

Building a Social Community

Location Analysis



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SITE ANALYSIS | BUILDING A SOCIAL COMMUNITY

Delft University of Technology
MSc Architecture, Urbanism and Building Sciences
MSc3 Dwelling Graduation Studio 2019 / 2020
AR3AD133 Designing for Care in an Inclusive Environment

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30-12-2019

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INTRODUCTION

For this graduation thesis four locations were provided to choose from. It was also a possibility to propose our own location. The four locations offered are Hilversum , Geldermalsen, Leiden and Harderwijk.

The choice of location for the design is mainly based on the fact that loneliness is a more pronounced problem in urban areas . Loneliness is substantially higher in cities such as Rotterdam, The Hague and Amsterdam then more rural areas. But also more low density provinces such as Zeeland and Limburg suffer from loneliness more extensively then other regions within the Netherlands. This suggests that not only urban regions promote loneliness but real low density areas do so too. Still this research will focus more on an urban region as here the most severe loneliness in the Netherlands is felt. Leiden is therefore the location that has been chosen as the design site for this research. From the given locations Leiden is the most urban setting.

ASSIGNMENT

The assignment is to design an inclusive care environment for elderly on this site. This design should address a certain topic, which in this case is loneliness and especially spontaneous social interaction.

STRUCTURE

The location analysis will be structured similarly to the research. Touching upon every theme of the research with the exception of the theme "social interaction" because this is a descriptive theme about social interaction itself and thus not measurable on a location. These themes will be analysed by the use of data portrait in diagrams or by the use of maps as well as descriptive text and photographs.

Next to these themes also general information about the size of the site as well as the qualities of the site will be analysed. All information gathered on these topics as well as certain findings can be presented and be used as guidelines for the design of the plan.

1 THE LOCATION



Figure 1. The existing building on the plot (Own image)

1.1 LOCATION WITHIN THE CITY

The location is near the centre of the Dutch city Leiden. The site is positioned in the centre of the neighbourhood Vreewijk which is part of the Bos- en Gasthuisdistrict. On the western side of the location it is separated from the city centre by water and on the eastern side it is cut off from the rest of the Bos- en Gasthuisdistrict by a railroad.

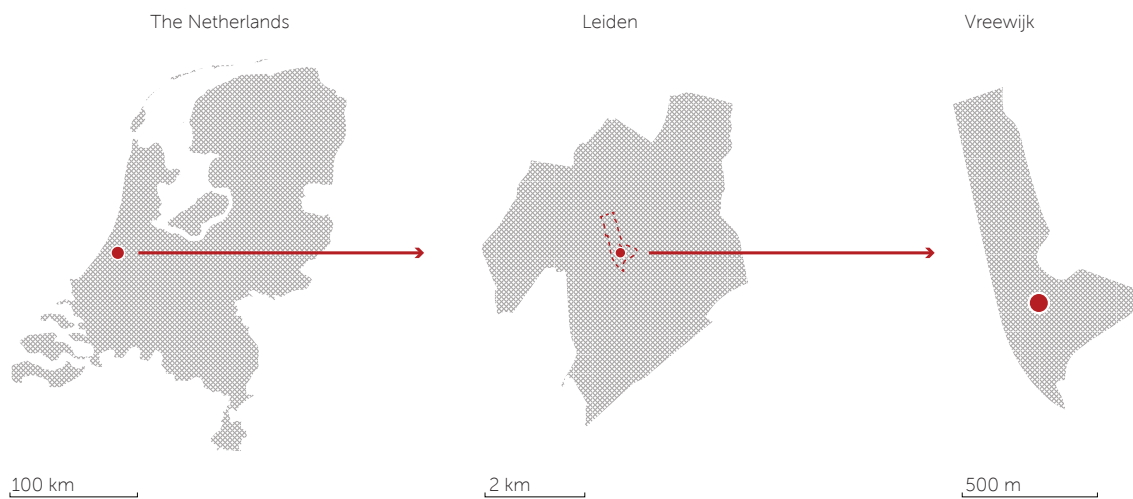
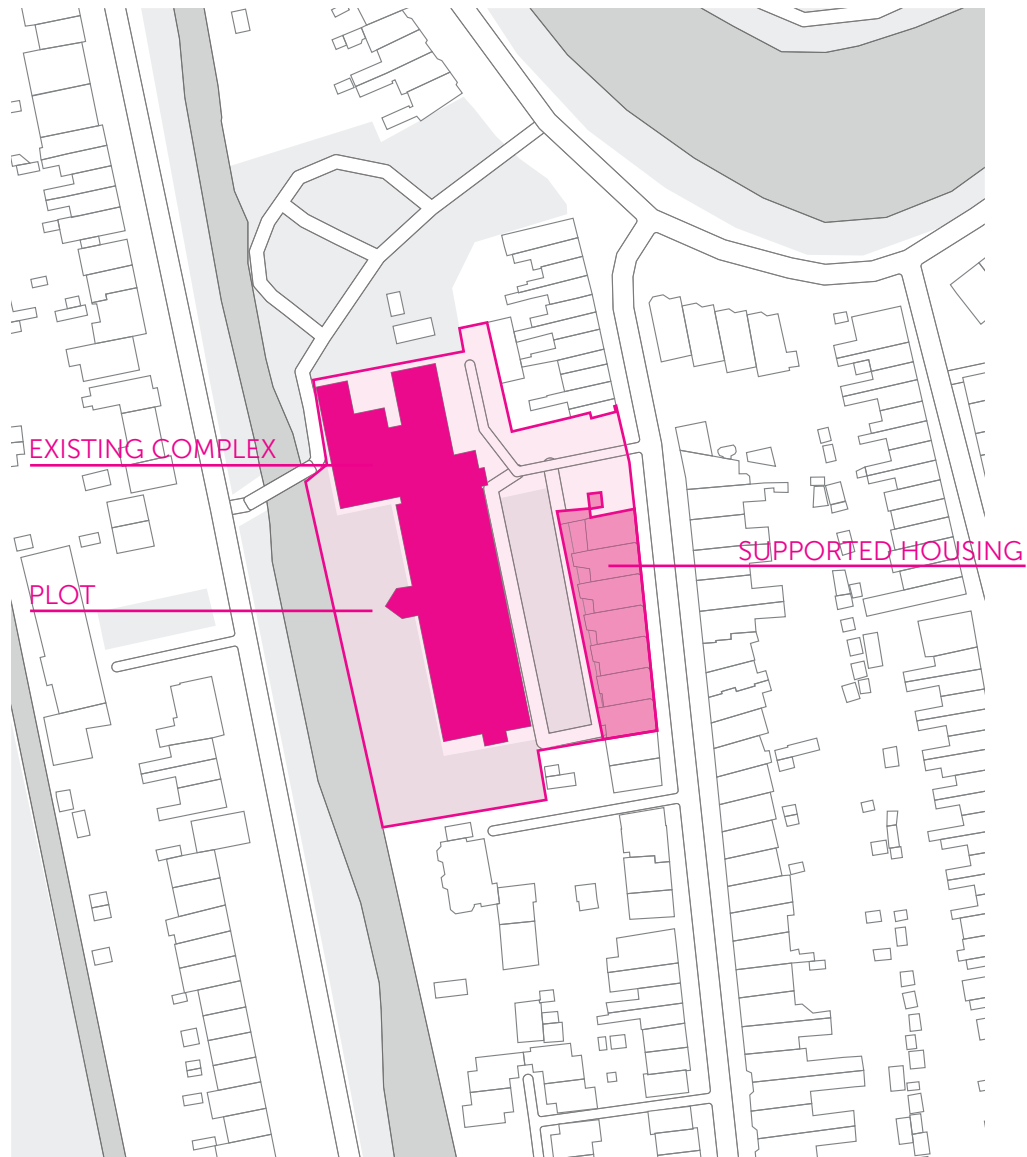


Figure 2. Location within the Netherlands, within Leiden and within the Neighbourhood (Own image)

Figure 3. Map of the location with its most important characteristics, scale 1:1500 (Own image)



1.2 SITE DESCRIPTION

Currently there is an existing building on the site. This building from 1956 once functioned as an elderly complex but now serves as a vacant building. Adjacent to the building, supported housing is situated which is in contrast to the main building, still in use. It is possible to demolish the main building as well as the supported housing. The latter as said is still in use and therefore there should be good arguments why this has to be demolished.

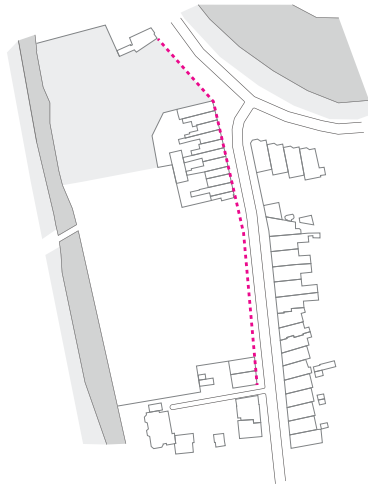
2 GENERAL SITE ANALYSIS



Figure 4. The existing building on the plot (Own image)

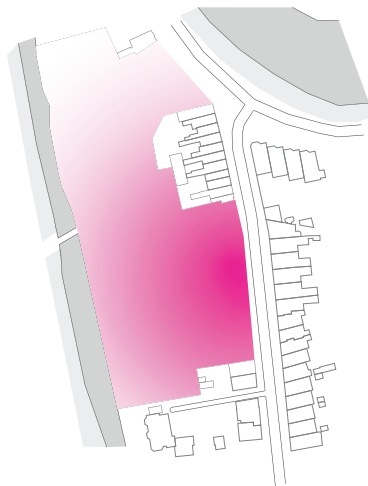
2.1 GENERAL FINDINGS OF THE LOCATION

BUILDING LINES



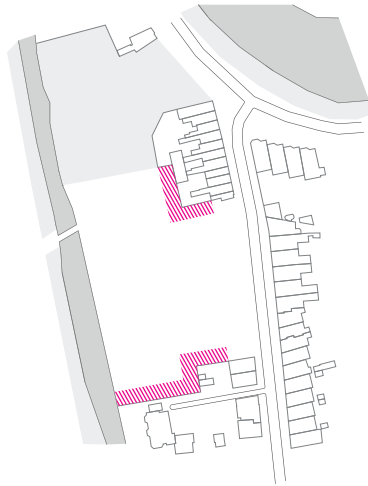
The building line at the west side of the plot should be maintained to not confuse the street. If this line is not maintained the street will lose its quality.

DENSITY GRADIENT



When analysing the plot the most striking is its weird position within the urban fabric. It is not truly adjacent to the street but also not separated from it. This means there is no uniformity in the building density that should occur. A gradual change from dense to not dense from the street to the park and water body should provide a natural transition.

USELESS ZONES



The plot lies between existing buildings but also extends behind those buildings. Here the back gardens of these buildings are marked by fences. When building near to these fences the quality and privacy of those gardens is diminished. To prevent this the zones in which this would occur are marked as "no building zones". When designing these zones should be tried to keep clear from buildings.

BUILDING HEIGHT



The building height of the existing buildings mostly is situated between two levels and three levels. The facing façades also have a height of three levels. To not disrupt and unbalance the street the height of the new building will be kept mostly within this range. This finding is parallel to the finding about social control which recommends a building height of three levels (see research booklet).

3 IDENTITY



Figure 5. Former University buildings now converted to dwellings (Own image)

A place always has an identity. This can be the qualities of the location, the flaws of the location or the people who live there. This identity can be a guideline to follow or something to react on. To know what the identity of the location is, it is of importance to position the neighbourhood within the city of Leiden. What is the niche of this neighbourhood according to the surroundings and also what is the position of the neighbourhood according to other neighbourhoods. This topic can prevent interventions and the implementation of functions that would be misplaced on this location.

It is also important to be aware of the historical role of the location and its surroundings. Therefore a short historical analysis is done, focussed on the architecture of the neighbourhood and certain effects this might have on the design.

3.1 HISTORICAL IDENTITY

The neighbourhood is one of the first extensions of the city outside of the city canal. The architecture of this part of the city is just from before 1900. This means that the neighbourhood was not particularly designed with automobile traffic in mind. The overall impression of the neighbourhood is dominated by narrow green streets with highly detailed façades of mostly three level high dwellings. Because the car has made his entry into our society over time the narrow streets are now fully packed with parked cars. This can lead to the obstruction of the sidewalk as cars park almost on it. The parking also has reduced the sidewalks to about a meter in width.

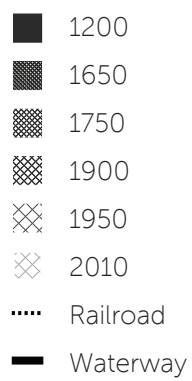
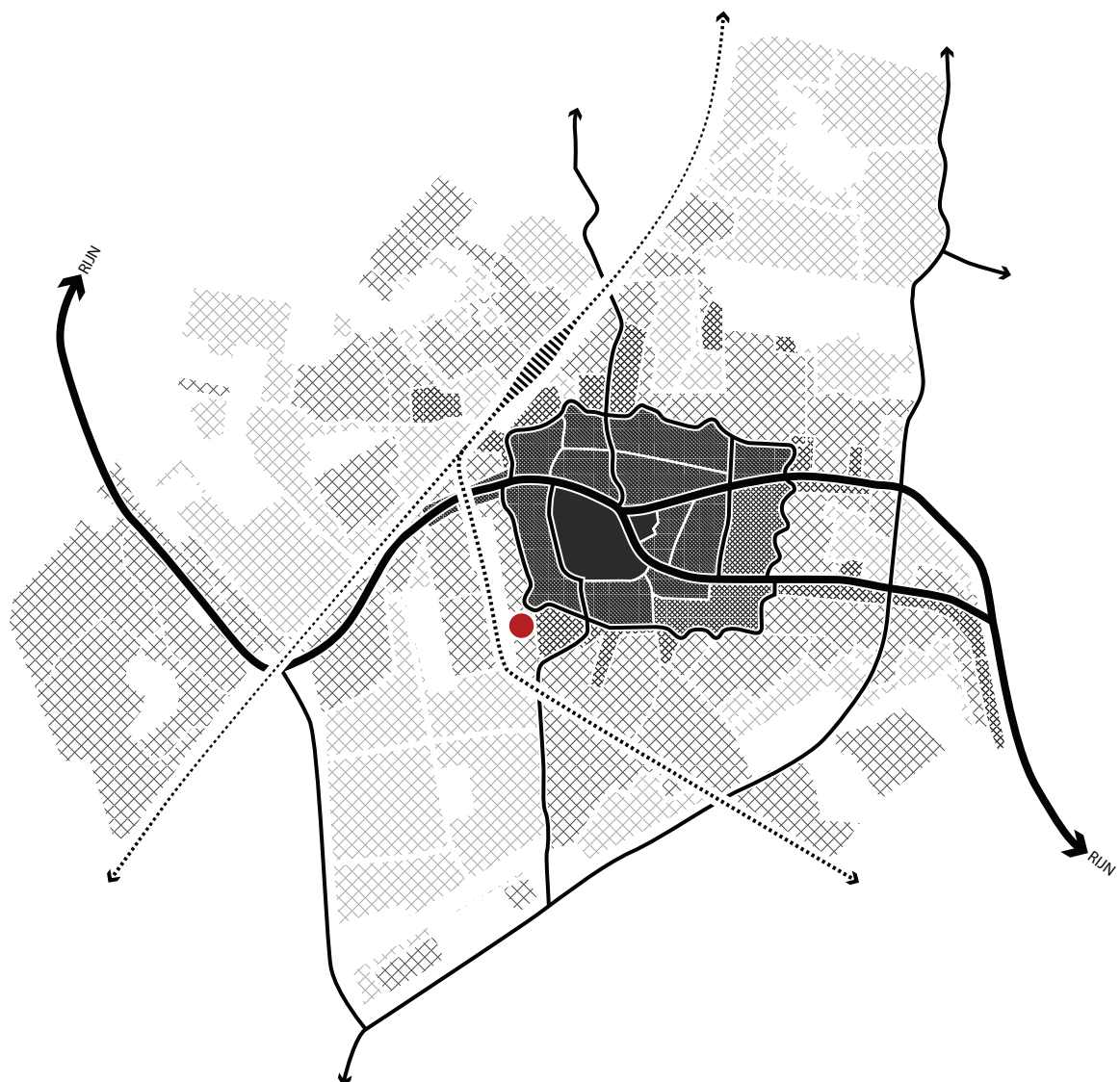


Figure 6. Building years of neighbourhoods in Leiden (Own image based on Rutte & Abrahamse, 2013)

Figure 7. Map of Leiden with typical images of the characteristics of its neighbourhoods (Own image)



3.2 CURRENT IDENTITY WITHIN LEIDEN

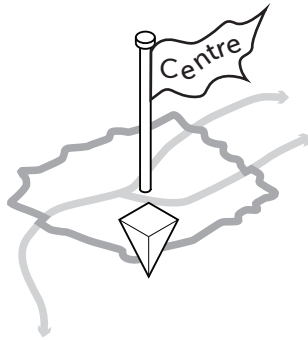
Leiden consists of multiple districts. These districts have particular identities according to their most common architecture and typologies. These districts are portrait in an abstract plan of Leiden with photographs of typical architecture and typologies (figure 7). What is most noticeable about this abstract representation of the districts of Leiden is that North of the old city centre, there are modern extensions with row houses, while on the southern part, the part of our location, there are more pre war and post war extensions. These consist of Tuindorpen and apartment flats.

Figure 8. Map of the neighbourhood Vreewijk typical images of the characteristics of its neighbourhoods (Own image)



While the site is located in a district with much post war apartment buildings, the part of the neighbourhood in which the location is situated is actually from an earlier period than the other buildings in the district. Next to this the neighbourhood is cut off from the district by a railroad, isolating it from other neighbourhoods. Because of this isolation it feels better connected and more part of the city centre. The neighbourhood has one particular function which almost covers a quarter of its surface. This function is that it houses the buildings of the University of Leiden and which makes Vreewijk popular with students. Another quarter of the neighbourhood is a park named "De Ruigte". This park consists of small walking paths through wild green and along water bodies. There are no other particular locations within the neighbourhood such as shopping streets or squares. Most of the neighbourhood consists of housing which is supported by the functions of the city centre. It is therefore also not wisely to build a "new centre" on the site with restaurants and shops as this would compete with the near city centre but on a smaller scale and on a less attractive site.

3.3 FINDINGS



Not a center

The location is not in the center of the city but just outside of it. It is situated in a quiet living neighborhood. Competing with the center and creating a new "hub" with functions that are already present in the center is not realistic and should be avoided.

4 SOCIAL NETWORK



Figure 9. View towards Witte Rozenstraat from the Witte Singel (Own image)

In this chapter the social network will be discussed. But how would this be analysed in a neighbourhood? Someone's social network consist of certain people, of which a lot live in our environment. It is therefore of importance to know the demographics of the neighbourhood. By analysing the demographics of Vreewijk compared to other area's possibilities can be revealed. These possibilities can range from certain functions that can be placed to certain typologies that should be implemented.

DEMOGRAPHICS

Below the demographic charts from the Netherlands but also from Vreewijk are visualized. What strikes the most is the high amount of people aged 15 - 25 years old. This can be the result of the nearby University. The area shows signs of students living here, such as can be seen on the photograph on the left. This can form an opportunity as provide activity on the streets during the day. Integration of students into the project would therefore be a logical step.

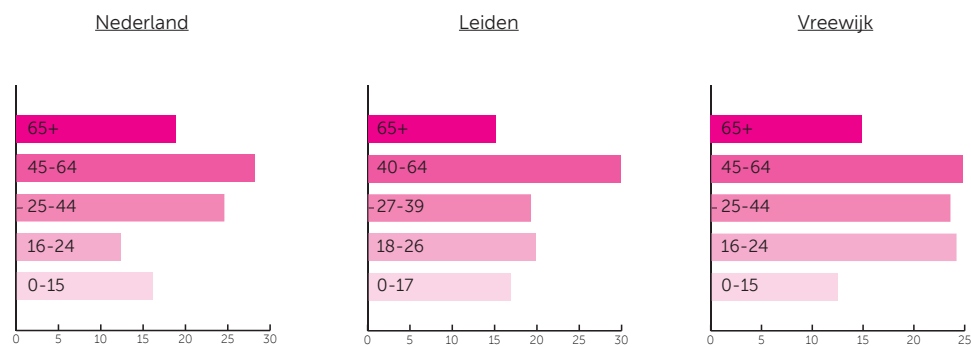
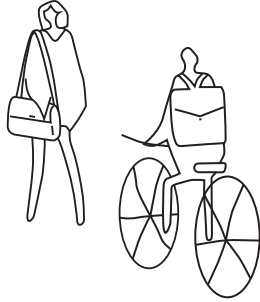


Figure 10. Demographics of the Netherlands, Leiden and Vreewijk (Own image)



Figure 11. Dwelling which houses a normal family on the left and students on the right which is visible by the dirt on the facade (Own image)

4.1 FINDINGS



Integrate students

Integrate students so that it already becomes part of the rest of the neighborhood.

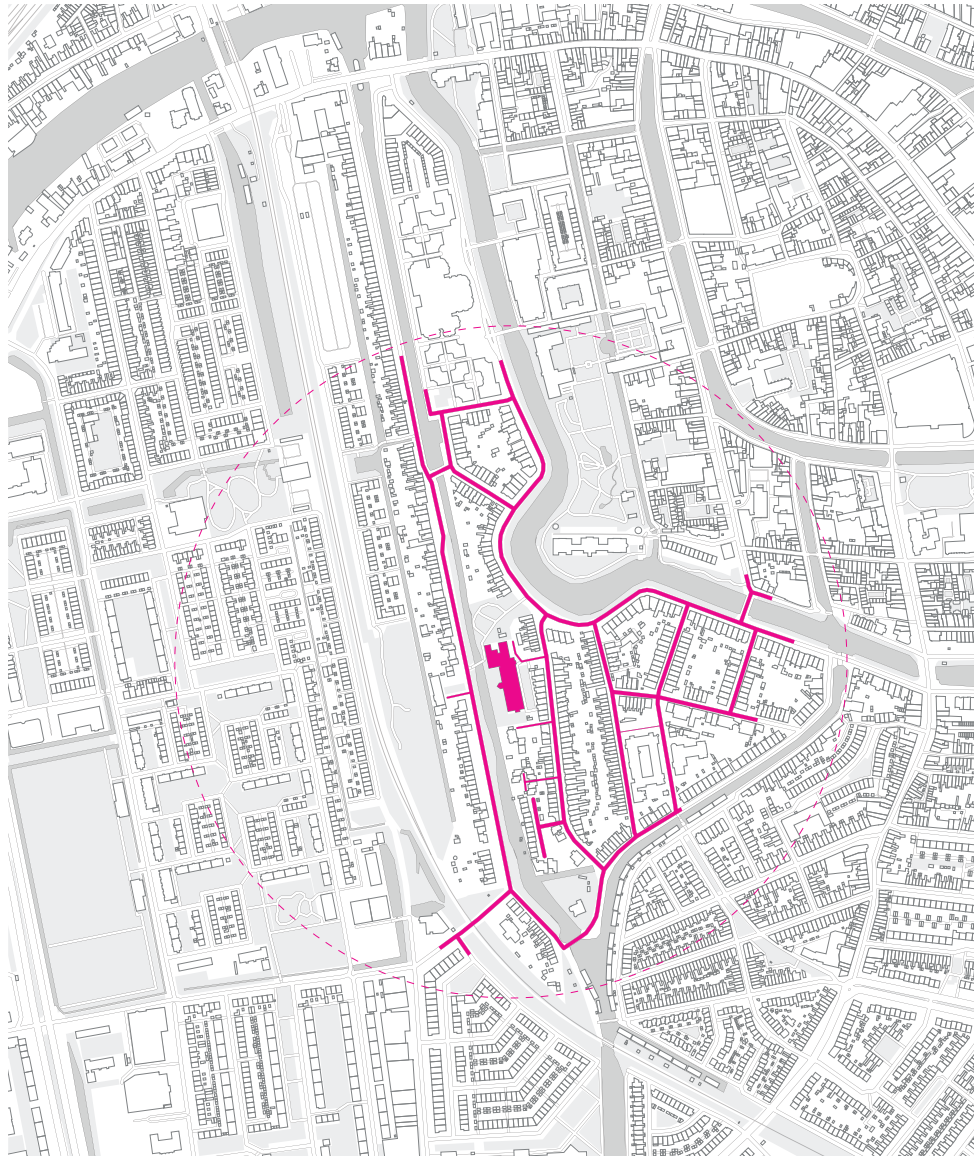
5 SOCIAL RANGE



Figure 12. Obstruction of a side walk in the neighbourhood (Own image)

The social range provides a location in which to act. Outside of this location most elderly will not or rarely come and therefore interventions will not be very effective. First the range where they will come is portrayed and secondly the boundaries that restrict this range will be discussed as well as the opportunities to break through these boundaries are proposed. At last also the primary functions within this range are analysed.

Figure 13. Map of a 400m range and striped a circle with a radius of 400m, scale 1:4500 (Own image)

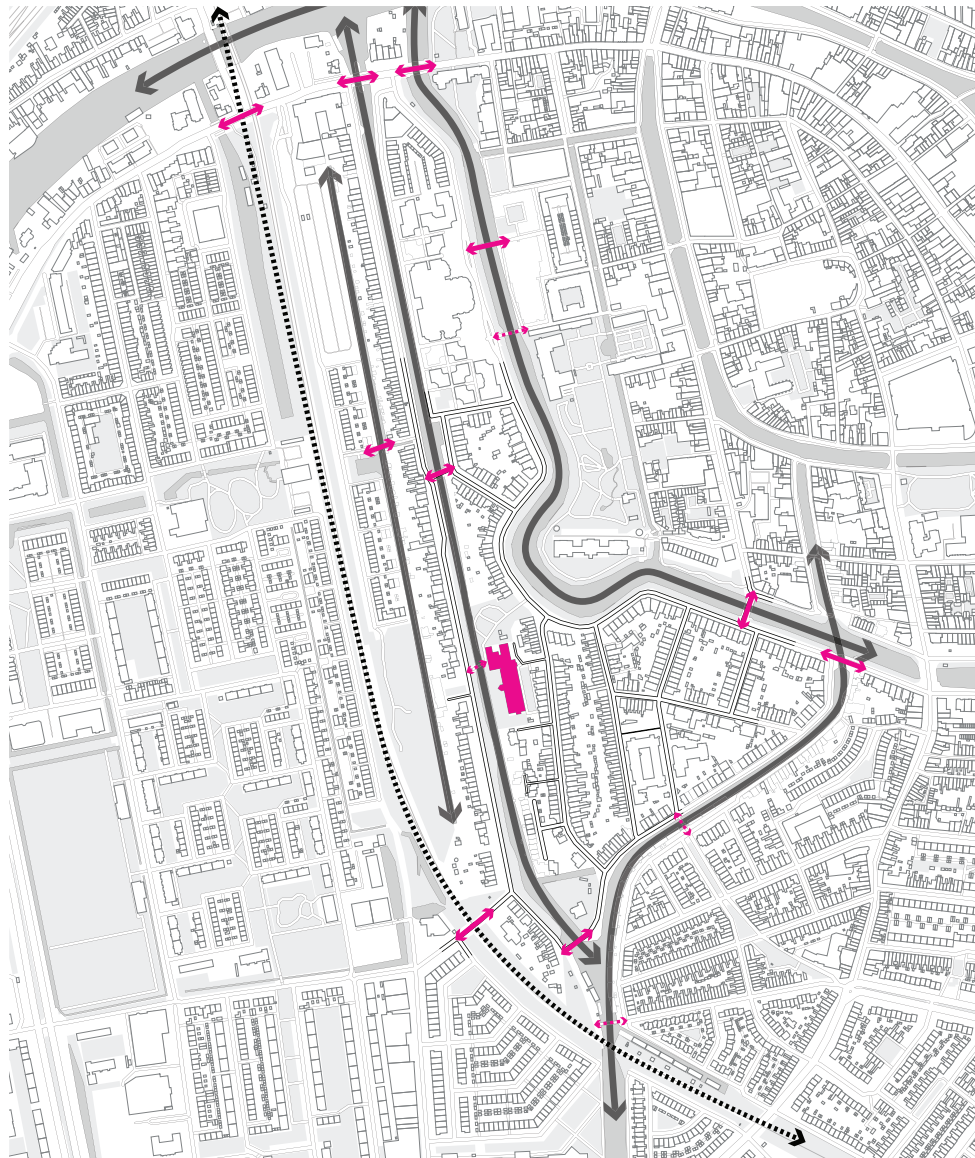


5.1 RANGE

The range in which elderly can wander comfortably physically determines what functions they use and what places they visit. From literature and the fieldwork this range is set to a maximum of 400 meters. This is of course a general range and elderly with better physical capabilities will go further but for the majority, 400 meter will determine their range. Next to elderly that are physically fine there are also elderly that suffer with physical problems. These people will likely not reach as far as 400 meter and functions should be positioned closer for them to make use of it.

So where are elderly able to go starting from the location. Figure 13 shows the range of elderly. The measurements are determined by following the lengths of the streets and not as the crow flies. Therefore the map shows a clear representation of the area they will make use of. From this map certain conclusions can be made, such as for example that the city centre is hard to reach.

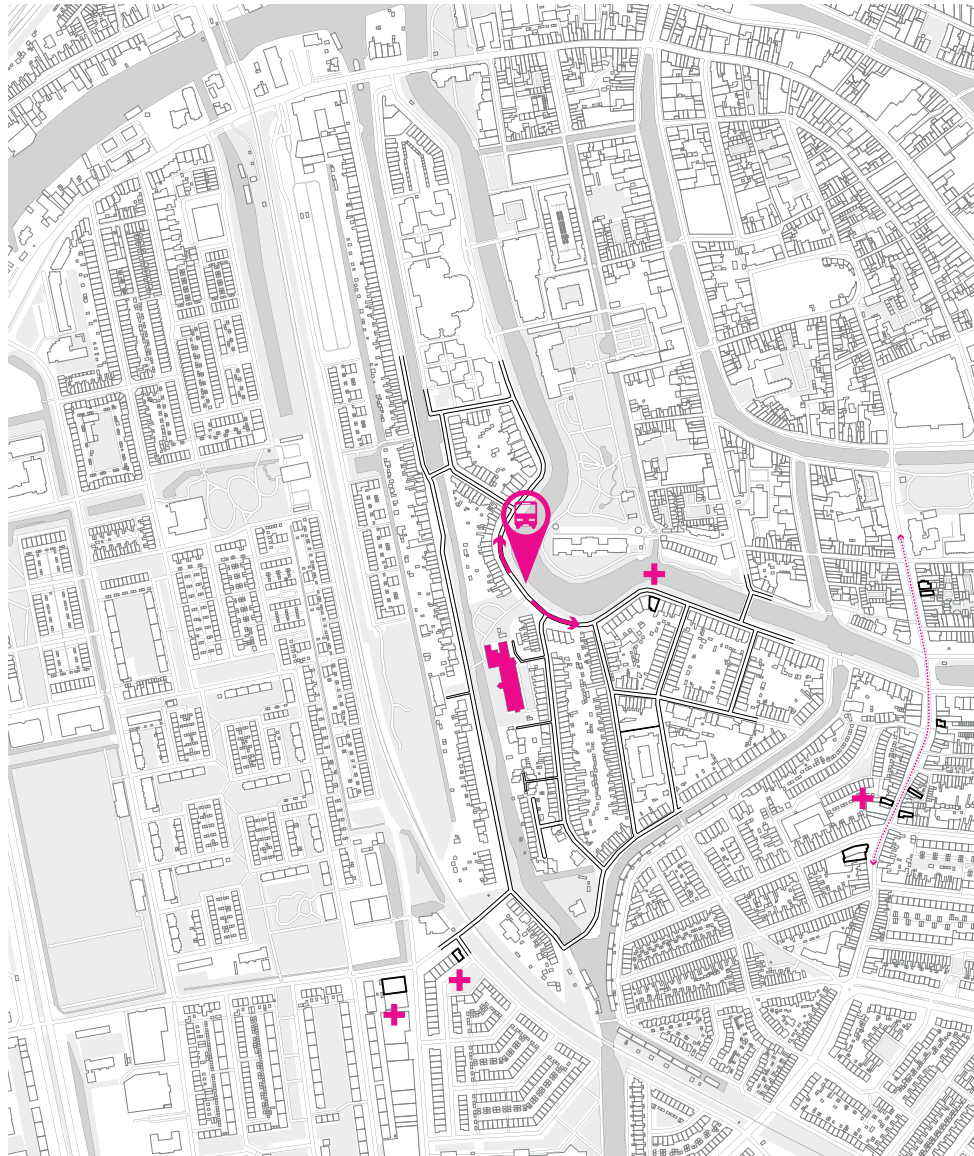
Figure 14. Map of the borders and connections of the solution, scale 1:4500 (Own image)



5.2 BOUNDARIES

While an optimal range would be circular. The range of 400 meters starting from the site as portrait in figure 13 is not a circular shape but more stretched out triangle. This means certain boundaries don't give easy access to area's beyond it. Vreewijk as shown in figure 14 the location is enclosed by canals that form boundaries on the southern, eastern and northern sides. There is as well a railroad on the western side with just two crossing points. This makes the location very isolated from other neighbourhoods and prevents elderly from entering those neighbourhoods and use the functions within them.

Figure 15. Map of the functions within and aside the range of an elderly, scale 1:4500 (Own image)



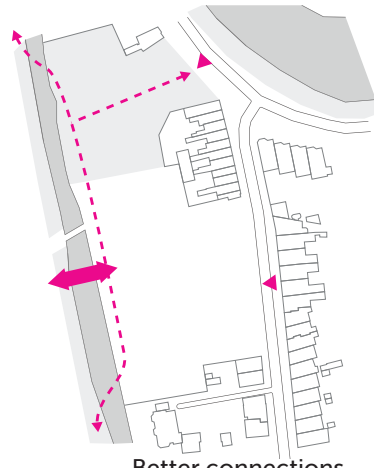
5.3 FUNCTIONS

Now that the social range is established it is also of importance to see if functions are present within it for the elderly to be independent and to give them the opportunity to fulfil their potential. Certain functions are more relevant to elderly as they promote independence. These functions support the primary needs of someone and consist of health care and food. Within the social range only a doctors office is present but no supermarket or pharmacy.

There is a bus stop which gives the opportunity to go elsewhere. This bus stop goes in both ways towards a train station but also to a hospital and a shopping mall with several supermarkets. But if someone is physically declining they will not be able to carry heavy shopping bags into the bus and back to their house, therefore the bus stop is not a permanent solution to house independent elderly within the neighbourhood. Times in which certain areas are reached by bus:

- 10 min to shopping mall with several supermarkets
- 8 min Central Station Leiden and Station Leiden Lammenschans
- 17 min Hospital

5.4 FINDINGS



Better connections

More and better accessible connection within the site stimulates activity and also enlarges people their range.



Supermarket

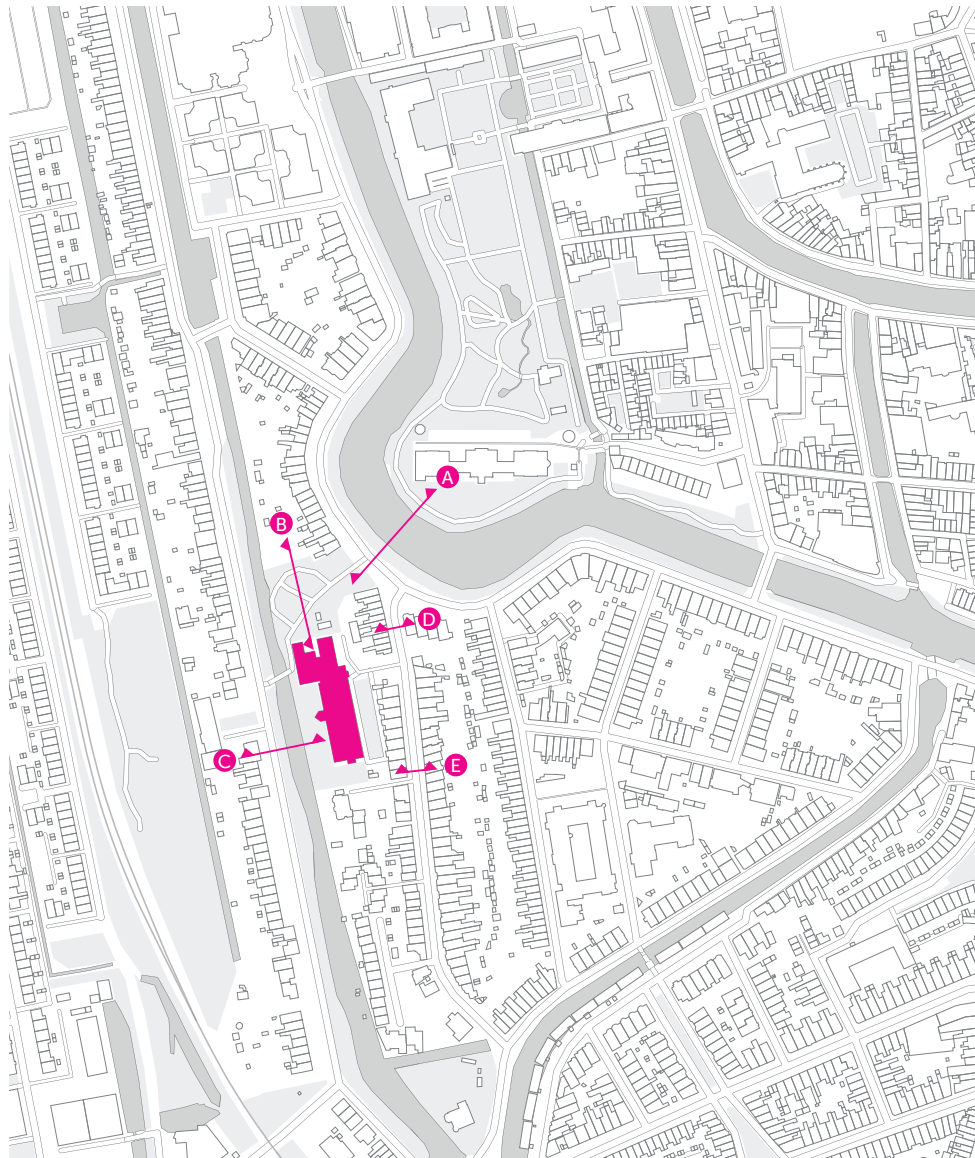
Implement a supermarket as it is not present within the social range. This will enhance the independence of the elderly.

6 SOCIAL DISTANCES



Figure 16. Two front doors side by side share a front yard in the neighbourhood (Own image)

Figure 17. Sections of different urban typologies, scale 1:2500 (Own image)



The amount of distance between people can change their behaviour. Standing in a cramped lift feels uncomfortable physically as well as physiological. This is because as such a moment people invade each others intimate zones (Hall, 1990; Gehl, 2011). There is also an optimum distance for social interaction. This distance is between 1,25 and 2 meter. For every social location (figure 18-21) an analysis is made which portrays the size of the spaces and which activity would be comfortable to do there as well as critique on the situations that are not possible to comfortably do there. This is done with small section through certain areas. Below a map is shown where these sections are taken.

6.1 STREET PROFILES

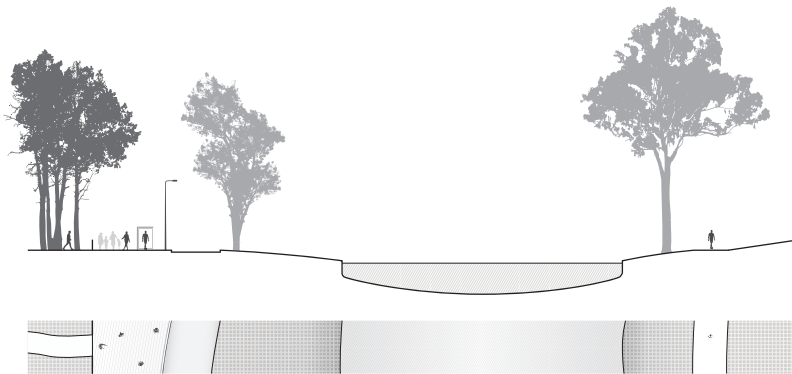


Figure 18. Street profile A Witte Singel (Own image)

The Witte Singel is a wide and busy street along the similarly named water body the Witte Singel. The street has a wide sidewalk on the side opposite of the Singel. There are no crossings and the traffic is quit speedy so crossing the street towards the water body is almost impossible for people who have trouble walking. The housing adjacent to the street have a small front yard and even at locations where there is parking the sidewalk is still wider then two meters giving people the opportunity to pass each other without entering each others personal zones.



Figure 19. Street profile B Park Hortuszicht (Own image)

Park Hortuszicht gives option to take several routes which means people can control the amount of social interaction they want. If an situation occurs where people feel unsafe to pass by, they can take another route through the park. People are in control over their social situation.

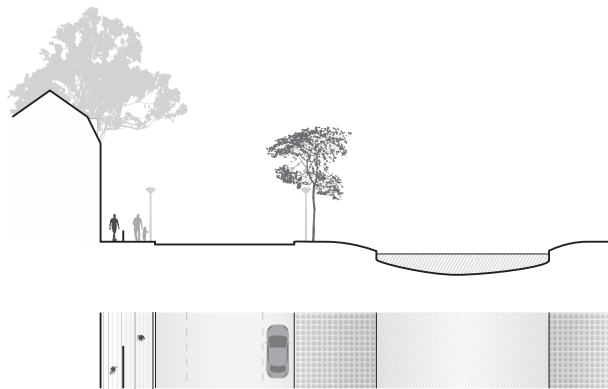


Figure 20. Street profile C Rijn en Schiekade (Own image)

The Rijn en Schiekade has a wide side walk but the quality of the location is the waterside. But this side does not provide the opportunity to walk. Here an opportunity lies to better the surrounding of the plan and to use the qualities of the site which are already present.

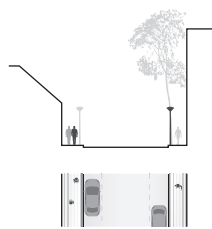


Figure 21. Street profile D Witte Rozenstraat (Own image)



Figure 22. Street profile E Witte Rozenstraat (Own image)

The Witte Rozenstraat along which the location is situated is a small street with housing aside of it. Parking is situated on the sides of the street parallel to the direction of traffic. There is little space for walking and this is sometimes obstructed

by misplaced bikes or wrongly parked cars. There is no place to pass other people without them entering the personal zone. By avoiding cars on street level the size of walking space can still be sufficient in small urban spaces. These small spaces also enhance us to perceive the details of the façades and to see other people in their personal domain.

7 SOCIAL LOCATIONS



Figure 23. Facing chairs in the centre of Leiden (Own image)

There are certain places within our environment used as social locations. Here people gather and socialize but these places also provide opportunity for spontaneous social interaction. The places that provide the best opportunity for this are third spaces (such as café's, restaurants, libraries etc.), green spaces (parks, forests etc.), transitional spaces (porches, front yards etc.) and streets. (Alidoust & Bosman, 2015) These type of locations are located and mapped. These maps will show if they are present, where they are located and what the quality of those particular locations are. In the end certain conclusions can be made on the present opportunities and problems that will have to be faced.

THIRD SPACES

According to the questionnaire the most preferred functions within a community are sport facilities, communal garden/park (described in green spaces), library, café or restaurant and also functional spaces such as supermarkets and shops. What is noticeable is that most of the functions lay beyond the range of the elderly and are mainly cafés and restaurants or paid locations such as a museum and a botanical garden. In the neighbourhood itself only a communal park and children playground are present as well as a jeu de boules field and football pitch.

GREEN SPACES

Near to the site there are multiple green spaces such as park Hortuszicht directly next to the site, the Witte Singel, the Rijnvlietcanal, Hortus Botanicus Leiden and Park de Ruigte.

When looking at the map and the range which the elderly likely can reach it becomes clear that Park de Ruigte and Hortus Botanicus are not reachable. Park de Ruigte would easily be within the reach if a connection would be made. This park is also more a park to retreat in for privacy while park Hortuszicht is more for activities. It would therefore wise to make the connection to Park de Ruigte. Hortus Botanicus is also not within reach but this is also a paid Botanical Garden so this would actually not be possible. The Witte Singel and the Rijnvlietcanal are water bodies with green slopes which along one could walk. But the path where people can walk is always situated on the other side of the road. A new path can be made which fully enjoys the potential of these spaces. This can then be led along the site providing activity to be seen for the elderly.

TRANSITIONAL SPACES

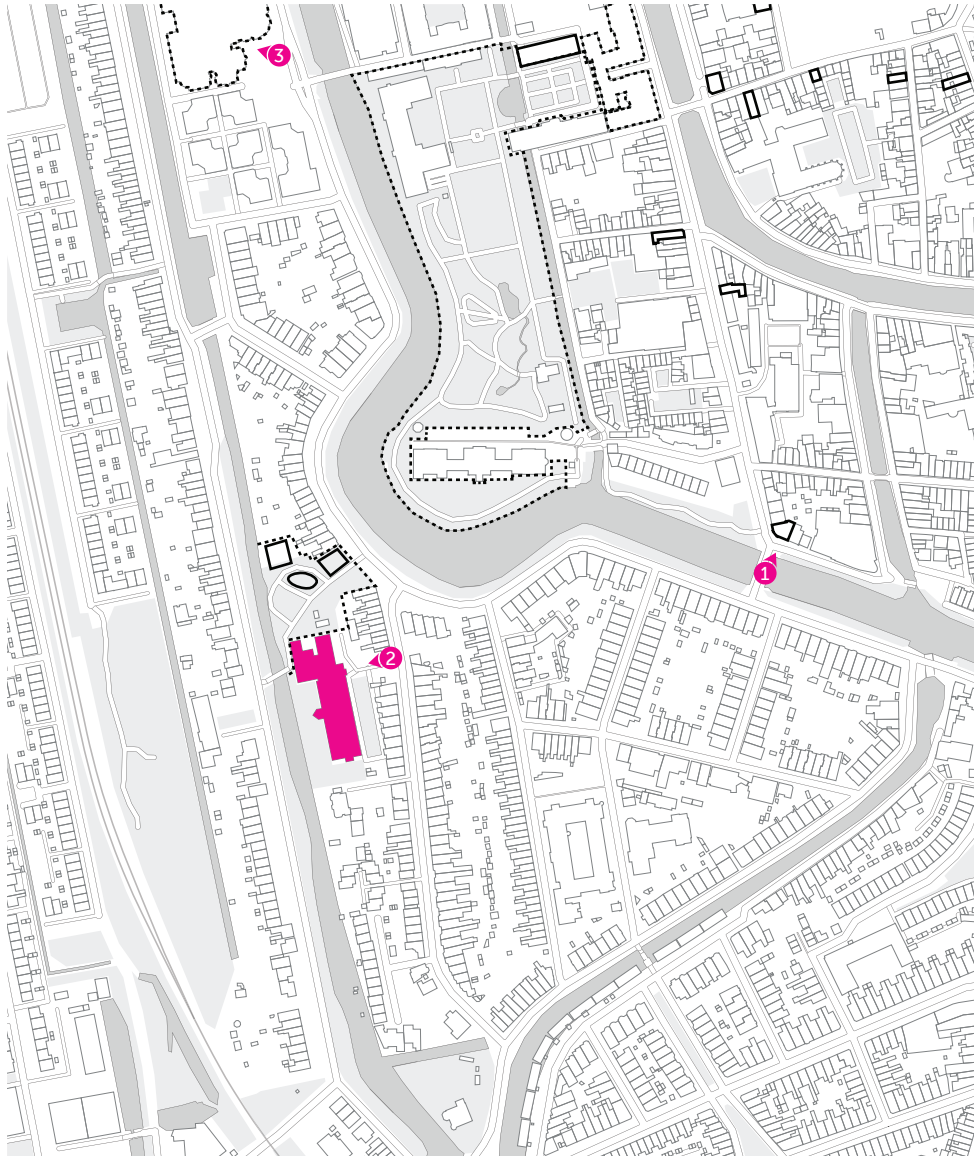
Transitional spaces are important for social contact with other residents within the neighbourhood. Most of our social contact in streets take place in these spaces (Gehl, 1971). This means that transitional spaces such as front yards near to the site will benefit the social health of the elderly that are going to live there.

What can be seen is that at some points there are transitional spaces present but in most cases they are not and people begin to personalise the public realm. This indicates that transitional spaces are wanted among residents.

STREETS

The streets are already discussed in the chapter "Distances".

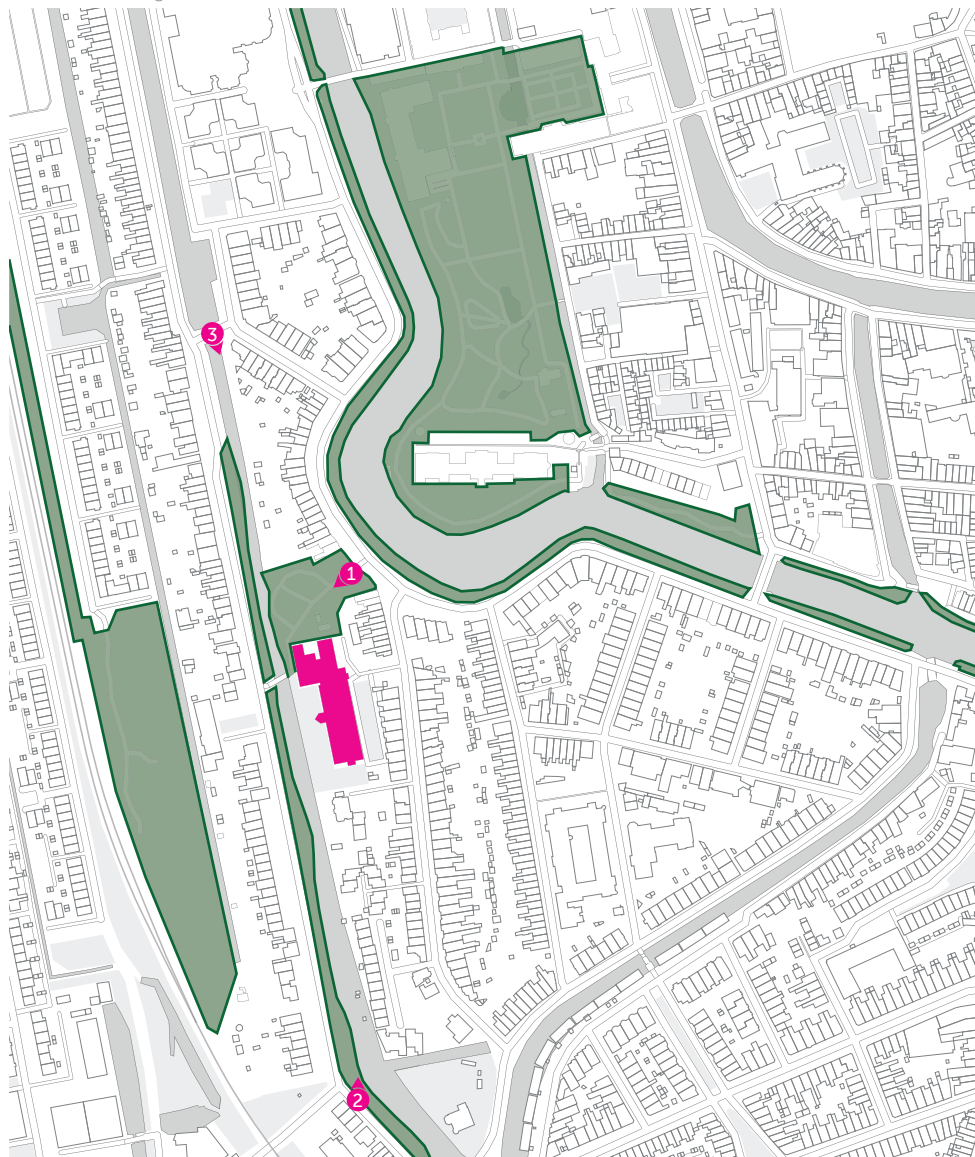
Figure 24. Map of locations where the three photographs below were taken of third spaces, scale 1:2500 (Own images)



7.1 THIRD SPACES



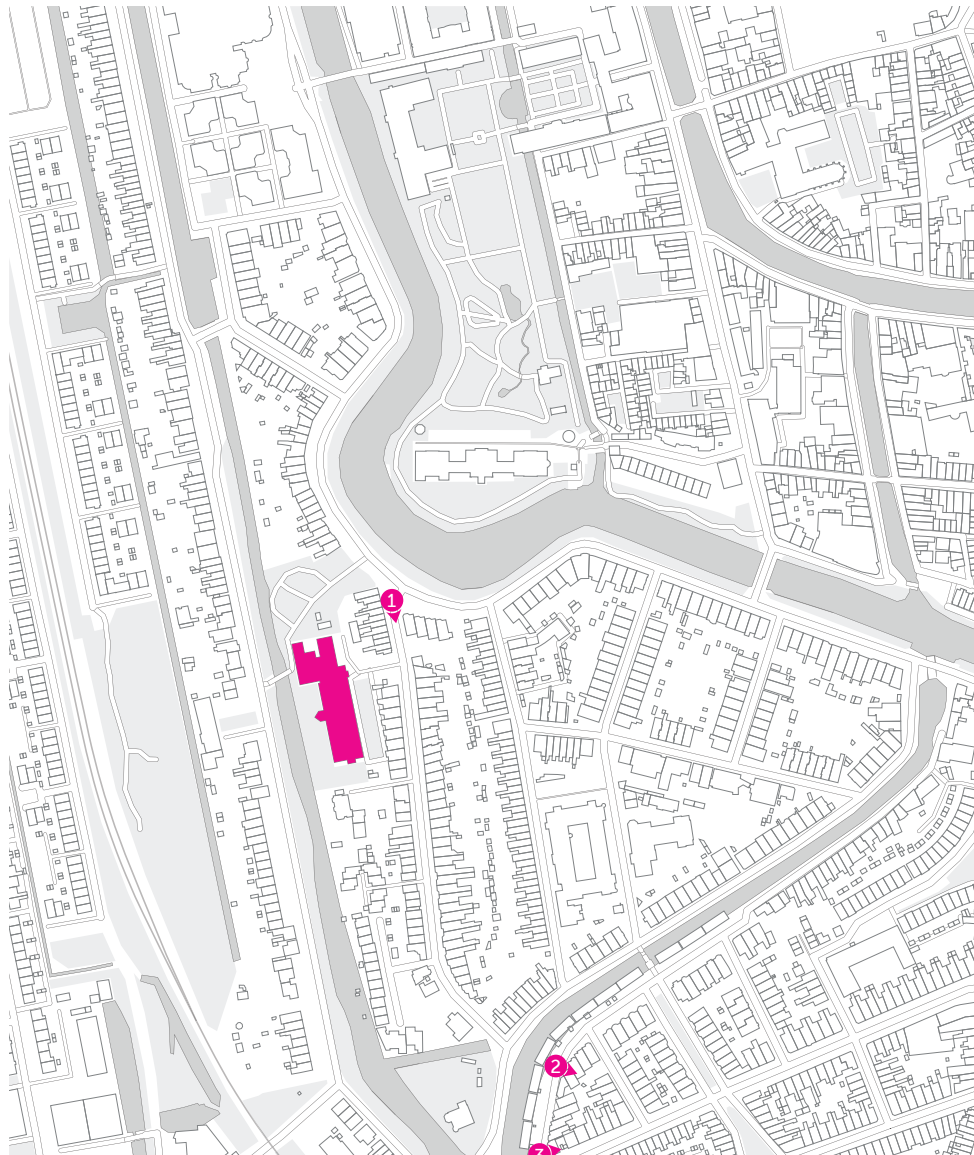
Figure 25. Map of locations where the three photographs below were taken of green spaces, scale 1: 2500(Own images)



7.2 GREEN SPACES



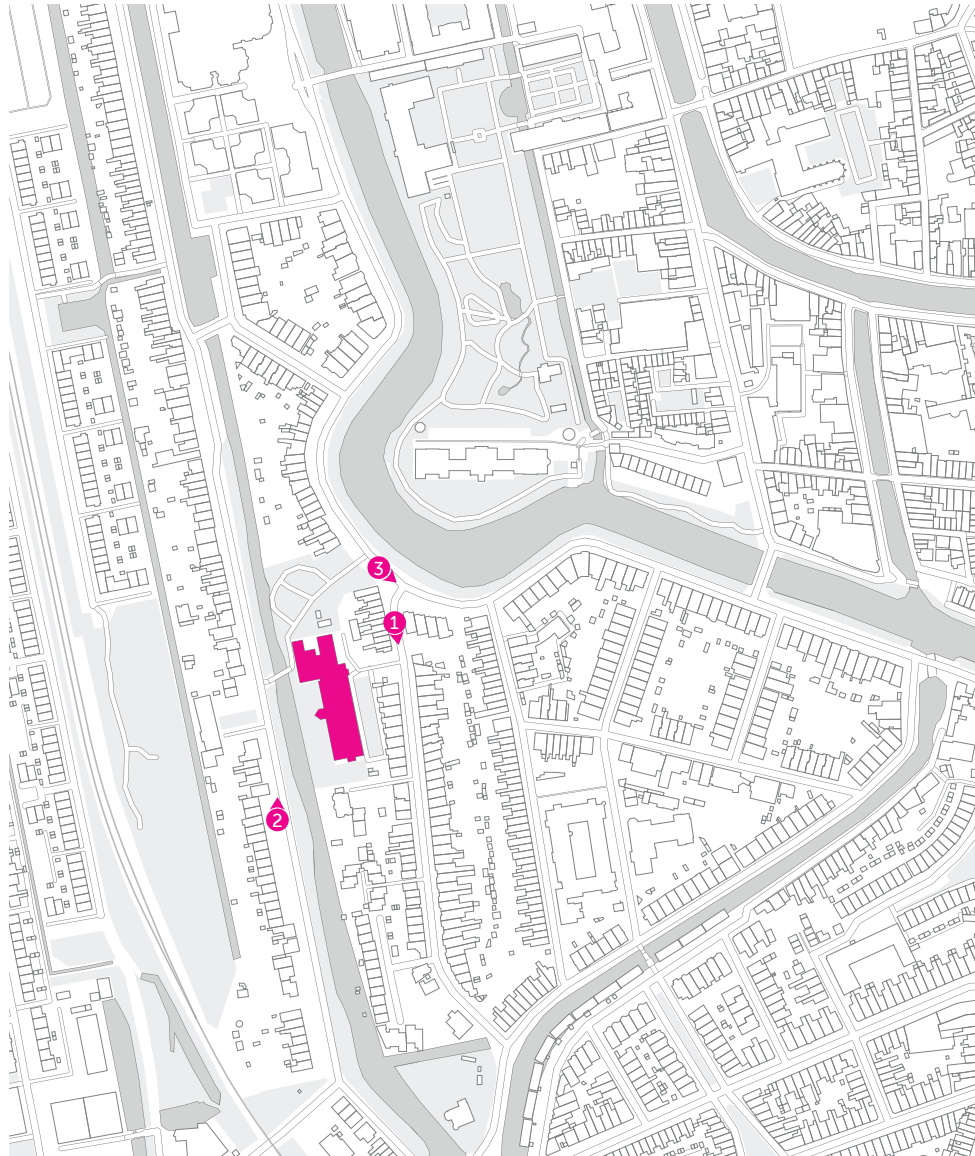
Figure 26. Map of locations where the three photographs below were taken of transitional spaces, scale 1:2500 (Own images)



7.3 TRANSITIONAL SPACES



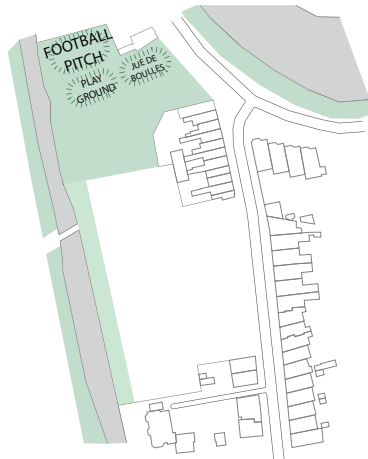
Figure 27. Map of locations where the three photographs below were taken of streets, scale 1:2500 (Own images)



7.4 STREETS

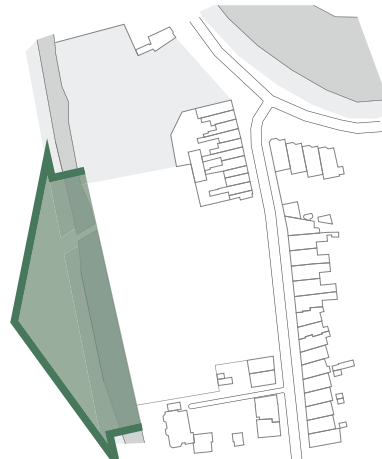


7.5 FINDINGS



Make use of functions already present

There are several functions already present in the park next to the site such as a football pitch, jeu de boules pitch and a playground. Make better connections and visible links to use them to their full potential.



Privacy when needed

To engage in social interaction is a choice. To be alone is not the same as loneliness and is even beneficial. It is therefore important to be able to retreat from social situations.



Use green riversides as paths

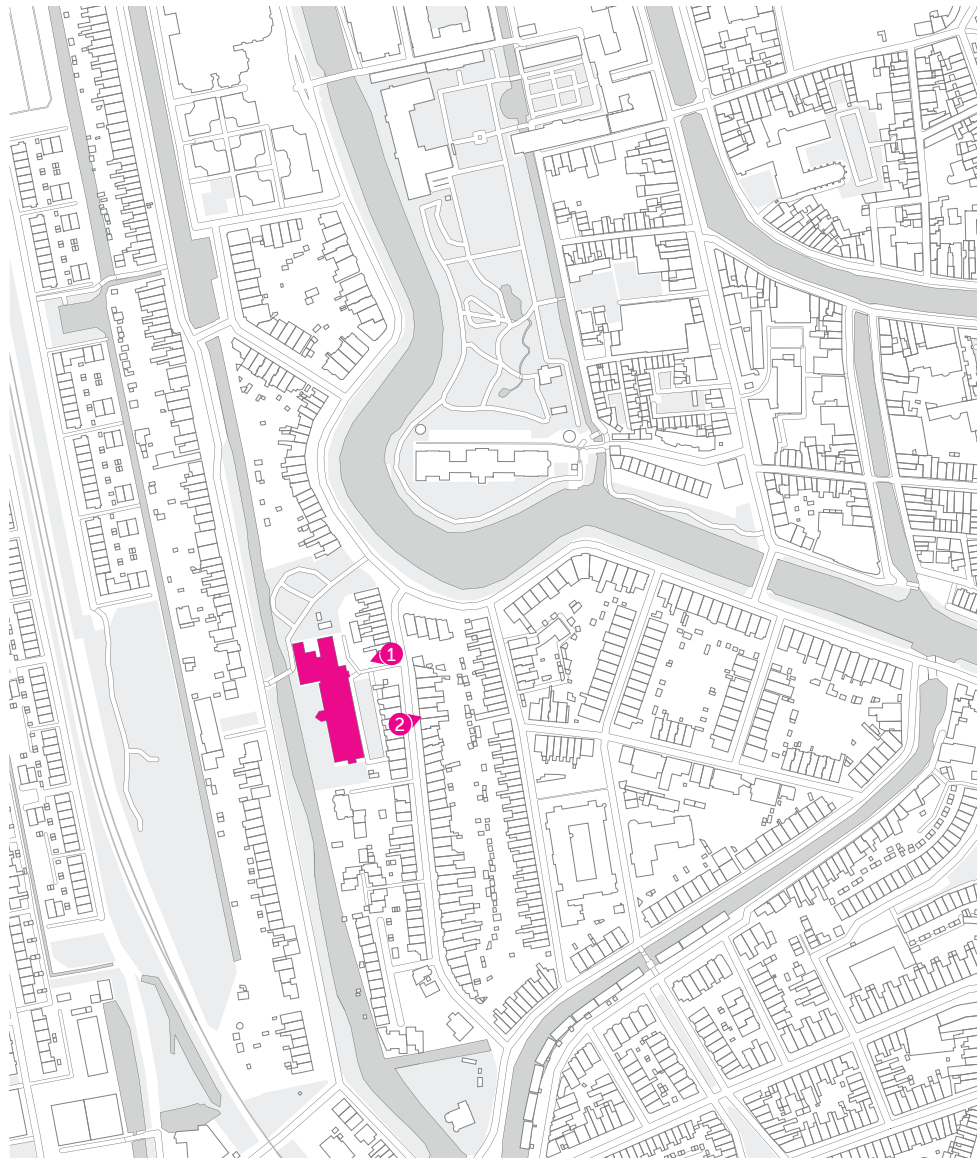
The canal/riversides are potential sources for stimulation and enjoyment. Use to trigger people to walk and provide activity within the site as well as a quality for the future residents. Provide a small stroke of greenery along the water body on the site.

8 SOCIAL ENVIRONMENT



Figure 28. Protest banner placed by inhabitants (Own image)

Figure 29. Map of locations where the two photographs right were taken, scale 1:2500 (Own image)



8.1 SAFETY

The location feels relatively safe as the streets around it give a good overview over the situation. There are not much cravesses for potential dangers to lure. There are also a lot of windows situated on street level which provokes the feeling of social control.

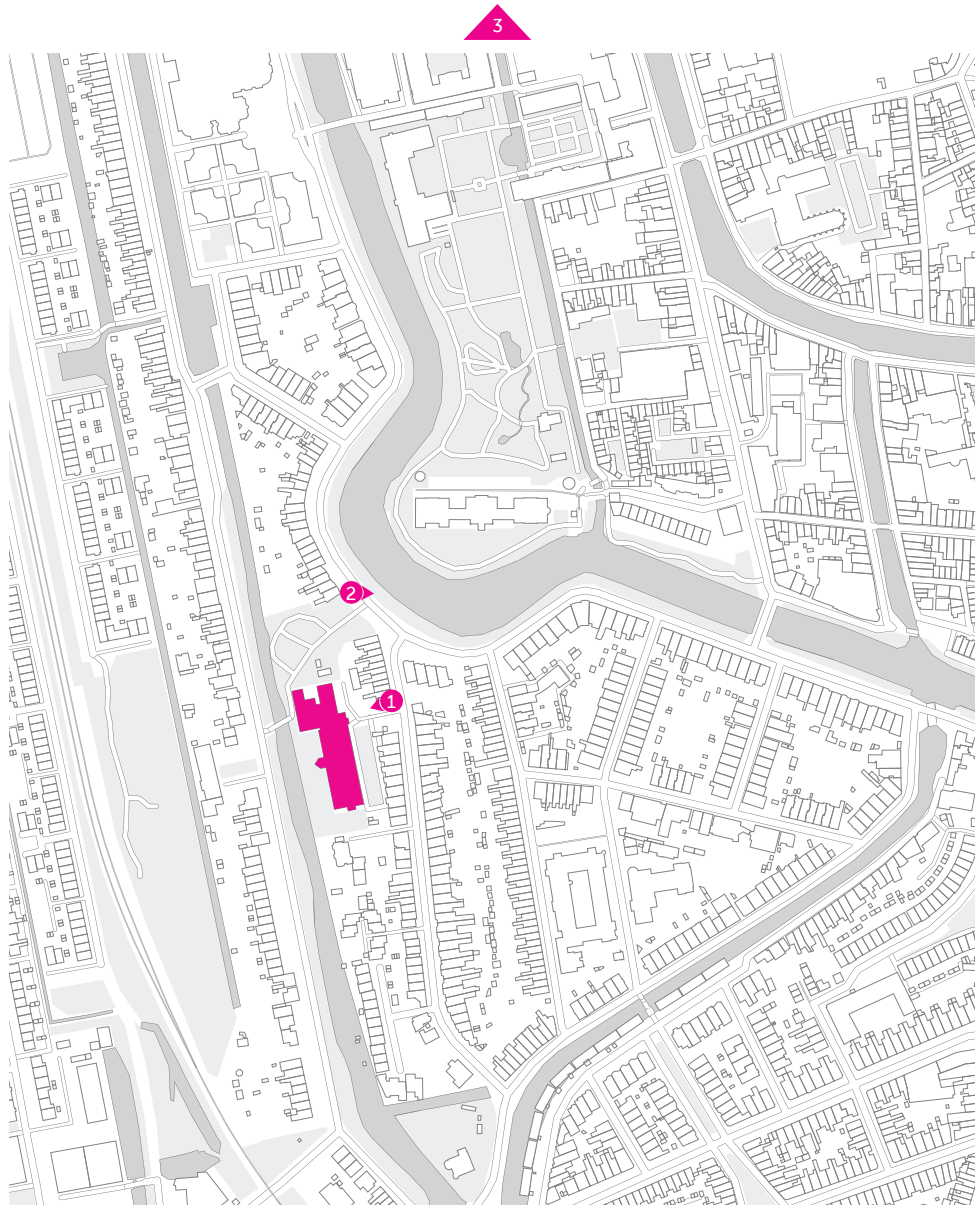


1 Figure 30. Front doors share a transitional space (Own image)



2 Figure 31. Crossing (Own image)

Figure 32. Map of locations where the three photographs right were taken, scale 1:2500 (Own image)



8.2 COMFORT

The location does not house a lot of comfort as it does not provide shade or seating. The seating in the neighbourhood close to the location is not accessible for elderly as a busy street should be crossed with no crossing present and a curb and grass then continuous to block an easy transfer to the bench (figure 34). There is also no protection from the elements besides the trees situated in the park next to the location.



1 Figure 33. Public bookcase (Own image)

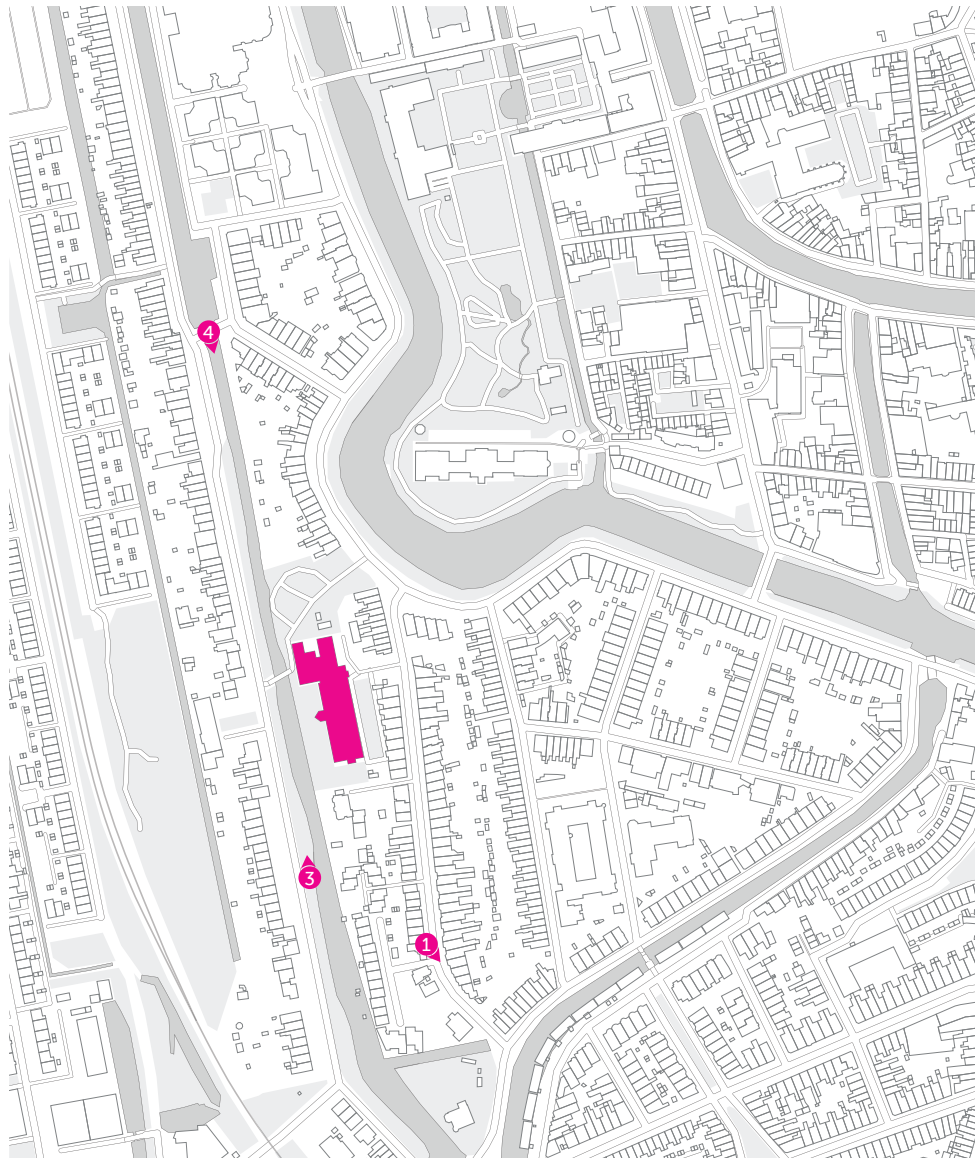


2 Figure 34. Bench along Single (Own image)



3 Figure 35. Facing chairs (Own image)

Figure 36. Map of locations where the four photographs right were taken, scale 1:2500 (Own image)



8.3 STIMULATION

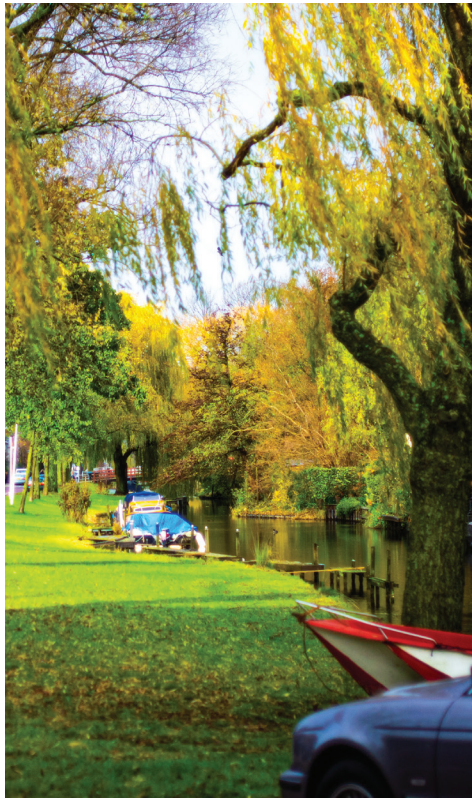
There is a lot of water and nature present as well as highly detailed façades with a lot of diversity. The environment is pleasant to walk in and is stimulating. A point of remark is the trash and bikes close to student housing that is stimulating but not attractive and can also cause unsafe situations. By providing better facilities to house such traffic a safe place that can be enjoyed by elderly as well as provide stimulation can be created.



1 Figure 37. Detailed façades (Own image)



2 Figure 38. Trash in yard (Own image)

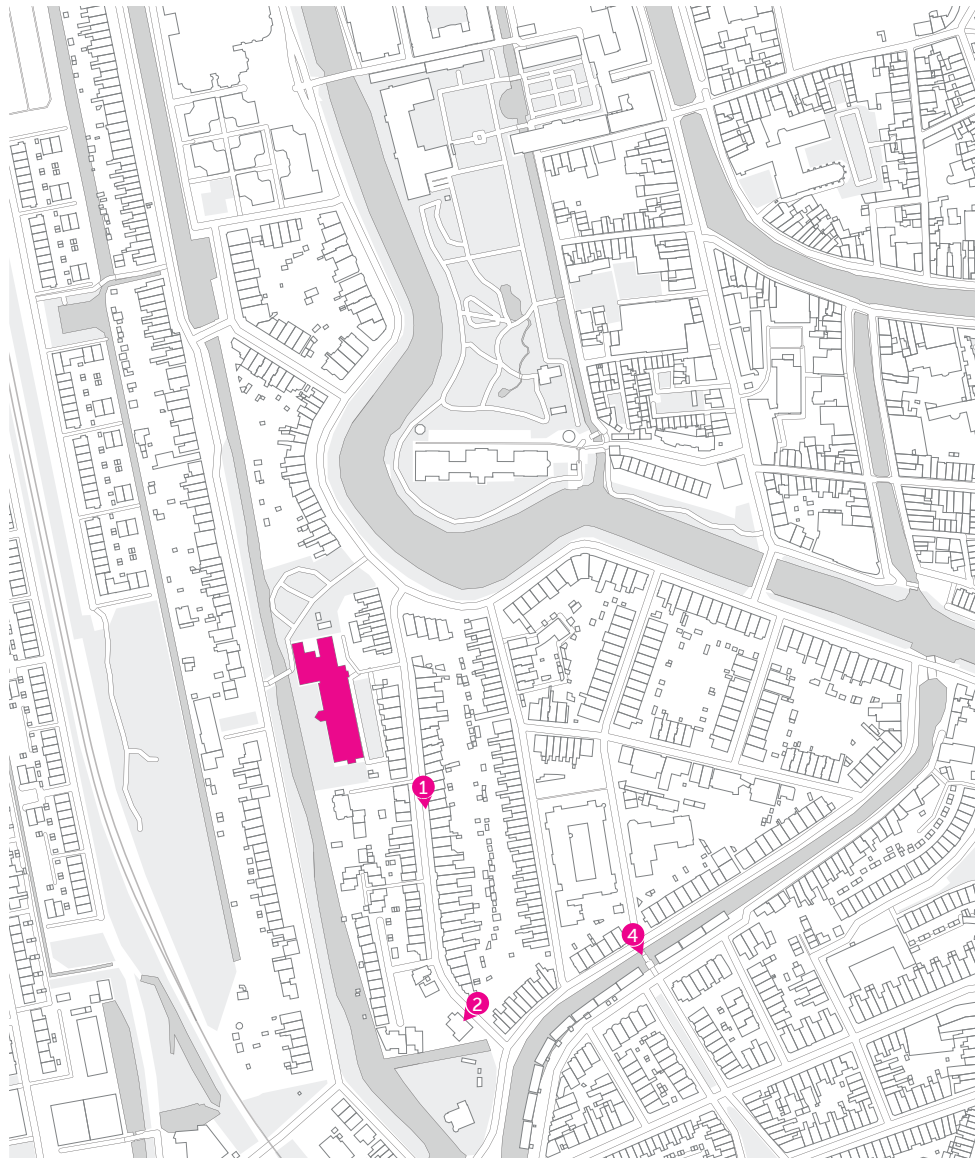


3 Figure 39. Rijn-vliet canal (Own image)



4 Figure 40. Rijn-vliet canal (Own image)

Figure 41. Map of locations where the four photographs right were taken, scale 1:2500 (Own image)



8.4 ACCESSIBILITY

The accessibility within the neighbourhood is lacking. The neighbourhood is already cut off by water bodies and a railroad but the bridges which surpass these borders are also not accessible for people with bad mobility or with a mobility scooter. Next to this the neighbourhood is full of student housing which is apparent on the streets in the form of bicycles. They are randomly placed and obstruct normal passengers from walking on the sidewalk. Mobility can be increased by building better bridges and tidying the environment by tactically placing bike racks. When designing the plan parking for bicycles should be considered consciously.



1 Figure 42. Obstructing bikes (Own image)



2 Figure 43. Not maintained house (Own image)

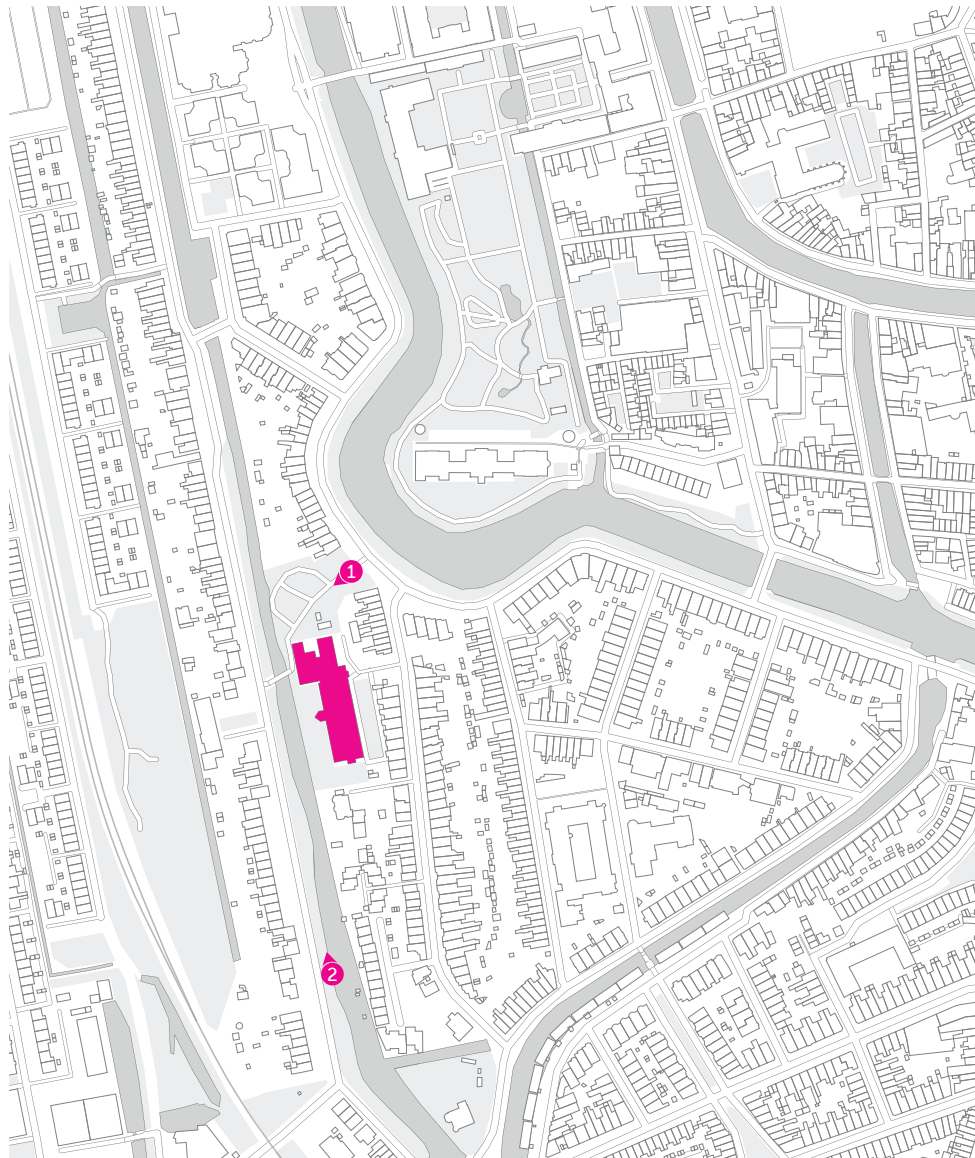


3 Figure 44. Hard accessible bridge (Own image)



4 Figure 45. Inaccessible bridge (Own image)

Figure 46. Map of locations where the two photographs right were taken, scale 1:2500 (Own image)



8.5 PRIVACY

Privacy is not really relevant outside of the building because the environment is most of all public. But it is also important to be able to retreat from the busy surroundings and enjoy silence or privacy. This can also be sitting on a bench in a park or taking a walk. The places where this is possible are not present in the range of elderly but outside of it. As already discussed earlier it would be possible to make this area more accessible and therefore give people the opportunity to retreat.

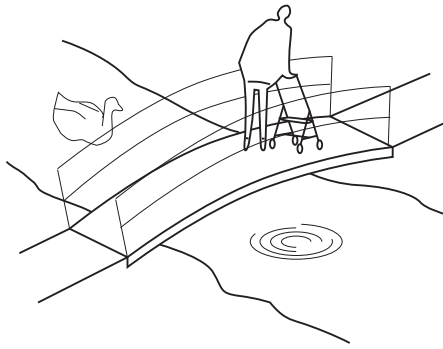


1 Figure 47. Park Hortuszicht (Own image)



2 Figure 48. Rijn-vliet canal (Own image)

8.6 FINDINGS



Accessible bridges

Built accesible bridges so that the elderly can extent their range as well as walk different routes through the environment.

REFERENCE LIST

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- Rutte, R., & Abrahamse, J. E. (2013). *Atlas van de verstedelijking in Nederland (1st edition)*. Bussum, Netherlands: Thoth.

