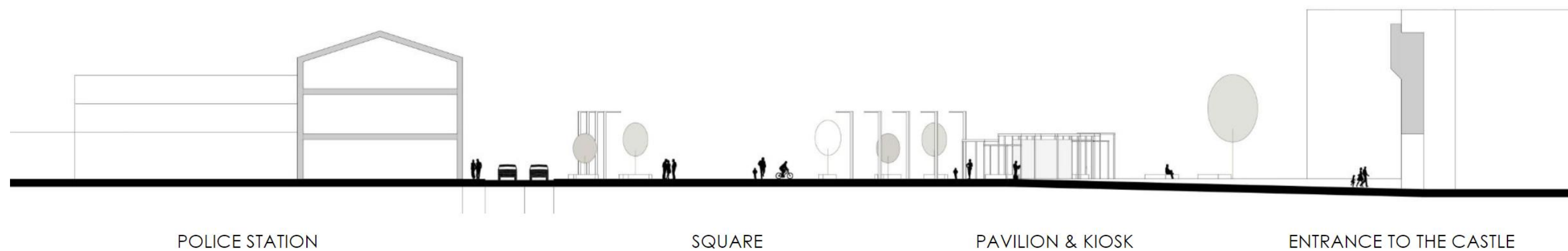


Figure 60. Section



7.5 INTERVENTION 3 – TRANSPORT NODE

The third intervention area – the transport node does not encounter too much traffic at the moment. The station building is popular for pictures and filmmaking but not for too much else. The station area serves as the region's biggest bus station and a railway museum (figure 61), but the museum is not too popular among tourists and the bus station is not in too much use since the locals usually get on and off the bus on other stops nearer to the town center or residential areas. Still, when the railway connection between Haapsalu, Tallinn and perhaps even Rohuküla harbor will be reconstructed and the railway museum expands its exhibit, the area will serve as an important node of the town.

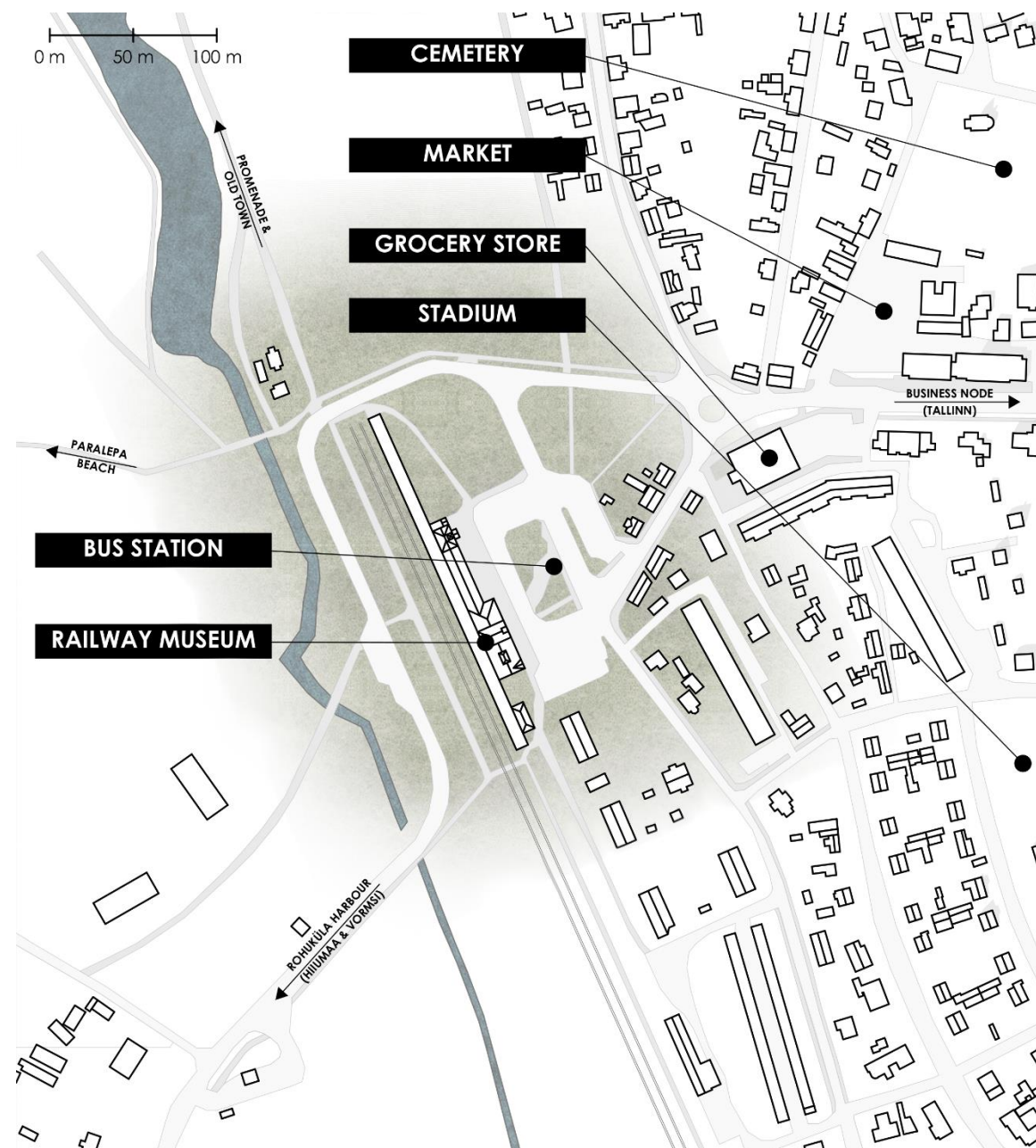


Figure 61. Establishments near transport node (existing situation)

The area in front of the train station could be described as undefined – an island of greenery between fields of asphalt where the traffic organization is uncertain (figure 62, 63). The pedestrian connections and crossings of the area are not well connected to the rest of the town. Whereas the design of the public space around the train station is important when the train connection is restored, the area still could use better defining in case it is not and the area functions just as a bus station and museum.



Figure 62, 63. Aerial view of transport node 2014 (Maa-amet) and the bus station

The design proposal for the transport node suggests defining specific areas for different modes of transport (figure 64, 65, 69). There is a separated location for town buses, long-line buses and tourism buses as well as a drop-off zone for short stops that also works as a stop for the sightseeing train for introducing the town to guests. The different bus stops are equipped with pavilions that provide shelter for people as well as for the micro-mobility vehicles like scooters or bicycles when necessary. The area near the drop-off zone is not equipped with a separate pavilion since it is the closest to the existing historical gallery of the railway station and a new shelter in front of it would not be necessary.

The area in front of the railway station is divided into three segments – the park, the bus station and the square, all of which have a slightly different character. The park area is currently only used for going through and the path across the park is not paved but rather just developed over time. The designed solution offers multiple sidewalks around and through the park in addition to the new attraction – a playground. The tourist bus stop is also situated near the edge of the park.

The design of the middle section of the area proposes a long, curved pavilion between the railway station and long-line bus station. The long-line bus station is designed to accommodate six full-length buses and eliminates the need for buses to reverse. Instead, the buses can enter the station and exit it without having to endanger the pedestrians. The areas around the pavilion offer shade, trees and places for rest.

The third segment of the area suggests a formal and defined urban square in front of the main entrance of the railway station. The area allows entertaining different events such as fairs, exhibitions and parades. The square is defined with symmetrical groups of trees that allow the square to continue under them. Near the third segment there is also a spot for information

boards since the train station would most likely be a spot where people visiting the town go to explore the town and need directions, ideas or timetables for different events (figure 67, 68).

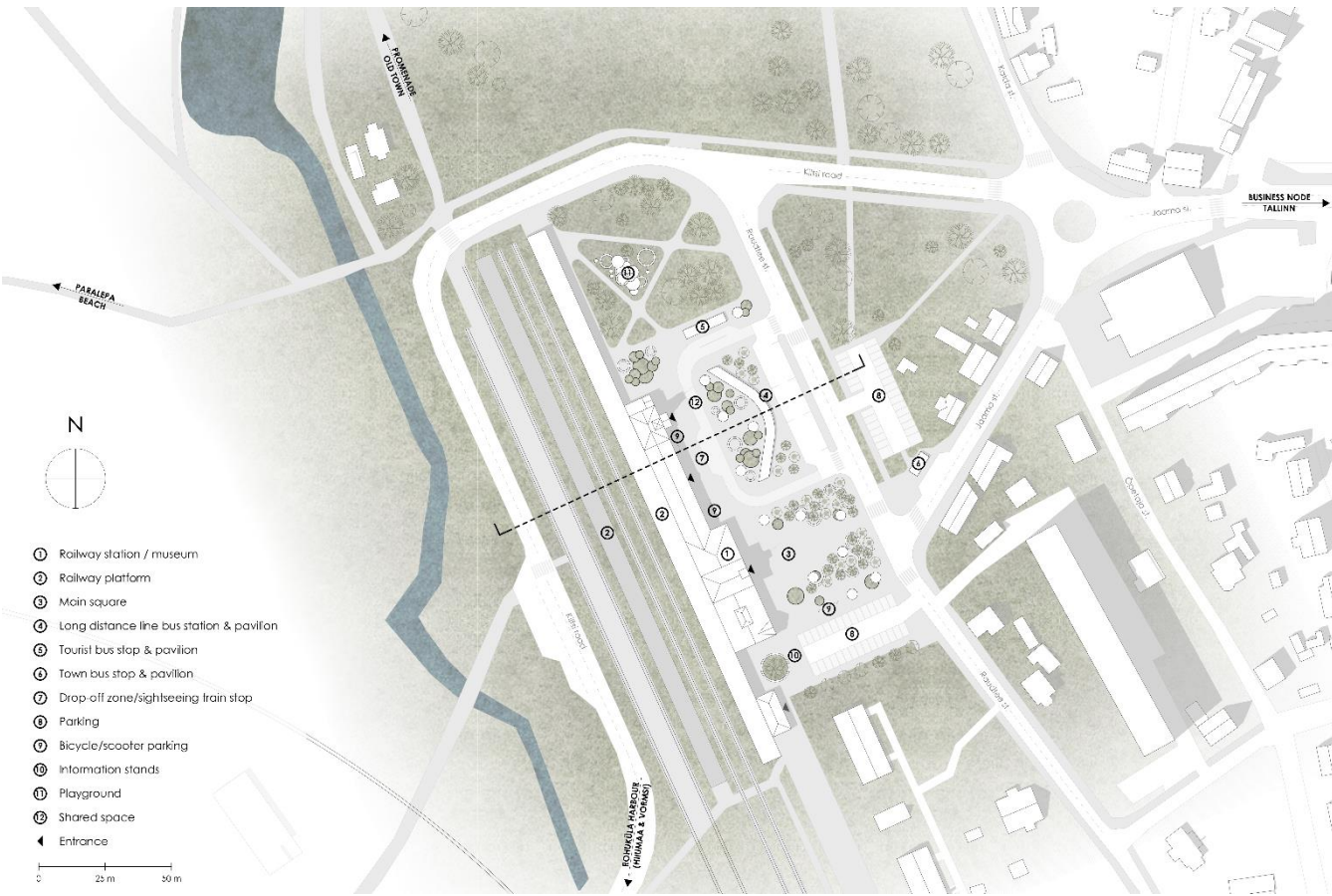


Figure 64. Site plan of transport node

Whereas having a café or a restaurant around the area, a dining spot is not proposed for the public spaces near the square since two new cafes are planned into the historic station building complex.

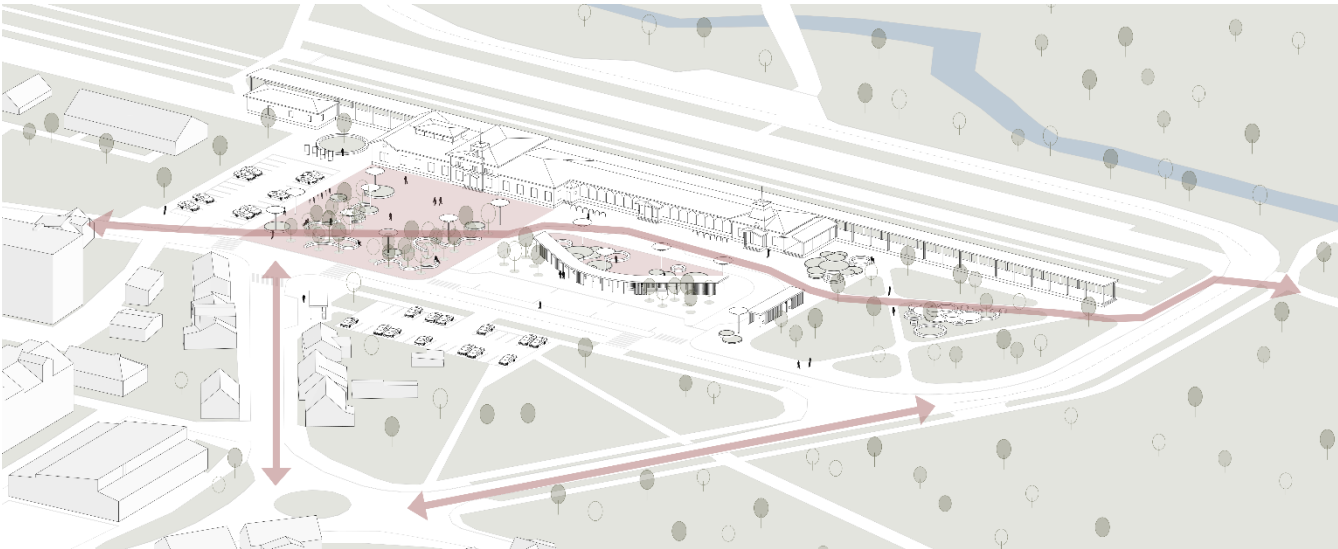


Figure 65. Overview of transport node

Parking in the tourism node is designed to the edges of the public areas and divided between two parking lots. One of the parking lots stands near its current spot and the other is situated closer to the main entrance of the station building. The parking lots accommodate 59 parking spots (figure 66).

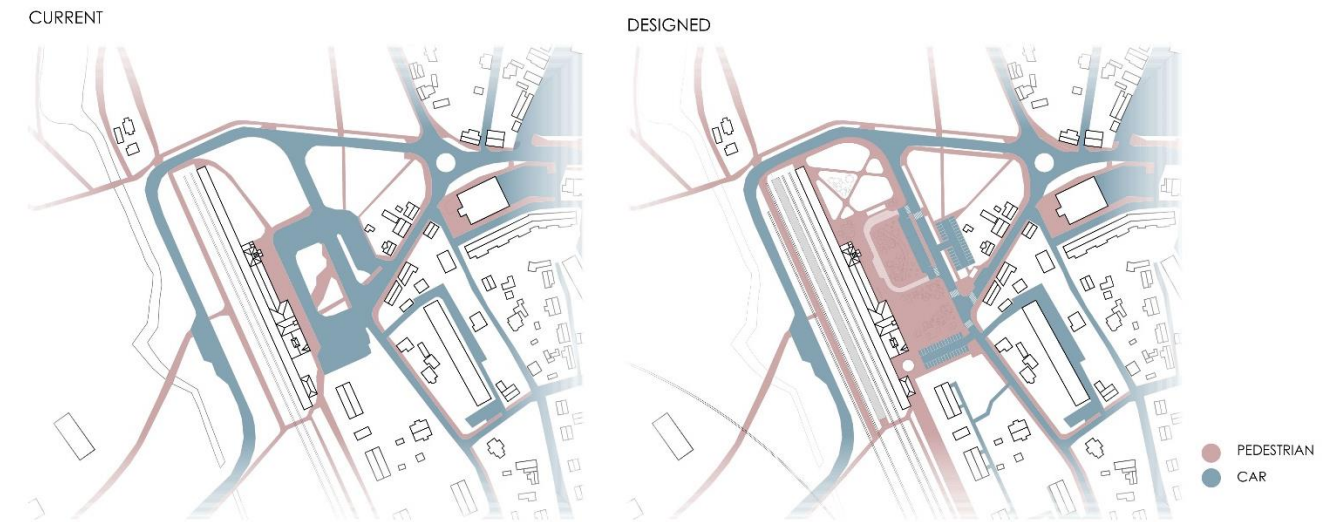


Figure 66. Illustration of shift of priority in current and designed land use

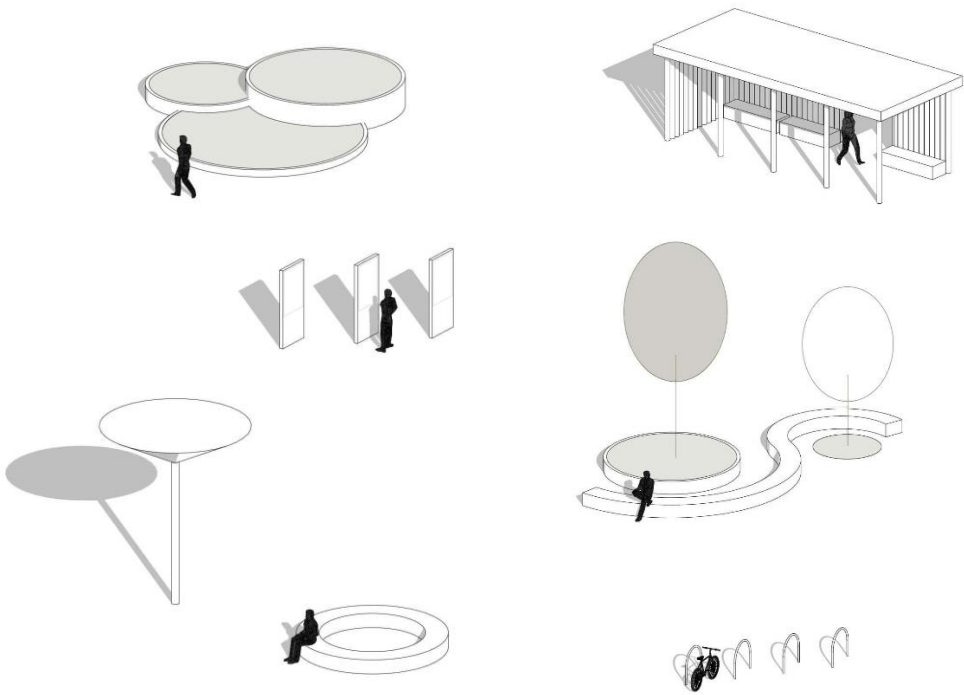


Figure 66. Street furniture

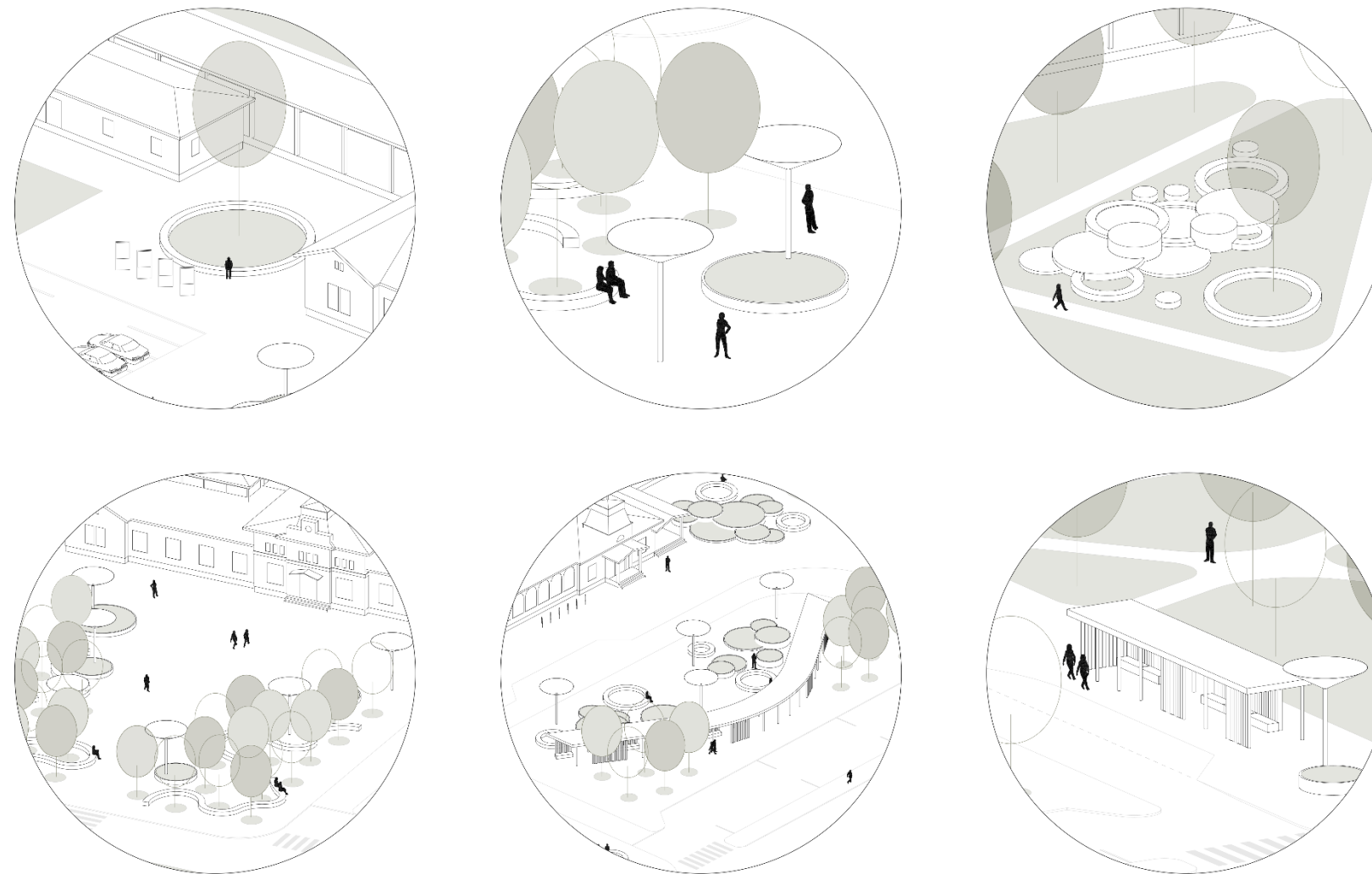


Figure 67. Key locations at transport node: 1 – information stands, 2 – street lights / parasols, 3 – playground, 4 – green square, 5 – long-line bus station, 6 – tourist bus station

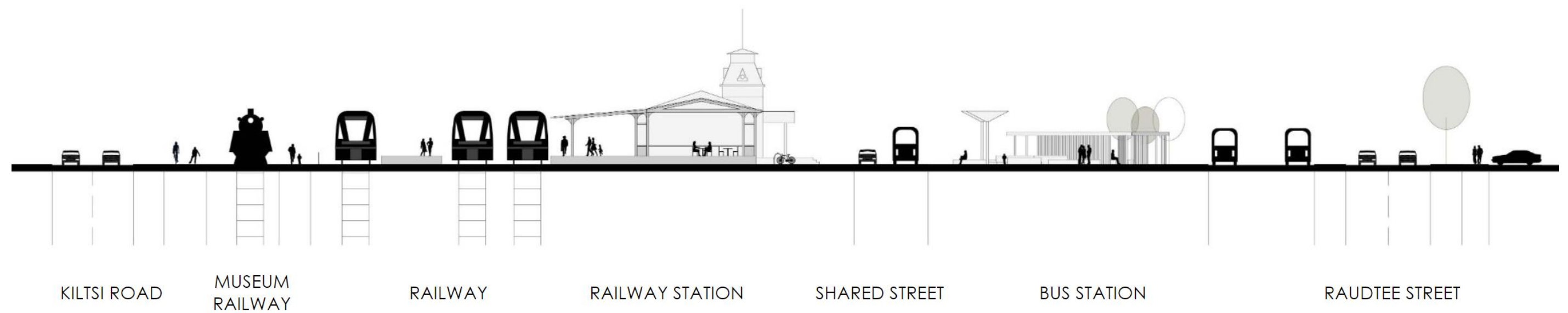


Figure 69. Section



7.6 OTHER SUGGESTIONS

Even though applying changes to the nodes of public spaces, the change towards sustainable mobility is not possible when the mindset and consumption habits of people do not change. Aiming for truly sustainable mobility requires other simultaneous changes. For instance, reducing the speed of vehicles reduces the risk of traffic accidents and their severity. The regular speed in Estonian towns is 50 km/h which is reduced in few areas. The normative of speed limit in towns should fall to 30 km/h.

Yet, only reducing the speed does not give expected results when the surrounding environment encourages driving faster. Therefore, it should be necessary to reduce the width of driving lanes where possible and widen the sidewalks for pedestrians. Obstacles, such as an uneven pavement, curves or interruptions on the road could also be helpful but might not be too favored among the car drivers.

Building and reconstructing infrastructure should always be done prioritizing the weaker traffickers – children and disabled people. Instead of building new roads the focal point should be improving the existing sidewalks, making them accessible, smooth and well-connected.

The infrastructure should also get better for drivers moving at different speeds. For example, to avoid collisions, cyclists and scooter-drivers should be separated from each other when possible. To encourage micro-mobility, the possibilities for parking personal vehicles such as

bicycles or scooters should be made more comfortable – there should be ground-level storage rooms or covered sheds for bicycle parking near apartment buildings, business buildings and popular public spaces (nodes).

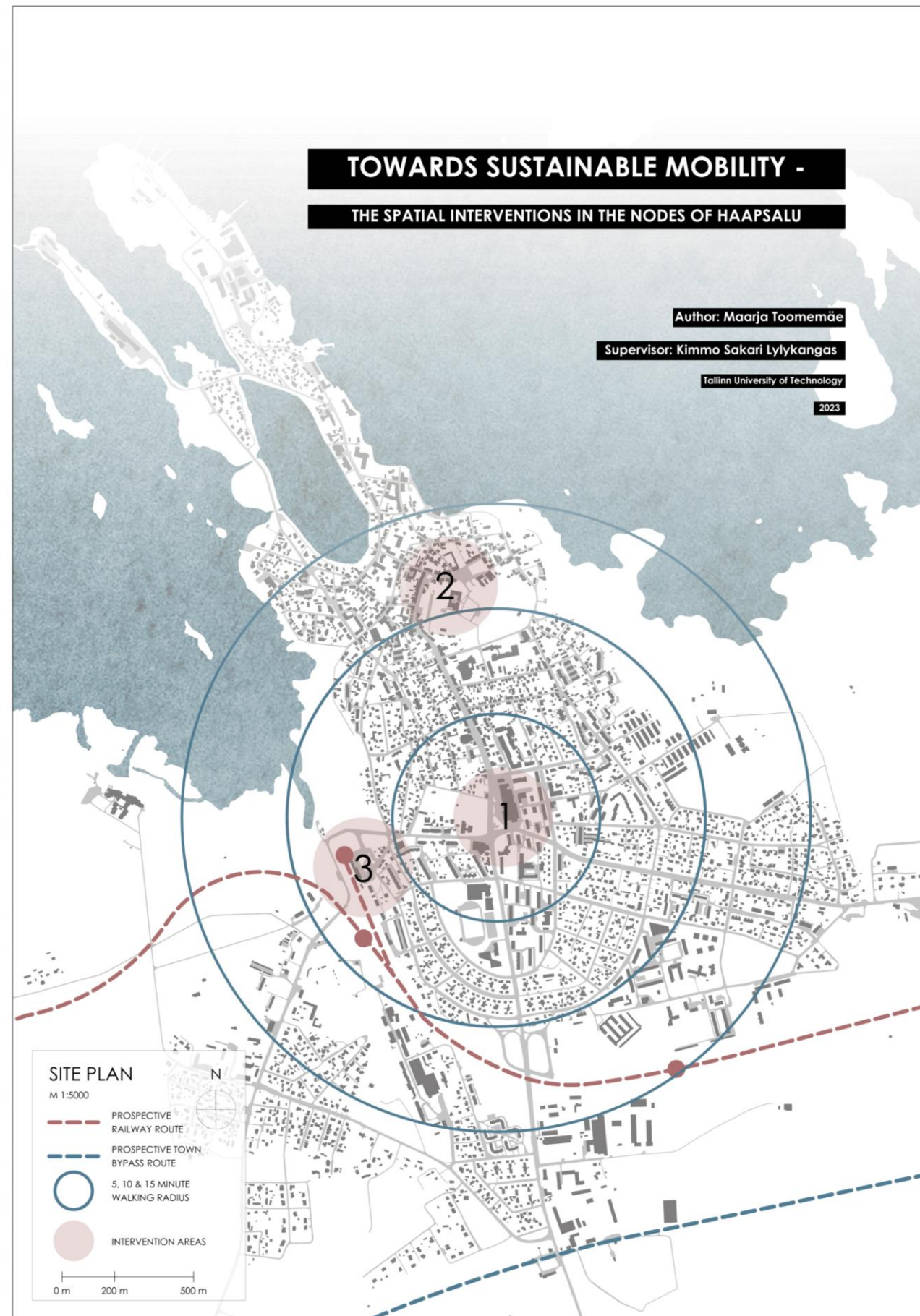
Currently, Haapsalu has not taxed parking. Yet, having a tax on parking could reduce many problems regarding the overflow of cars in the high season and at the time of big events. Having a tax or a time limit for parking would encourage people to rethink their choice of vehicle and think of alternative solutions. The tax gathered from parking would be used to make the infrastructure better for pedestrians and cyclists.

The long-term decisions of planning a town should be carried from the principles of densifying the town center, connecting the pedestrian and cycling networks, data-based planning, integrating different solutions and enforcing MaaS systems.

The mobility and sustainability of Haapsalu could also benefit from a location-specific household budget survey and a systematic analysis and action plan of mobility infrastructure. The analysis should point out in which locations around the town it would be necessary to improve the sidewalks, organization of intersections/crossroads, add separated cycling roads, bicycle houses and so on.

GRAPHICAL MATERIAL

Panels in reduced scale. Original panel size 700x1000 mm.



INTERVENTION 1. BUSINESS NODE

The first intervention area could most likely be described as the busiest place in town since it lies at the intersection of the most important roads and streets of the town - the Posti street connecting the old town, Tallinn Road and Joona street which are the main east-west arteries for going through the town; and the Uhula road which is directed towards south, the towns of Uhula and Pärnu.

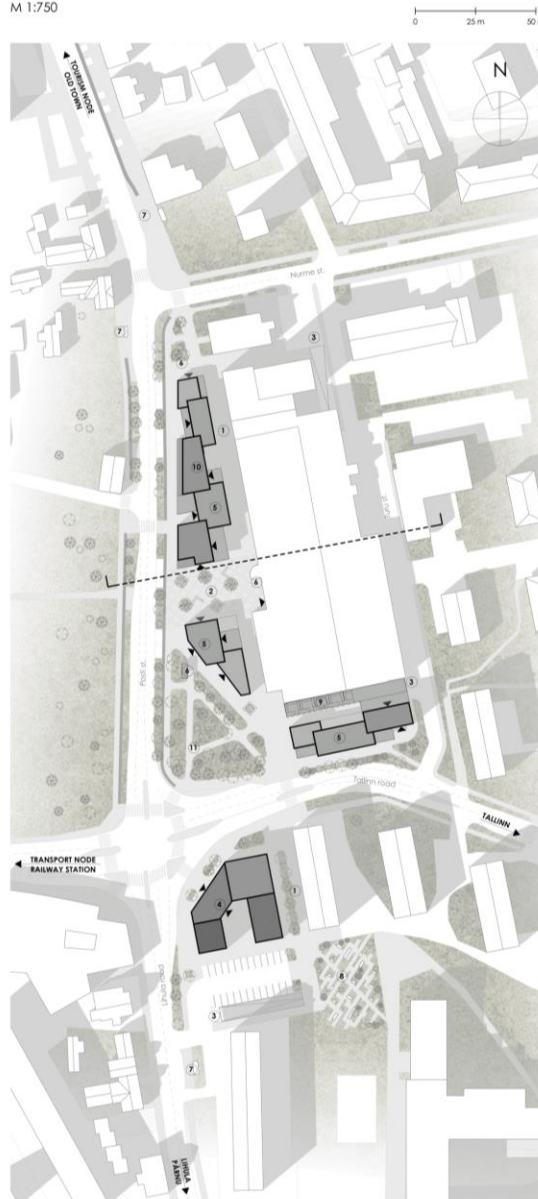
The most dominant building in the intersection is a shopping center built in the nineties. The center has been built with an "American shopping mall" concept where the large parking area is placed next to the street and the building itself taken further away from it. The shopping mall volume is in contrast with the historic town structure and cityscape that consists of much smaller units along the narrow streets.

The intervention concept of this area deals with the uncertain areas in front of the big shopping mall as well as the area on the other side of Tallinn Road that lies in front of a soviet time business building which is in poor state. The design of the area envisions demolishing the mentioned business building as well as a small volume of the large shopping center that breaks up the public space on ground with its slope to the underground.

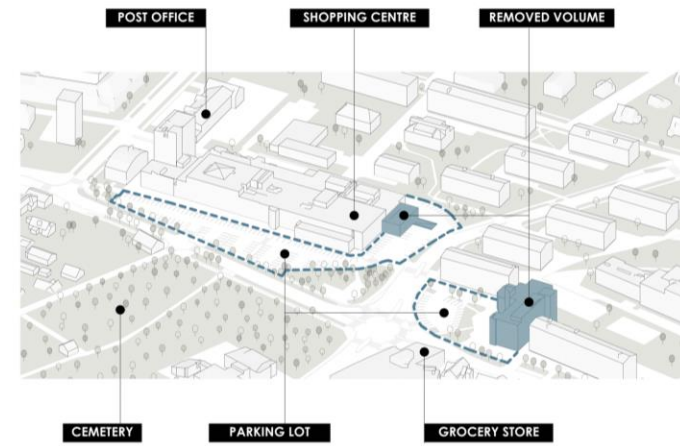
The business node is the area of the biggest spatial intervention. New volumes with different heights reaching up to three storeys are proposed along Posti street and Tallinn Road where they define the streetline as well as create a smooth transition between the out-of-scale shopping center building and historical cityscape of smaller volumes.

Existing parking spots: 140
Designed parking spots: 193
Added gross floor area: 7840 m²

SITE PLAN M 1:750



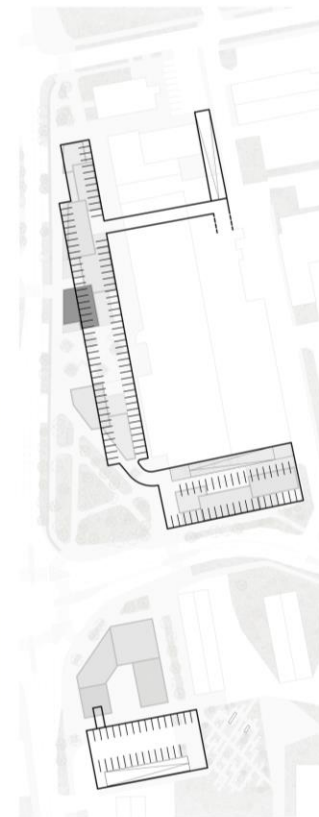
EXISTING SITUATION



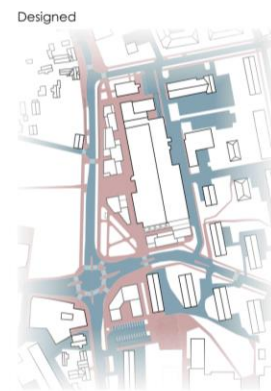
LAND USE

- ① Pedestrian street
- ② Square
- ③ Underground parking entrance
- ④ Business building
- ⑤ Mixed use building (residential/business)
- ⑥ Bicycle parking
- ⑦ Bus stop
- ⑧ Community garden
- ⑨ Leisure terraces
- ⑩ Passage
- ⑪ Reconstructed park
- ▲ Entrance

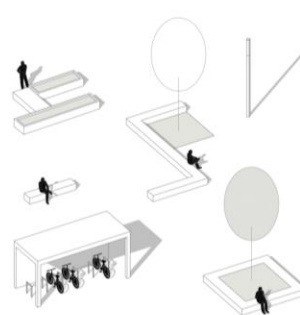
-1 FLOOR M 1:750



LAND USE Current

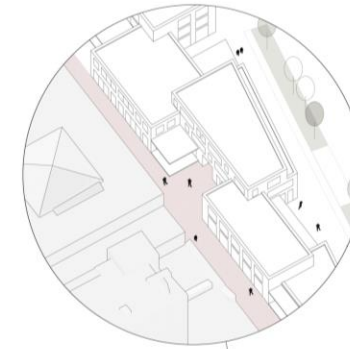


STREET FURNITURE



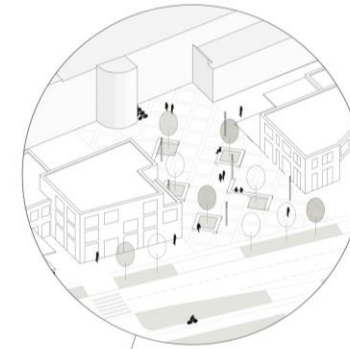
PEDESTRIAN STREET

The space between the new buildings and the existing shopping center is possible to take into use as a pedestrian street.



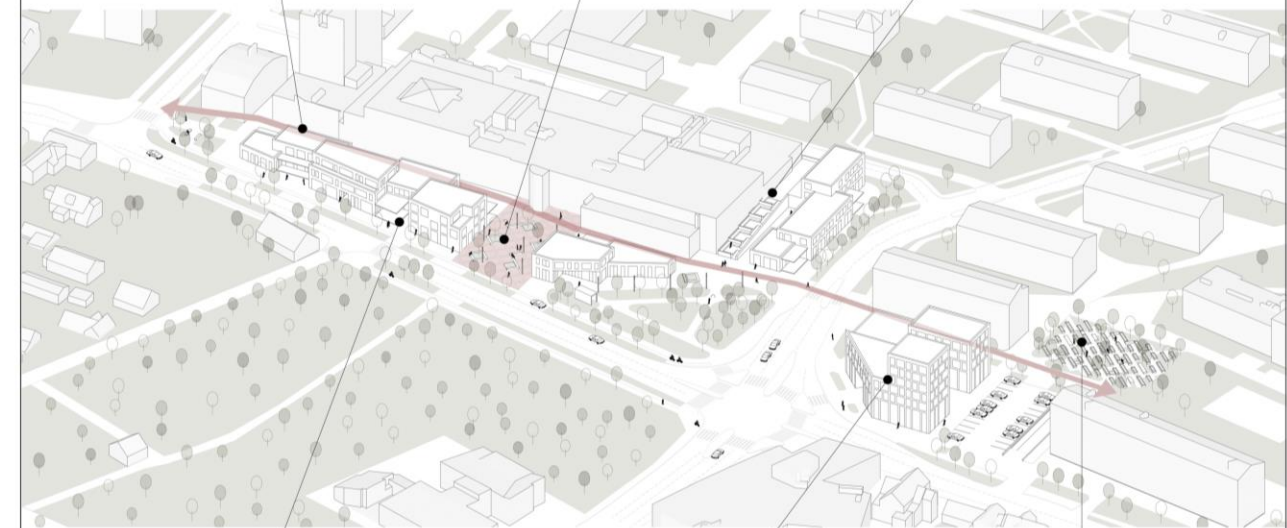
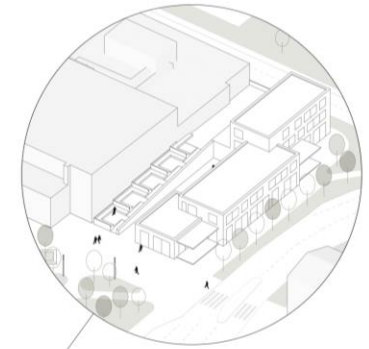
URBAN SQUARE

The pedestrian street is articulated with an urban square in front of the main entrance of the existing shopping centre.



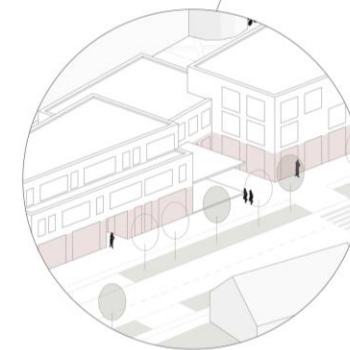
RECREATIONAL TERRACES

A new slope is proposed along the short side of the shopping mall to provide access to the underground parking lot. The slope is covered with recreational terraces for having a small break.



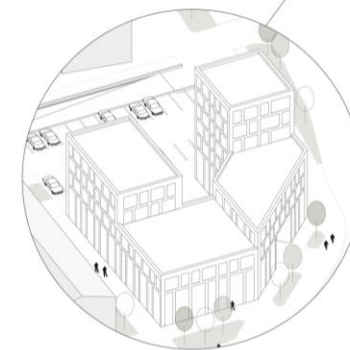
ACTIVE FACADES

The new pedestrian oriented public spaces allow people to interact with the buildings - have inviting windows or café terraces, expand the life outside of the building.



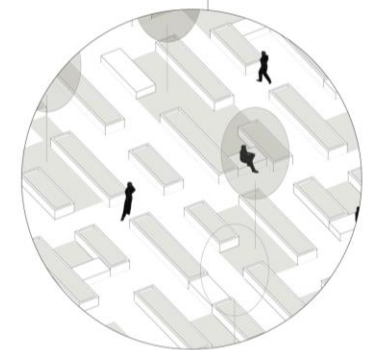
BUSINESS BUILDING

The new business building at the corner of Tallinn Road and Uhula Road proposes a more dominant volume with a tower up to seven storeys.

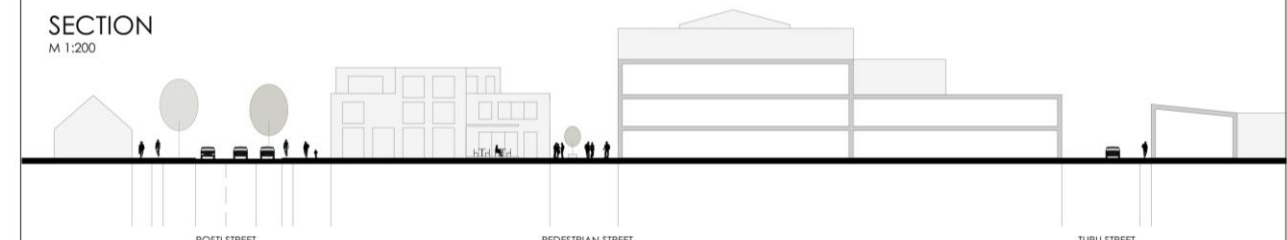


COMMUNITY GARDEN

The axis of the pedestrian street continues along to the other side of the road where a new community garden is proposed at the end of it.



SECTION M 1:200



INTERVENTION 2. TOURISM NODE

The second intervention area is a tourist hotspot around the summer season - the center of the old town - Lospilats square. In medieval times, the square was used as a marketplace, but currently the square is used as a car park. The pedestrians are forced to the edges of the square on narrow sidewalks. There are many attractions, cafes, and museums around the square which makes it a popular place during the summer but during the low season, there are hardly any people around it.

The intervention area has potential to be a fully functioning urban square and area for people, not vehicles. The street network around the square consists mostly of narrow one-way streets. During the summer the street leading to the square - Kaia street - is closed for cars and used as a pedestrian street with multiple cafe terraces. There is an ongoing competition for finding a solution for a new municipality building at the Lospilats square that will offer a reason for locals to visit the old town during the low season as well.

The design proposal of the node suggests a functional urban square and takes into account the natural movement of people. The walking direction from Kaia street towards Jaani street acts as a divider of two areas - the formal square and the more relaxed pavilion area. Whereas there are many important directions from the square, the square is oriented towards the war monument and flags and the square itself framed with streetlights, benches and trees.

Existing parking spots around the square: 140
Recently built parking spots on the other side of the castle (250-300 m): +74
Designed parking spots around the square for short stops and disabled: 18

LAND USE

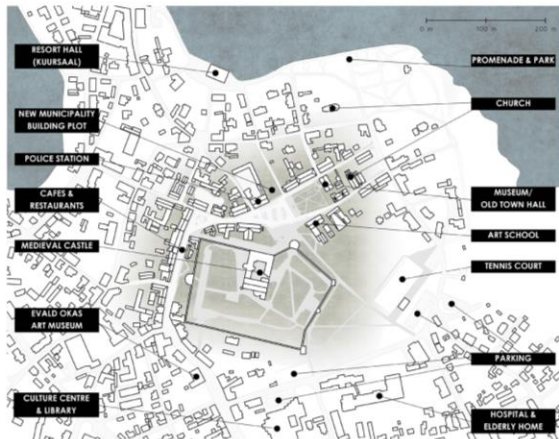
- Pedestrian
- Car

Current



NEARBY ESTABLISHMENTS

M 1:3000

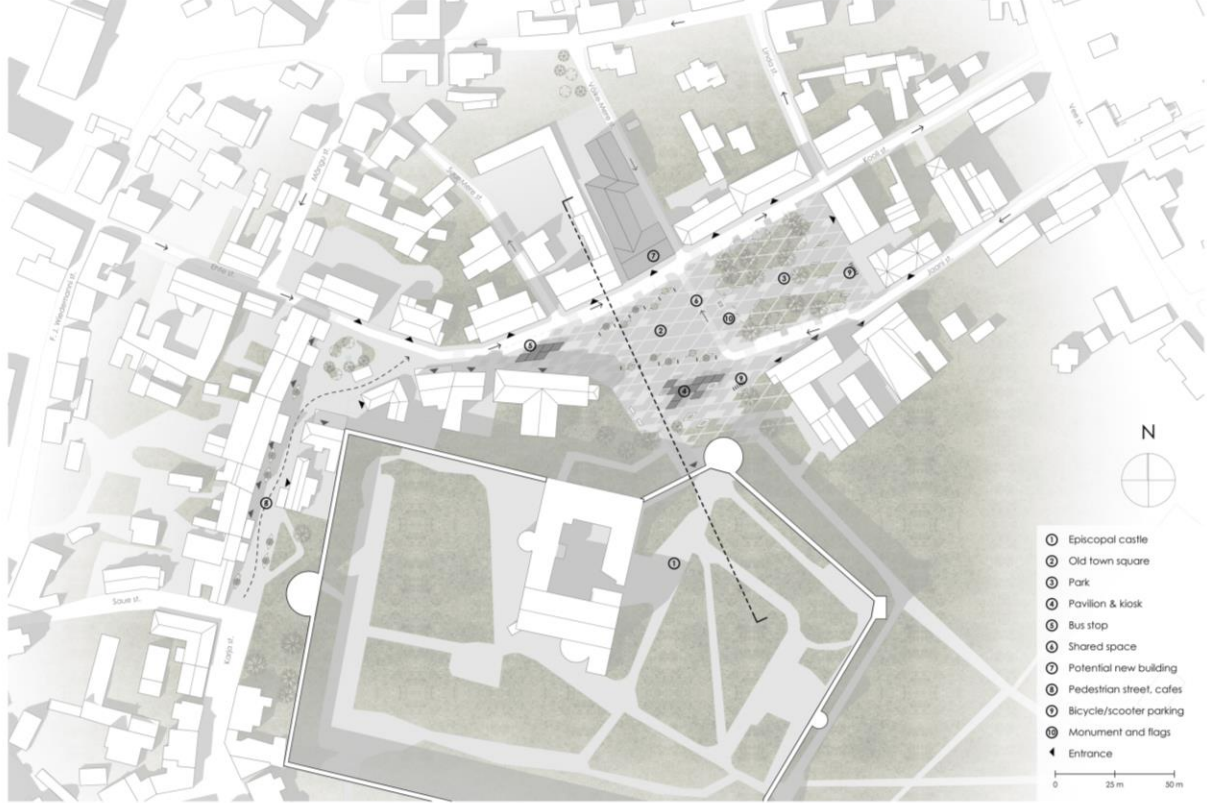


Designed



SITE PLAN

M 1:750



- ① Episcopal castle
- ② Old town square
- ③ Park
- ④ Pavilion & kiosk
- ⑤ Bus stop
- ⑥ Shared space
- ⑦ Potential new building
- ⑧ Pedestrian street, cafes
- ⑨ Bicycle/scooter parking
- ⑩ Monument and flags
- ⑪ Entrance

0 25 m 50 m

SHARED STREET

The design proposes Kaia street as a shared street from the Soue street - the passage for motorized vehicles is not closed entirely but the priority is given to pedestrians.



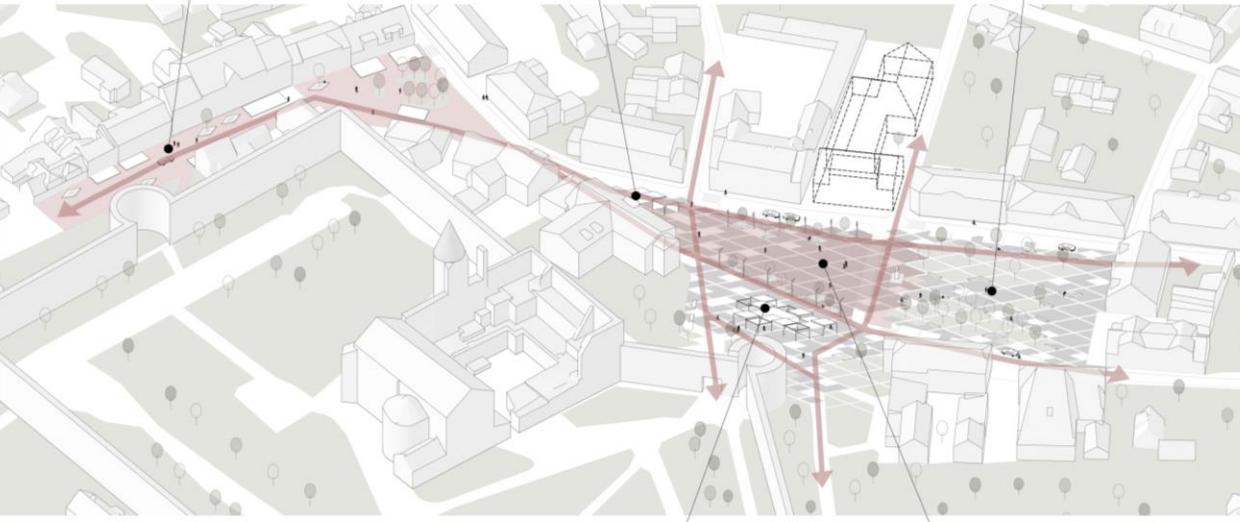
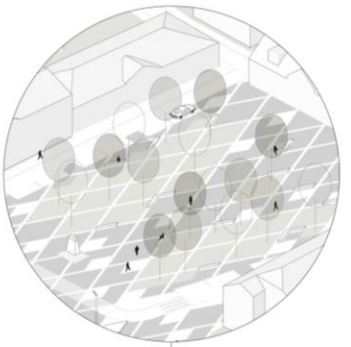
BUS STOP

The pavilion serves as a stop for the town bus but could also be used for drop-offs, pick-ups and for tourist bus stop. The bus pavilion is large enough to offer a covered parking spot for bicycles and scooters.

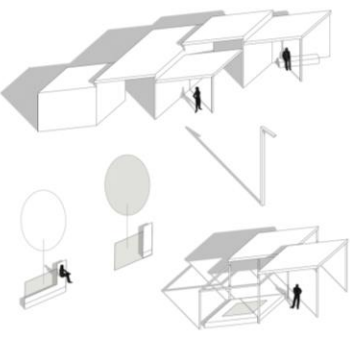


PARK

The new design for the park considers the walking paths of people, uses the same street furniture elements as around the square and offers multiple options for resting in the shade in summer.

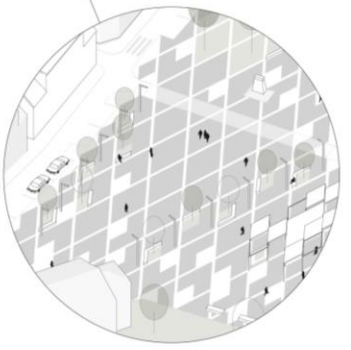


STREET FURNITURE



PAVILION AND CAFE

The pavilion offers a place for stopping and resting in the shade and the rooms integrated to the pavilion could function as a cafe, an ice-cream kiosk or even a tourist information center or public toilet.

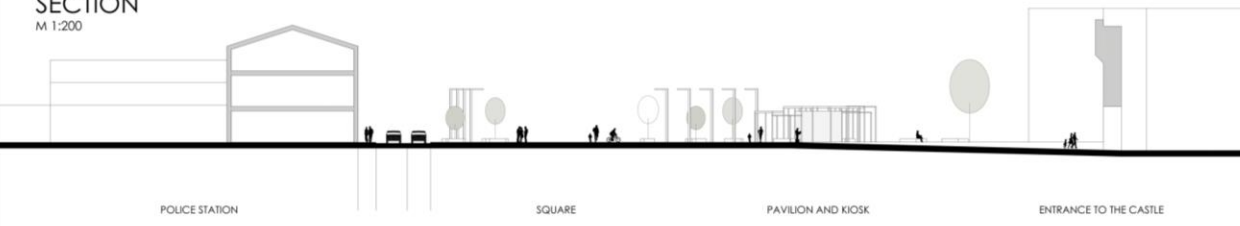


SQUARE

The formal square is oriented towards the war monument and flags. The square itself is framed with streetlights, benches and trees.

SECTION

M 1:200



INTERVENTION 3. TRANSPORT NODE

The third intervention area - the transport node does not encounter too much traffic at the moment. The station building is popular for pictures and filming but not for too much else. The station area serves as the region's largest bus station and a railway museum, but the museum is not too popular among tourists and the bus station is not in too much use since the locals usually get on and off the bus on other stops nearer to the town center or residential areas. Still, when the railway connection between Haapsalu, Tallinn and perhaps even Rõhuküla harbor will be reconstructed and the railway museum expands its exhibit, the area will serve as an important node of the town.

The area in front of the train station could be described as undefined - an island of greenery between fields of asphalt where the traffic organization is uncertain. The pedestrian connections and crossings of the area are not well connected to the rest of the town. Whereas the design of the public space around the train station is important when the train connection is restored, the area still could use better defining in case it is not and the area functions just as a bus station and museum.

The design proposal for the transport node suggests defining specific areas for different modes of transport. The different bus stops are equipped with pavilions that provide shelter for people as well as for the micro-mobility vehicles like scooters or bicycles when necessary. The area in front of the railway station is divided into three segments - the park, the bus station and the square, all of which have a slightly different character.

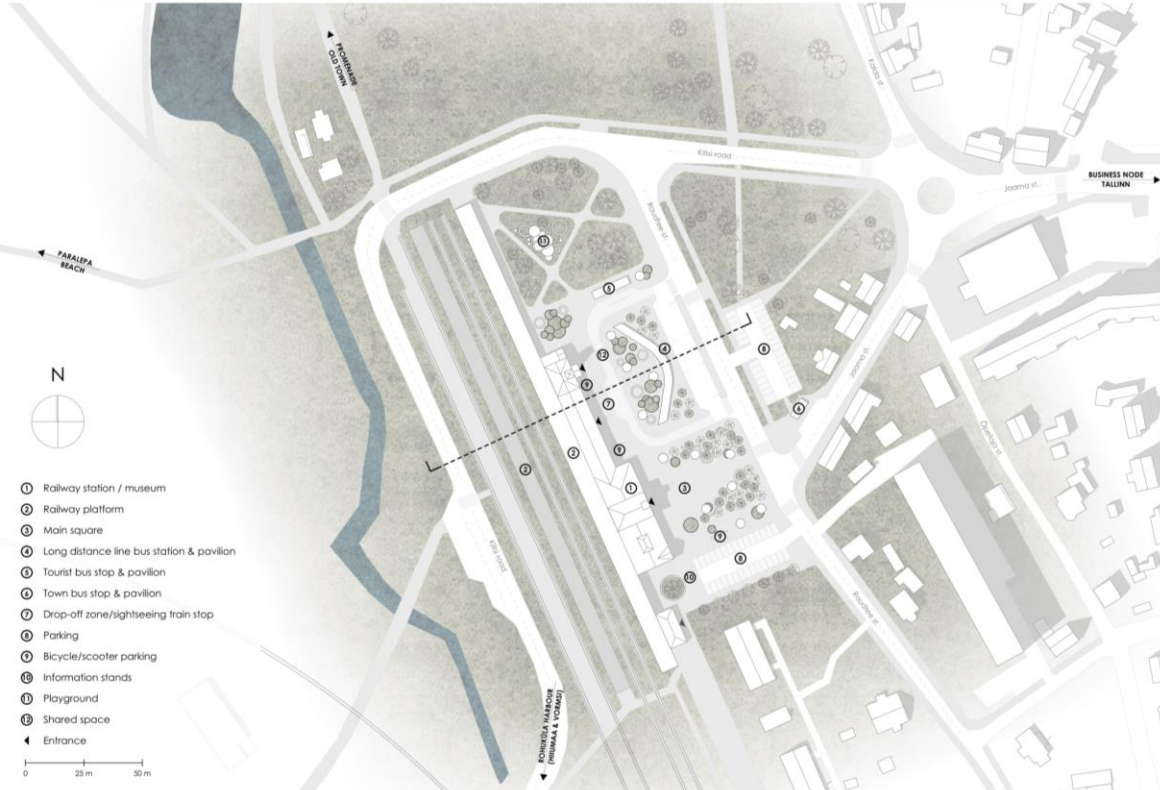
LAND USE

Current



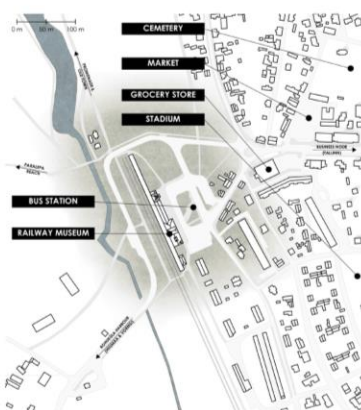
SITE PLAN

M 1:750

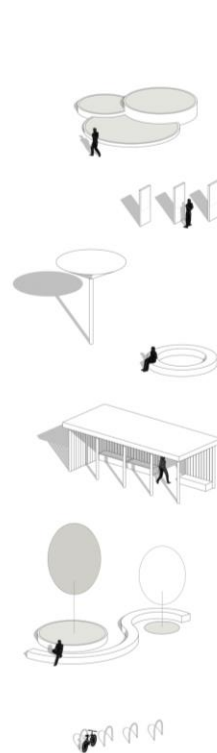


NEARBY ESTABLISHMENTS

M 1:3000

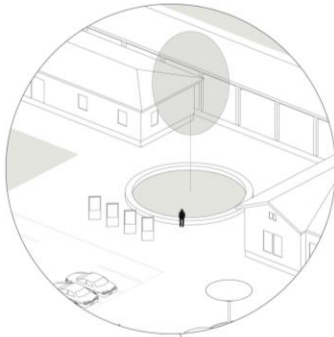


STREET FURNITURE



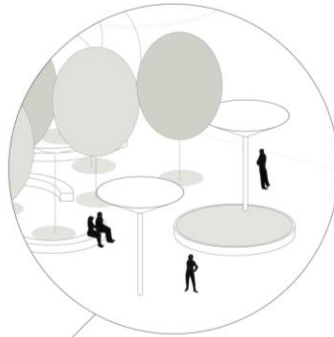
INFORMATION STANDS

Information about timetables, directions, sights and things to do



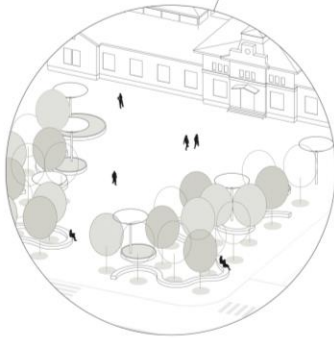
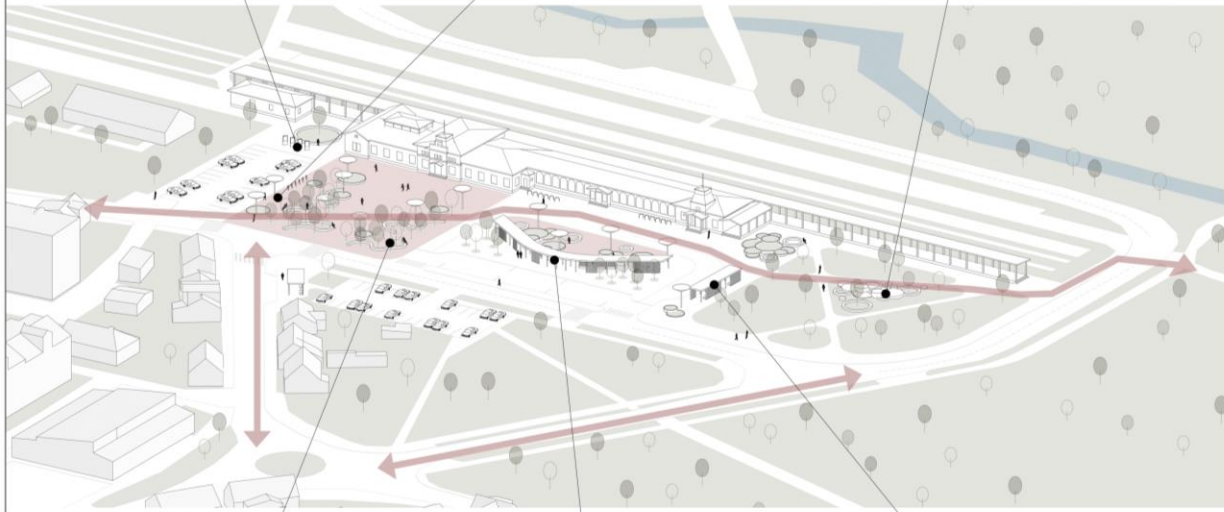
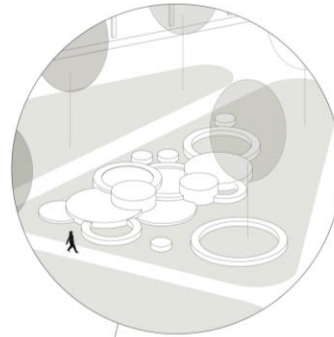
STREET LIGHTS/PARASOLS

Multifunctional street furniture that offers shade during the day and lighting when it gets dark. Possible to use for rainwater collection.



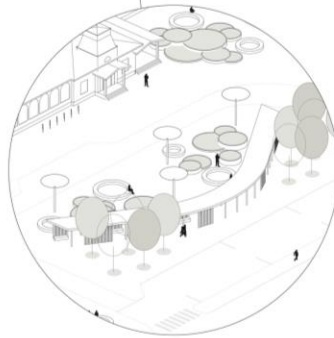
PLAYGROUND

New attraction in the currently underused park.



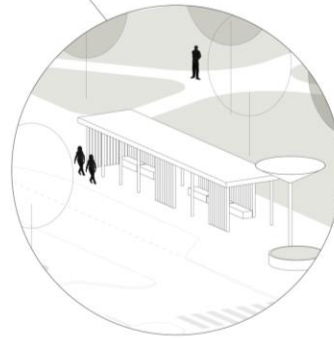
GREEN SQUARE

Formal and defined urban square in front of the main entrance of the railway station. The area allows to entertain different events and parades. The square is defined with symmetrical groups of trees that allow the square to continue under them.



LONG-LINE BUS STATION

A long, covered position between the railway station and long-line bus station. The long-line bus station is designed to accommodate six full-length buses and eliminates the need for buses to reverse. The areas around the pavilion offer shade, trees and places for rest.



TOURIST BUS STATION

Separated location for tourism buses situated at the edge of the park.

SECTION

M 1:200

