

**SOCIAL
SAFETY
IN CLOUD
CHARLOIS**
GPS TRACKING OF SENIORS

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Foreword

"A perfect social safe design does not exist. It is the people of a neighbourhood that in the end cause or prevent crime. But what we as urbanists can do is shape conditions that make a social safe area possible." (Voordt, D.J.M. van der, and H.B.R. van Wegen - 1990)

For this course we worked on the *Veldacademie* in Rotterdam Oud-Charlois. This academy is a cooperation between the municipality of Rotterdam and the TU Delft. It is a knowledge centre for neighbourhood transformation. The course is an elective in the Urbanism Masters degree.

Twelve students worked together and divided in groups of three persons. The three of us have been working together since the first week, and had a productive cooperation during the nine weeks of the course.

We hope you will enjoy reading this report!

Robin Boelsums
Thomas Galesloot
Khor Minhong

1. Preface

1.1 Abstract

1.2 Introduction

1.1 Abstract

In this report we explain how we try to reach the goal ‘improve the social safety in Oud-Charlois by the participation of seniors’. For this course the task was to design an assisted living area in which a person is able to live as long as possible in their own neighbourhood. We focus on a certain aspect of that, namely the social safety of Oud-Charlois. This aspect is very important when trying to prevent seniors to move out of their neighbourhood.

We use a checklist with criteria for designing a social safe area. We define which of these criteria are absent in Oud-Charlois. Because we want to include seniors in these solutions we talk in more detail about the criteria that they can address: presence of people and involvement/responsibility of neighbourhood. We state that our group of seniors are mainly active persons, so they will be very capable of solving these problems.

After this, we research which public places of the area need modification. Out of our masterplan we focus on three streets and made an individual design for those. The designs are based on the two previous criteria.

We do not expect much of the seniors, they do what they always do on a regular day. But we will shape the conditions that may change their behaviour unconsciously. They take a different route because of better accessibility (presence in a certain street) or they put a bench in front of their house because we gave them a semi-public zone (they show involvement).

1.1 Abstract

1.2 Introduction

1.2 Introduction

GPS tracking is a rapidly evolving technology that is getting more and more accessible for research. New notions can be found when we use the Global Positioning System to trace the movement patterns of residents. For this course twelve students tracked 40 seniors during four days. The seniors had to carry a little GPS device with themselves whenever they left their homes. The assignment was to use these movement patterns to make a design for an assisted living area in Oud-Charlois, Rotterdam.

An assisted living area is “an area in which people needing assistance with activities of daily living can live as independently as possible for as long as possible, with support of long-term care facilities” (MedicineNet, 2010). This means that people should be able to live as long as possible in their own neighbourhood, without having to move to a care facility. The present idea of assisted living seems to be outdated. It is the idea of elderly living in an assisted living facility (care centre) with all facilities as closeby as possible. New theory states that elderly should be able to stay in their own house as long as possible, without having to move as early as they do now. The houses should be more fit for elderly and also the neighbourhood with its facilities should be adapted in a way that elderly can make use of it far longer than they do now. Accessibility, safety and facilities are examples of topics urbanists should deal with when creating an assisted living area.

In this course we will make a design towards an assisted living area, according to the new developing ideas about it. If we want to prevent the necessity for seniors to move because of their health, we also have to make certain they will not move for other reasons such as accessibility, safety and social isolation. In this report we will discuss social safety, which also influences the other two topics. Social safety deals with for example escape routes, presence of people and attractiveness of the area.

We believe that seniors can be involved in solving the problems on social safety in Oud-Charlois. We research those possibilities and take a look at how we can best shape the environment in a way that seniors are able to help with increasing the social safety.

2. Approach

2.1 Goal

2.2 Strategy

2.1 Goal

In this course, we address two main topics: GPS and assisted living. We tracked 40 seniors with GPS devices and their movements are studied. All seniors are from Oud Charlois in Rotterdam or nearby.

Our goal is:

Improve the social safety of the public space in Oud-Charlois by the participation of seniors

We believe that seniors can be really helpful when solving the problem of social safety in Oud-Charlois. As can be read in the following chapter, we do not ask a lot of the seniors. They simply can do what they always do on a regular day. But we will shape the conditions that may change their behaviour unconsciously.

2.1 Goal

2.2 Strategy

2.2 Strategy

To reach the goal, we define five questions to help us. Question V will derive the answer how to reach the goal.

I What are the criteria for a social safe neighbourhood?

Our aim is to work on the social safety of Oud Charlois.

How can we reach a social safe area? What literature is there on this topic and therefore what criteria can we use?

II What criteria are absent in Oud Charlois?

If we answer this question, we know what problems we have to deal with.

III Which of these criteria can be reached by our focus group of seniors?

To reach our goal we need to answer this, because we will only include the participation of seniors for this goal.

IV Which public areas of Oud Charlois need improvement?

After these first answers, we can derive the public spaces that need improvement.

V How can we improve these public areas?

As an example we will make designs to improve some of the mentioned areas.

To answer these questions we use different tools. An important one is the GPS. As mentioned, we tracked 40 seniors to look at their movement patterns. Of course, these patterns are not representative for the entire neighbourhood of Oud-Charlois. However, for this course it is interesting to learn how we can use this method when there would be hundreds of seniors tracked, which could happen in the future. Therefore we assume that these tracks are representative for all seniors of the neighbourhood. We do take into account the characteristics of the tracked seniors, more on that in paragraph 3.3.

3. Research and Design

3.1 What are the criteria for a social safe neighbourhood?

3.2 What criteria are absent in Oud Charlois?

3.3 Which of these criteria can be reached by our focus group of seniors?

3.4 Which public areas of Oud Charlois need improvement?

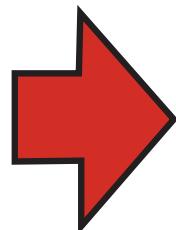
3.5 How can we improve these public places?

3.1 What are the criteria for a social safe neighbourhood?

The following items are the criteria for a social safe neighbourhood. When we talk about social safety we talk about both the actual safety (crime rates, number of robberies etc) and the perception of safety (do people feel safe). First there is a list of the criteria in general, second we adapted this list specifically for Oud-Charlois.

General Social safety checklist

-  1. Presence of potential offender (perpetrator)
-  2. Presence of 'social eyes'
-  3. Visibility
-  4. Involvement/responsibility
-  5. Attractiveness of the public space
-  6. Accessibility/escape routes
-  7. Attractiveness of potential target
-  8. Vulnerability of potential target



Oud-Charlois Social safety criteria

-  1. Presence of other people
-  2. Visibility
-  3. Involvement/responsibility
-  4. Attractiveness of the area
-  5. Accessibility
-  6. Vulnerability of potential target

Literature: Voordt, D.J.M., van der, 'Sociaal Veilig Ontwerpen, checklist ten behoeve van het ontwikkelen en toetsen van (plannen voor) de gebouwde omgeving.', Delft, 1990

3.1 What are the criteria for a social safe neighbourhood?

Now we zoom in on these criteria. What do these items mean exactly?

Social safety criteria



1. Presence of other people

- Formal surveillance (police, security guard)
- Semi-informal surveillance (street coaches, shop owners, etc)
- Informal surveillance (neighbours, passer-by)
- Feeling of presence of other people



5. Accessibility

- entries to non-public areas are closed properly
- public areas accessible from several points
 - escape routes for potential victims
 - risk of getting caught as offender



6. Vulnerability of potential target

- people: physical (depends on age, gender)
- items: 'asshole proof' design of street furniture



3. Involvement/responsibility of neighbourhood

- Low moving tendency
- Design of public space in relation to users wishes
- Ability to recognize co-users (scale)
- Stimulate use of collective space
- Participation of residents in management of public space
- Clearly define who is responsible for what



4. Attractiveness of the area

- Design of public space in relation to users wishes
- Attractive colour material usage
- attractive street furniture
- good regular maintenance of public space

3.1 What are the criteria for a social safe neighbourhood?

3.2 What criteria are absent in Oud Charlois?

3.3 Which of these criteria can be reached by our focus seniors?

3.4 Which public areas of Oud Charlois need improvement?

3.5 How can we improve these public places?

3.2 What criteria are absent in Oud-Charlois?



We narrowed down our focus area to just the Northern part of Oud-Charlois, so we could be more detailed in our research. The Northern area is interesting because it consists of different street typologies, the commercial centre of Oud-Charlois and a diversity of deprived and less deprived building blocks.

scale 1:20000

3.2 What criteria are absent in Oud-Charlois?

1 Presence of other people



Examples of informal surveillance in Oud-Charlois

Examples of formal surveillance in Oud-Charlois



3.2 What criteria are absent in Oud-Charlois?

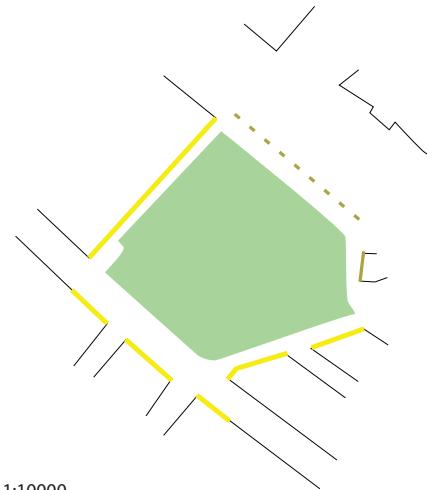
1 Presence of other people



3.2 What criteria are absent in Oud-Charlois?

2. Visibility_Public places

① Karel de Stouteplein



open facade
closed facade
dike

scale 1:10000
good view from house to park and vice versa

Street lights

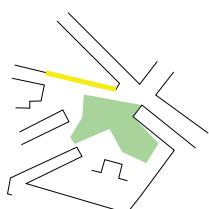


sufficient street lights

Visibility



② Gouwplein



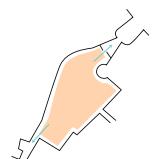
scale 1:10000
closed facades cause bad visibility



sufficient street lights



③ Wolphaertse plein



scale 1:10000
after school closure bad visibility



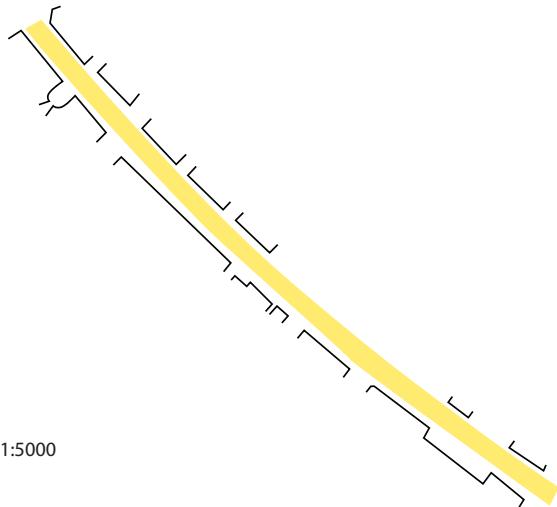
no street lights



3.2 What criteria are absent in Oud-Charlois?

2. Visibility_Streets

① Wolphaertsbocht



scale 1:5000

Street lights



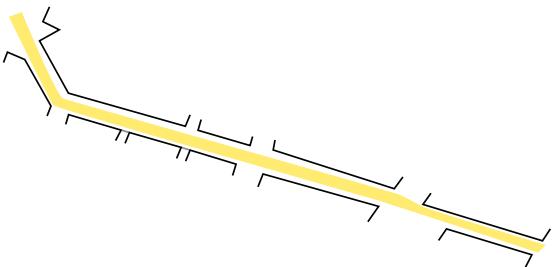
sufficient

Visibility



bad on some spots: shed

② Frans Bekkerstraat



scale 1:5000



sufficient



bad: closed curtains + highered 1st floor

3.2 What criteria are absent in Oud-Charlois?

3. Involvement/responsibility in the neighbourhood



3.2 What criteria are absent in Oud-Charlois?



3.2 What criteria are absent in Oud-Charlois?



**4. Attractiveness of
the area**



bad maintenance

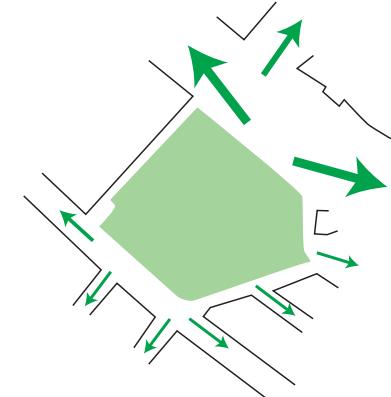
**unattractive
street furniture**

3.2 What criteria are absent in Oud-Charlois?

5. Accessibility_Public places

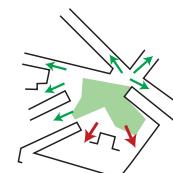


① Karel de Stouteplein



great sense of accessibility/escape routes

② Gouwplein



good sense of accessibility/escape routes

③ ??



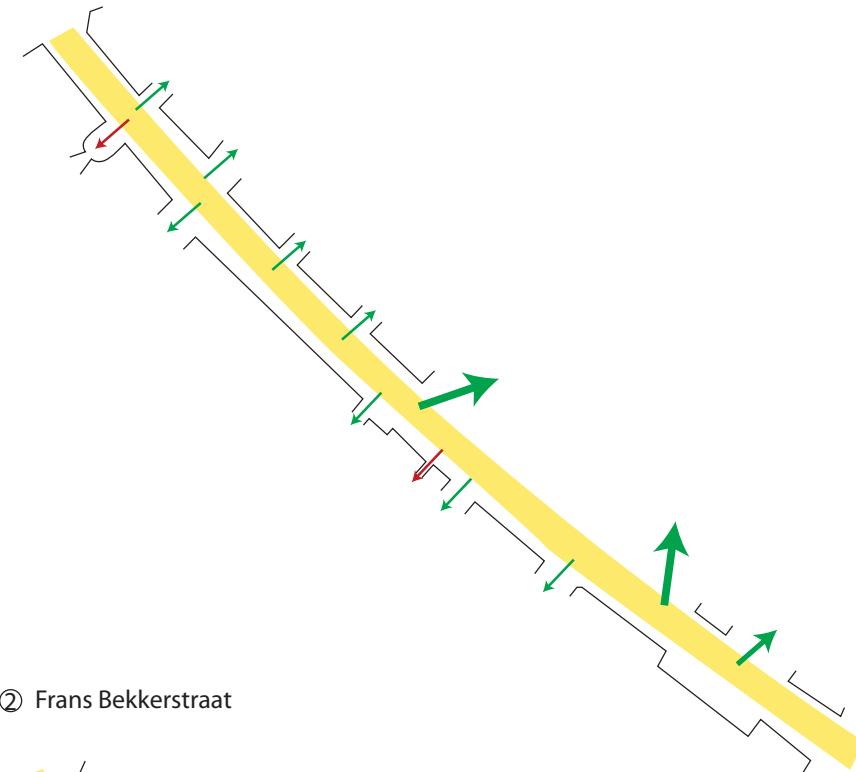
weak sense of accessibility/escape routes

3.2 What criteria are absent in Oud-Charlois?

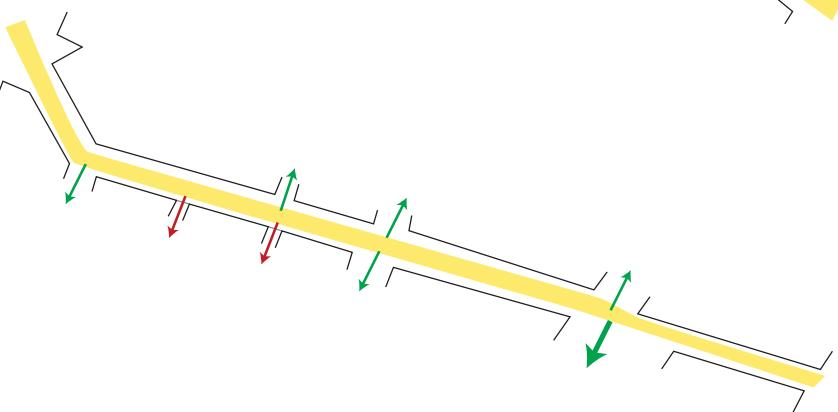
5. Accessibility_Streets



① Wolphaertsbocht



② Frans Bekkerstraat



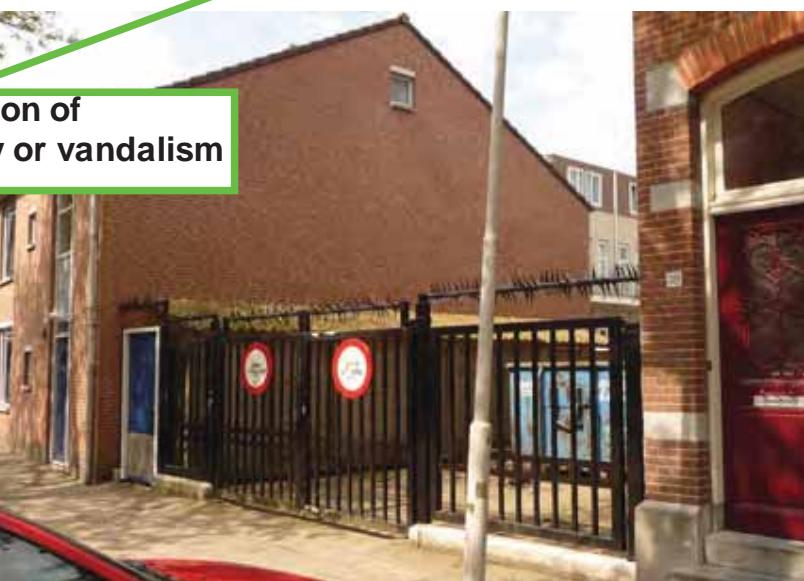
3.2 What criteria are absent in Oud-Charlois?

6. Vulnerability of potential target



6. Vulnerability of potential target

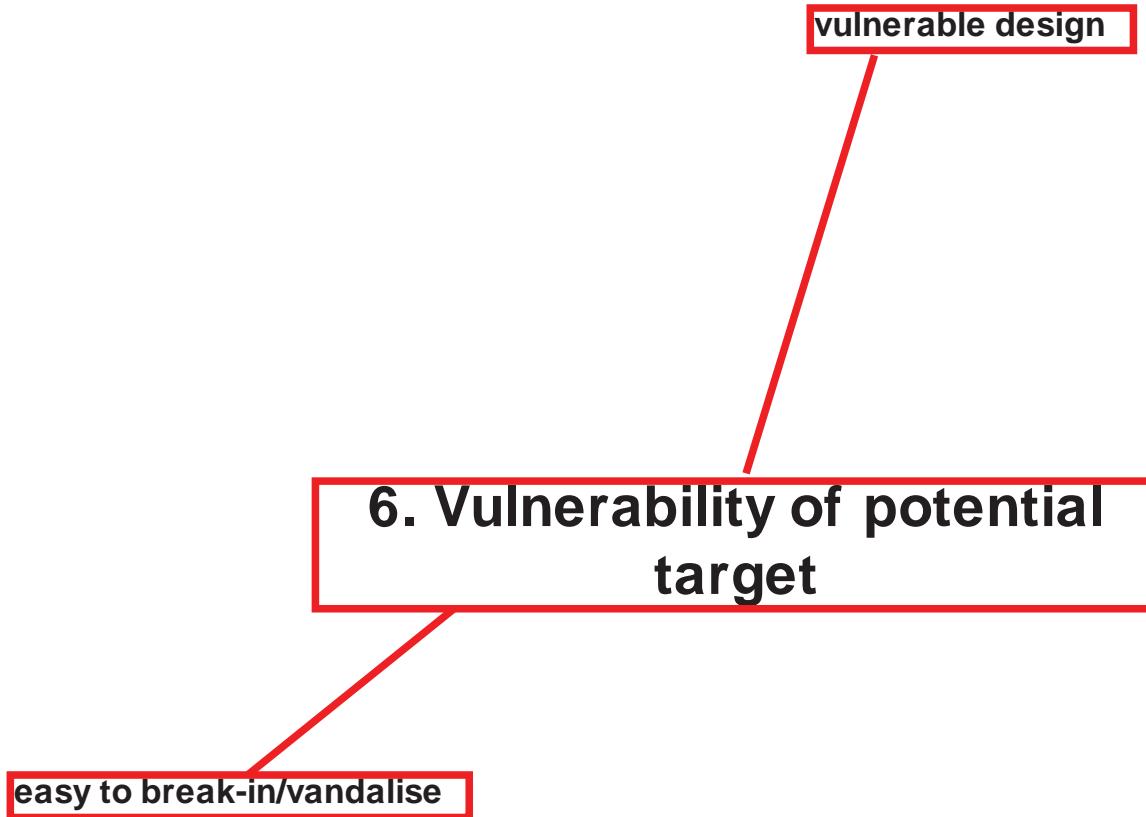
prevention of
burglary or vandalism



3.2 What criteria are absent in Oud-Charlois?

5. Accessibility_Public places

none.



none.

3.2 What criteria are absent in Oud-Charlois?

Social safety criteria

When we take a look again at the criteria we can mark them red, orange or green: respectively absent, absent at some places, or present.



1. Presence of other people

- Formal surveillance (police, security guard)
- Semi-informal surveillance (street coaches, shop owners, etc)
- Informal surveillance (neighbours, passer-by)
- Feeling of presence of other people



2. Visibility

- Clear view within the public space
- Sufficient street lights
- Clear view from house to public space and vice versa



3. Involvement/responsibility of neighbourhood

- Low moving tendency
- Design of public space in relation to users wishes
- Ability to recognize co-users (scale)
- Stimulate the use of collective space
- Creating opportunities for semi-public use of public space



4. Attractiveness of the area

- Design of public space in relation to users wishes
- Attractive colour & material usage
- attractive street furniture
- good & regular maintenance of public space



5. Accessibility

- entries to non-public areas are closed properly
- public areas accessible from several points
 - escape routes for potential victims
 - risk of getting caught as offender



6. Vulnerability of potential target

- people: physical (depends on age, gender)
- items: 'asshole proof' design of street furniture

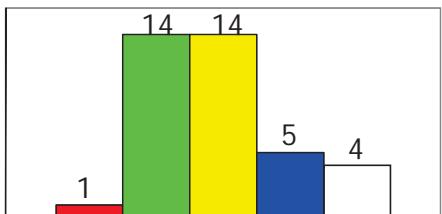
- 3.1 What are the criteria for a social safe neighbourhood?
- 3.2 What criteria are absent in Oud Charlois?
- 3.3 Which of these criteria can be reached by our focus seniors?**
- 3.4 Which public areas of Oud Charlois need improvement?
- 3.5 How can we improve these public places?

3.3 Which of these criteria can be reached by focus group of seniors?

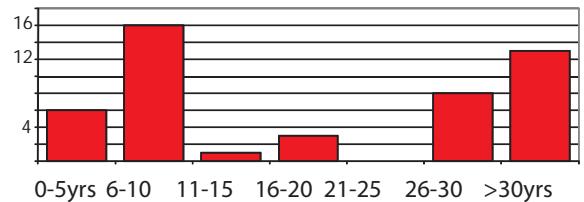
Profile of the tracked group

Lifestyles
SmartAgent

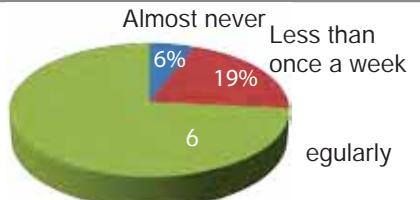
green world
& yellow world



How long have you lived in the neighbourhood?



Do you often take a walk in the neighbourhood?



How often do you have a small talk with people from your close neighbourhood?



People can select more than one checkbox, so percentages may add up to more than 100%.

racked group are in average

Active Seniors

socially active:

group-oriented
make a chat with neighbours
live in Sud-Charlois for long time

physically active

walk for leisure often
PS activity radius:
way more than 5 m

When we typify the seniors we tracked, we can tell that they are active seniors. Most of them have lived in the area for a long time, so they feel involved. They often take a walk in the neighbourhood and have a talk with the people that are around.

The lifestyle scheme shows a lot of green and yellow, and less blue and red. This means the following:

red - ego oriented, vital, dynamic
green - group oriented, protection
yellow - group oriented, harmony
blue - ego oriented, control, status

3.3 Which of these criteria can be reached by focus group of seniors?

Criteria that seniors can participate in

SOLVABLE BY ACTIVE SENIORS



1. Presence of other people

- Formal surveillance (police, security guard)
- Semi-informal surveillance (street coaches, shop owners, etc)
- Informal surveillance (neighbours, passer-by)
- Feeling of presence of other people



2. Visibility

- Clear view within the public space
- Sufficient street lights
- Clear view from house to public space and vice versa

SOLVABLE BY ACTIVE SENIORS



3. Involvement/responsibility of neighbourhood

- Low moving tendency
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- entries to non-public areas are closed properly
- public areas accessible from several points
 - escape routes for potential victims
 - risk of getting caught as offender



6. Vulnerability of potential target

- people: physical (depends on age, gender)
- items: 'asshole proof' design of street furniture

Out of the six criteria active seniors can participate in two of them. The other four criteria can be solved by tangible solutions, not by people.

3.3 Which of these criteria can be reached by focus group of seniors?

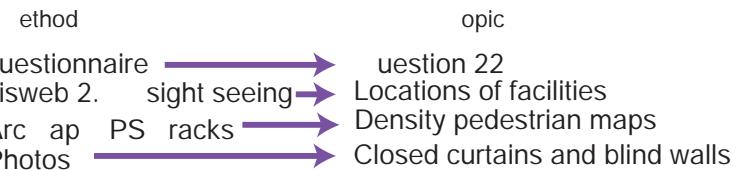
Methods to derive information needed

SOLVABLE BY ACTIVE SENIORS



1. Presence of other people

- Formal surveillance (police, security guard)
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- Informal surveillance (neighbours, passer-by)
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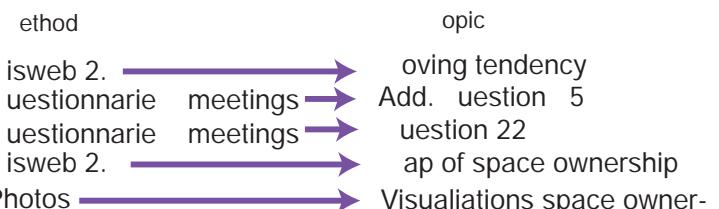


SOLVABLE BY ACTIVE SENIORS



3. Involvement/responsibility of neighbourhood

- Low moving tendency
- Design of public space in relation to users wishes
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- 3.1 What are the criteria for a social safe neighbourhood?
- 3.2 What criteria are absent in Oud Charlois?
- 3.3 Which of these criteria can be reached by our focus seniors?
- 3.4 Which public areas of Oud Charlois need improvement?**
- 3.5 How can we improve these public places?

3.4 Which public areas of Oud-Charlois need improvement?

Methods to derive information needed for analysis

SOLVABLE BY ACTIVE SENIORS



1. Presence of other people

- Formal surveillance (police, security guard)
- Semi-informal surveillance (street coaches, shop owners, etc)
- Informal surveillance (neighbours, passer-by)
- Feeling of presence of other people

method

questionnaire
isweb 2.
Arc ap
Photos

opic
uestion 22
sight seeing

Locations of facilities
Density pedestrian maps
Closed curtains and blind walls

SOLVABLE BY ACTIVE SENIORS



3. Involvement/responsibility of neighbourhood

- Low moving tendency
- Design of public space in relation to users wishes
- Ability to recognize co-users (scale)
- Stimulation use of collective space
- Creating opportunities for semi-public use of public space

method

isweb 2.
questionnaire
questionnaire
isweb 2.
Photos

opic
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ap of space ownership

Visualiations space owner-

3.4 Which public areas of Oud-Charlois need improvement?

(Semi) Informal surveillance from buildings
criterion 1



The spread of facilities in oud-charlois explains where the most semi-informal surveillance (surveillance by someone who is close to the public space because of his profession (shop owner, etc)) is taking place.

In the grey areas some social safety is caused by the presence of inhabitants inside.

For this reason, the surveillance in the wolphaertsbocht is higher than average, regardless of the street activity.

scale 1:3000

3.4 Which public areas of Oud-Charlois need improvement?

Informal surveillance on street
criterion 1



The GPS data can be used to measure the actual informal surveillance on the streets. Because presence is only useful when it's possible to intervene, this map only shows soft mode traffic (car and public transport use is excluded).

In our research we are mainly interested in the routes the seniors take, than the destination of the trip.

Lifestyle comparison in routes (mainly green/ yellow) didn't show any remarkable results.

scale 1:3000

3.4 Which public areas of Oud-Charlois need improvement?

Closed curtains
criterion 1



For criteria 1: The Presence of other people, both people in and outside have a positive influence on the feeling of safety.

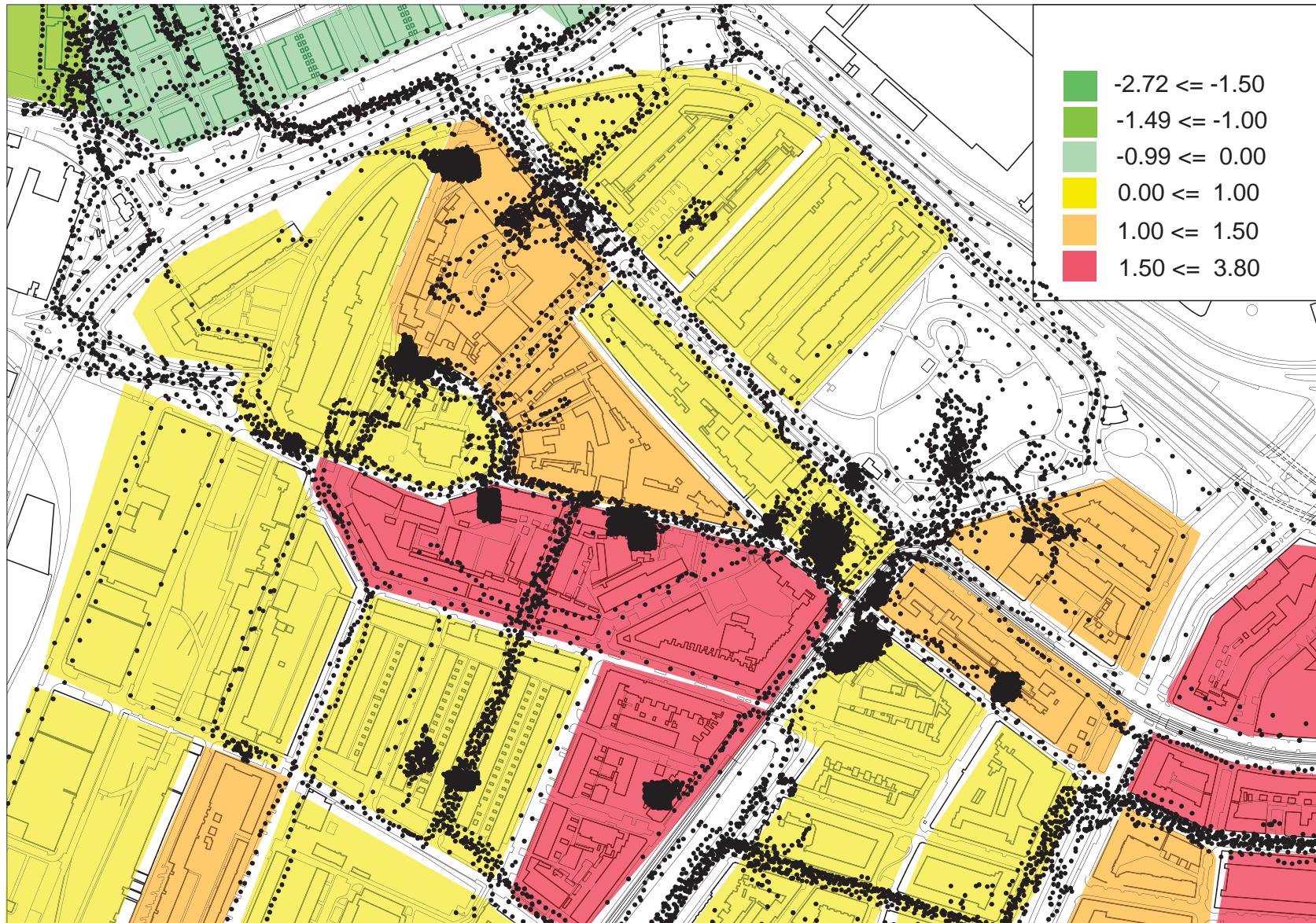
We stated that closed curtains occur more than average in oud-charlois than other neighbourhoods in the Netherlands.

Although ofcourse you cannot demand people to lower their wishes for privacy, but the visibility from inside to outside is an important factor for the amount of social control in a street.

Asking participants for possible reasons, stated that it was mainly done by households with a non-dutch cultural background.

3.4 Which public areas of Oud-Charlois need improvement?

Neighbourhood signaling system criterion 3



Combining the GPS layer with the Neighbourhood Signaling System (Buurtignaleringssysteem) of 2009, that Rotterdam uses as an indicator for impoverishment.

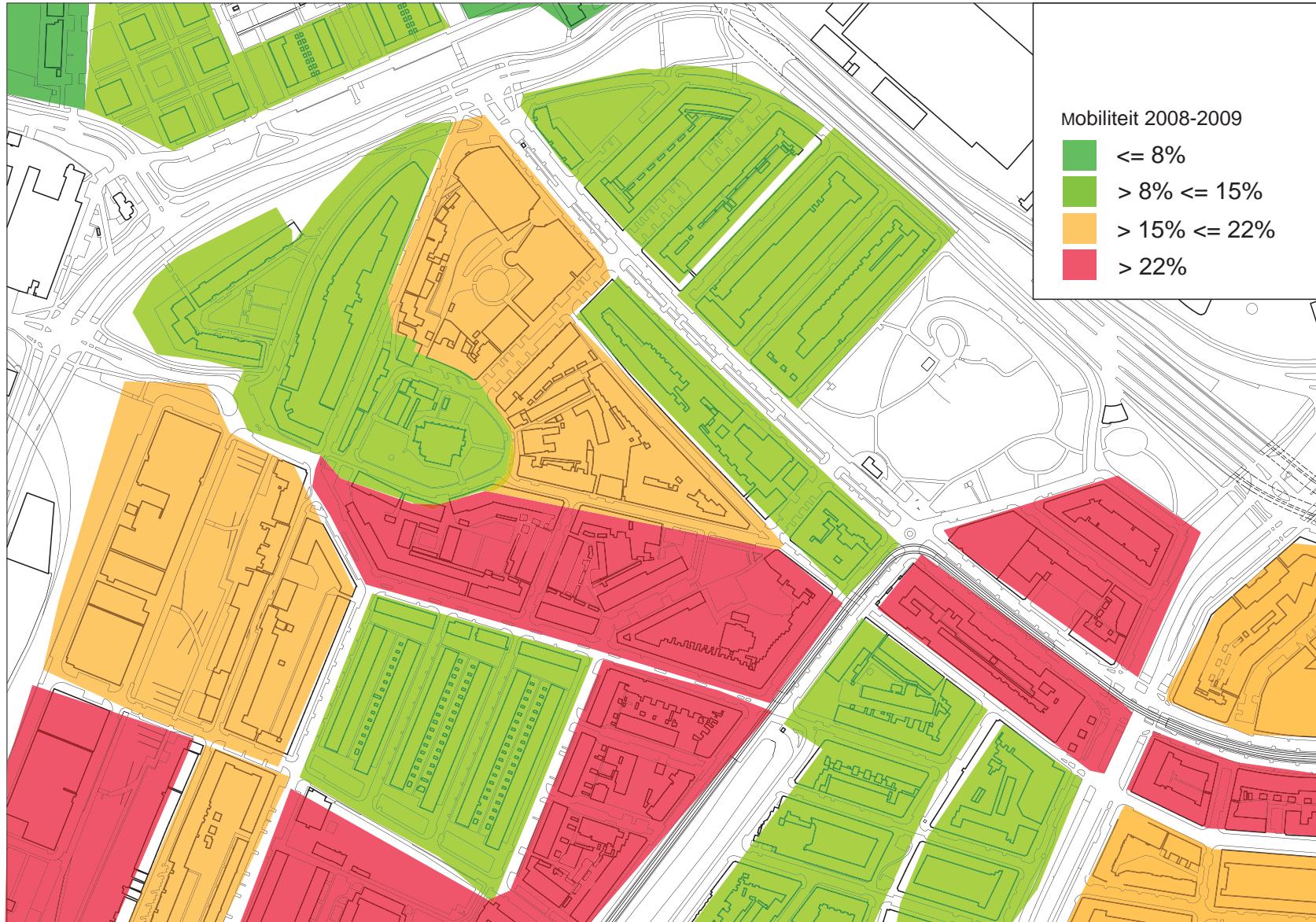
The index includes house value, moving tendency, nuisance, with several others. The map shows that the charloisse hoofd is doing very well.

In the visualisation a correlation between a low score and presence can not be found. Although some people state that they sometimes feel unsafe in the neighbourhood, the map seems to show that that doesn't affect their routes.

scale 1:3000

3.4 Which public areas of Oud-Charlois need improvement?

Moving tendency criterion 3



A low moving tendency is an indicator for satisfaction of housing and neighbourhood.

People that live in the same house and/or neighbourhood for several years tend to have a stronger relation with the neighbourhood and are therefore more involved.

The blocks that score high on buurtsignalering (red) also score high (red) on moving tendency. These blocks have the worst social coherence and need modifications the most.

3.4 Which public areas of Oud-Charlois need improvement?

Outdoor space ownership criterion 3



Oud-Charlois has quite a lot of public space like parks and other green spaces. But the GPS results show that these space aren't used a lot (see GPS).

Inside the blocks, most houses in Oud-Charlois either have private outdoor space, or collective outdoor space. With unclear responsibility the collective space often becomes an unused, unpleasant area.

Outside the blocks, on the streets however, space for neighbourhood activities is scarce. Car traffic and parking (white) seem main priority.

scale 1:3000

3.4 Which public areas of Oud-Charlois need improvement?

Opportunities for semi-public use
criterion 3



Pompstraat

zuidhoek



Frans-Bekkerstraat

Transition between private and public

The three visualisations show the transitions between private and public space in more detail. In some blocks on the Frans Bekkerstraat a small niche supplies a small transition zone.

Strictly, semi-public zones are just public. But these zones can provide space for more involvement (small gardens, bench where you can talk to neighbour) and create some distance from the private space, which may invite people to open their curtains more.

3.4 Which public areas of Oud-Charlois need improvement?

Masterplan: current situation



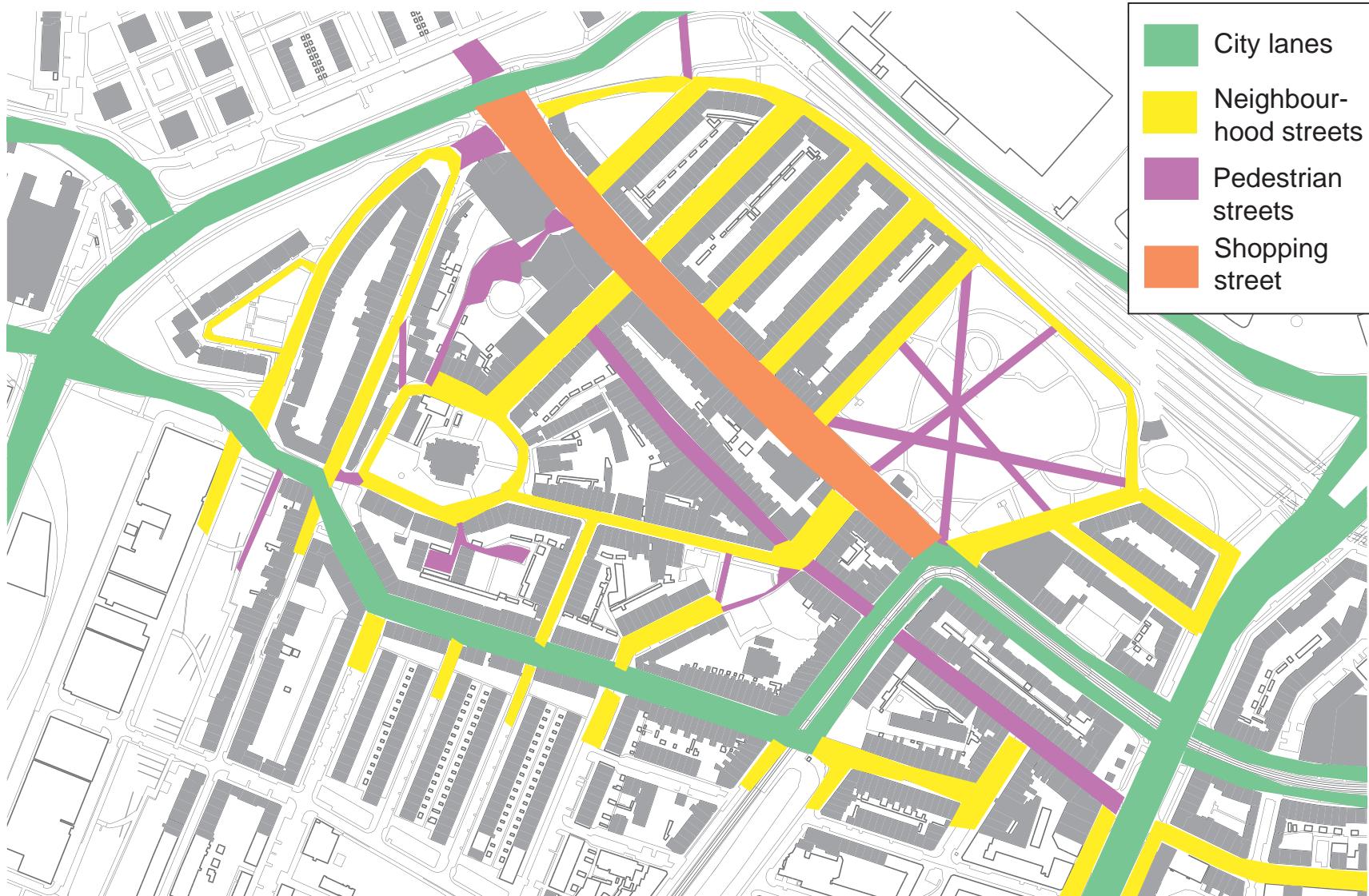
In the current situation, car traffic dominates the area. Only some alleys and park ways are pedestrian only and zebra paths & pedestrian friendly crossings are scarce.

Oud-Charlois has a quite introvert character, only local traffic enters the area. From the busy Maastunnel you have to take the Dorpsweg, take the Wolphaertsbocht and then a fourth turn to enter the neighbourhood.

scale 1:3000

3.4 Which public areas of Oud-Charlois need improvement?

Masterplan: future situation



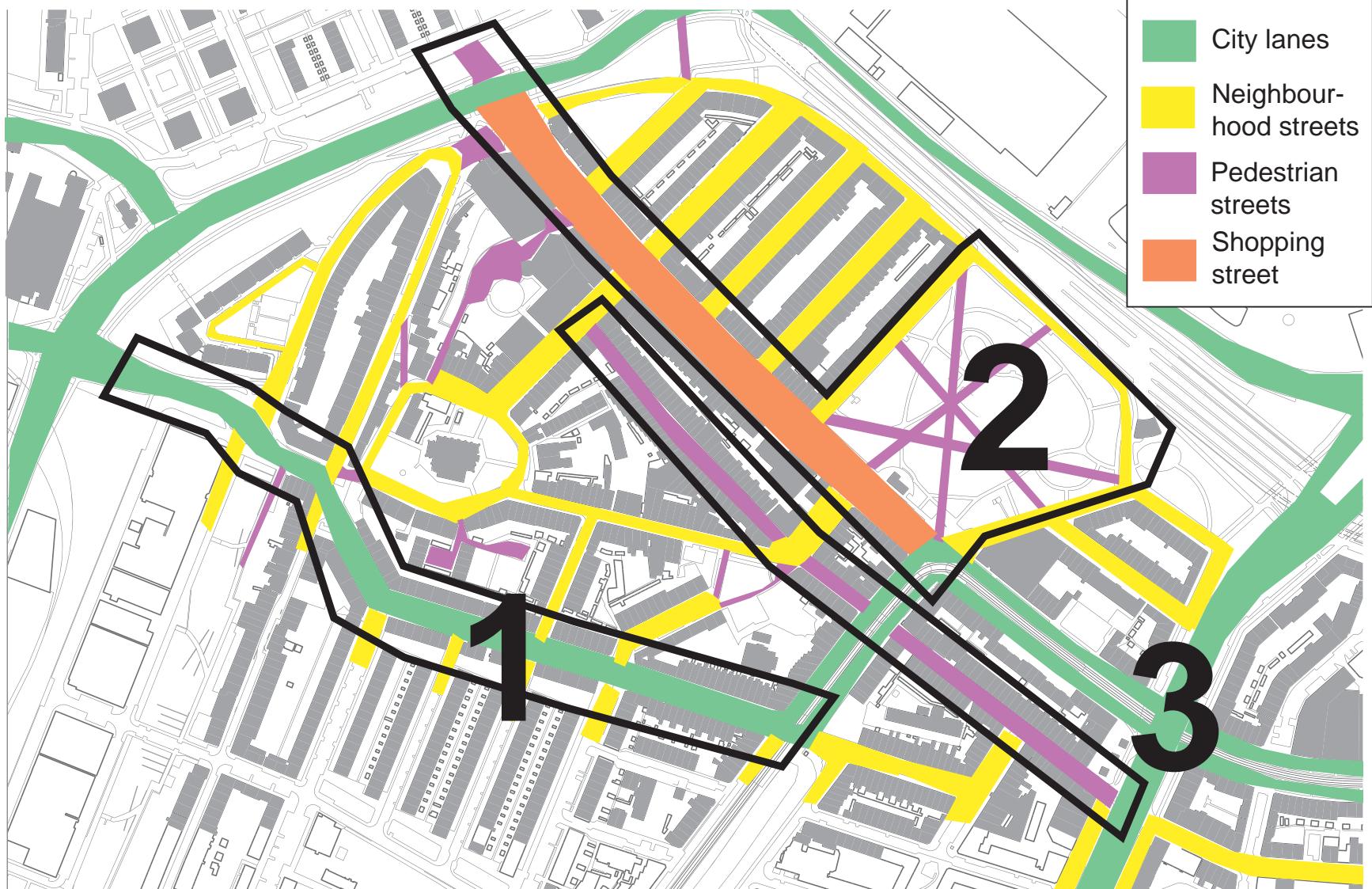
In The proposed situation, several small alterations have been made.

The Wolphaertsbocht has been profiled as a shopping street, a pleasant space to stay. The use of the road for regional traffic will be discouraged.

The Katendrechtse Lagendijk is transformed into a pedestrian street. The GPS results show a large turn in tracks, a pedestrian street can invite more pedestrian movement in the area and therefore more social safety.

3.4 Which public areas of Oud-Charlois need improvement?

Masterplan: three street designs



EXPLANATION OF PROJECT CHOICE

Three public areas that have been chosen all are of a different type of street, but all three focus on the entries to the area, both for soft and fast mode.

This approach focusses on the redesign of a small amount of streets that cause an improvement on a larger scale, rather than making several interventions spread over the entire area.

- 3.1 What are the criteria for a social safe neighbourhood?
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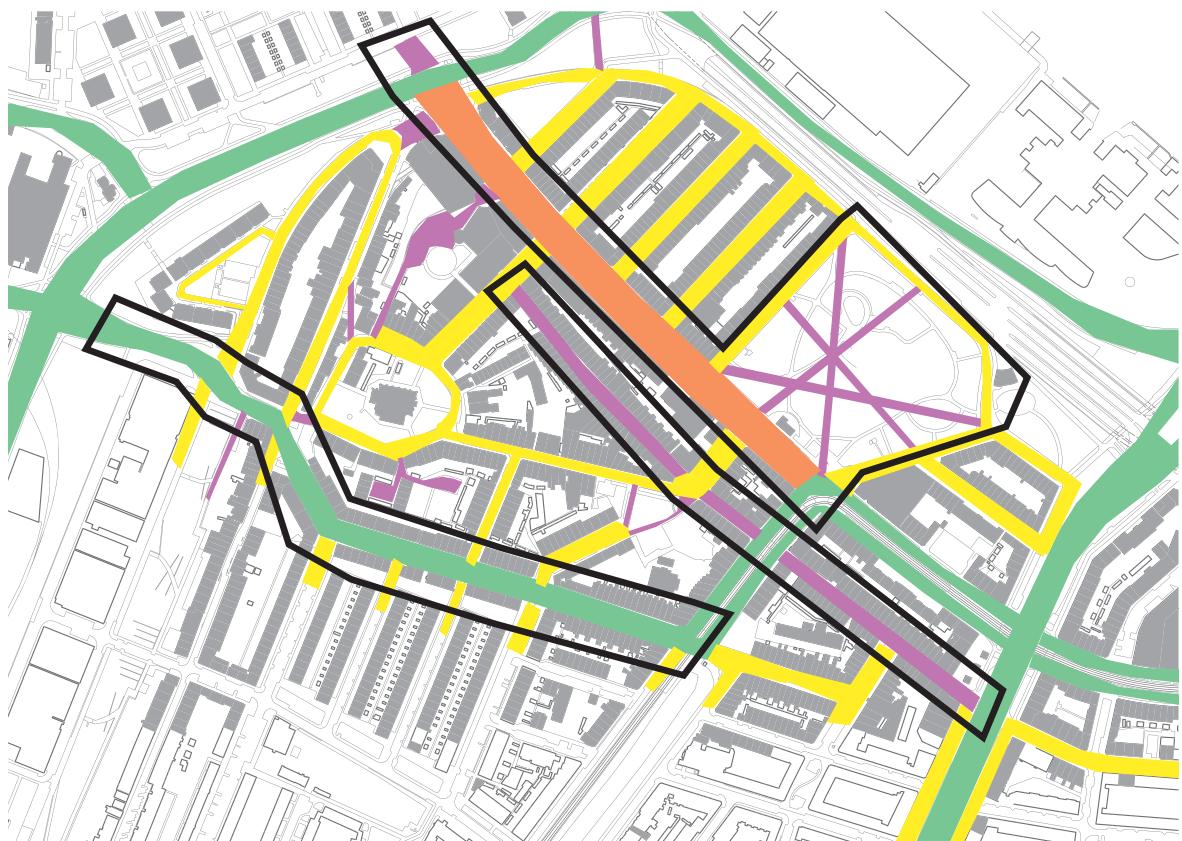
3.5 How can we improve these public places?

To answer the question: "How can we improve these public areas?", we as a group focus on three selected streets/areas, and come out with three design proposals to best address the possible solutions to the issues stated.

The three selected streets are:

1. Frans Bekkerstraat
3. Wolphaertsbocht
3. Katendrechtse Lagedijk

Our aim is to achieve better social safety in Oud Charlois by the means of participation of our focus group of seniors. By doing so, we re-design and re-intervent the focused areas/streets, making them more accessible to the seniors, as well as to the public. To answer these questions we hope to create a better social safety condition for both the residents and the seniors, and at the same time stimulate social interaction. The design addresses the possible solution to the criteria stated in the previous chapter, criteria 1 and criteria 3, which is **presence of other people** and **involvement/responsibility of neighbourhood**.



1.Frans Bekkerstraat



scale 1:500

1. Frans Bekkerstraat

Analysis

The Street

Problems regarding both

1. Feeling of presence of other people
3. Involvement of neighbourhood



Problems stated in street view

Analysis of space ownership

Transition between the public and private is very harsh, very little possibilities for semi-public use

Barrier for public space usage of inhabitants:
closed curtains, little involvement in public space,
no outdoor activities



1. Frans Bekkerstraat

Analysis

The Houses

1. Feeling of presence of neighbours

Ability to see what's happening on trottoir

+

-\+

-



1. Presence of the elderly: public space accessible for seniors from their houses on ground floor

Scootmobile rolator friendliness

+

-\+

-



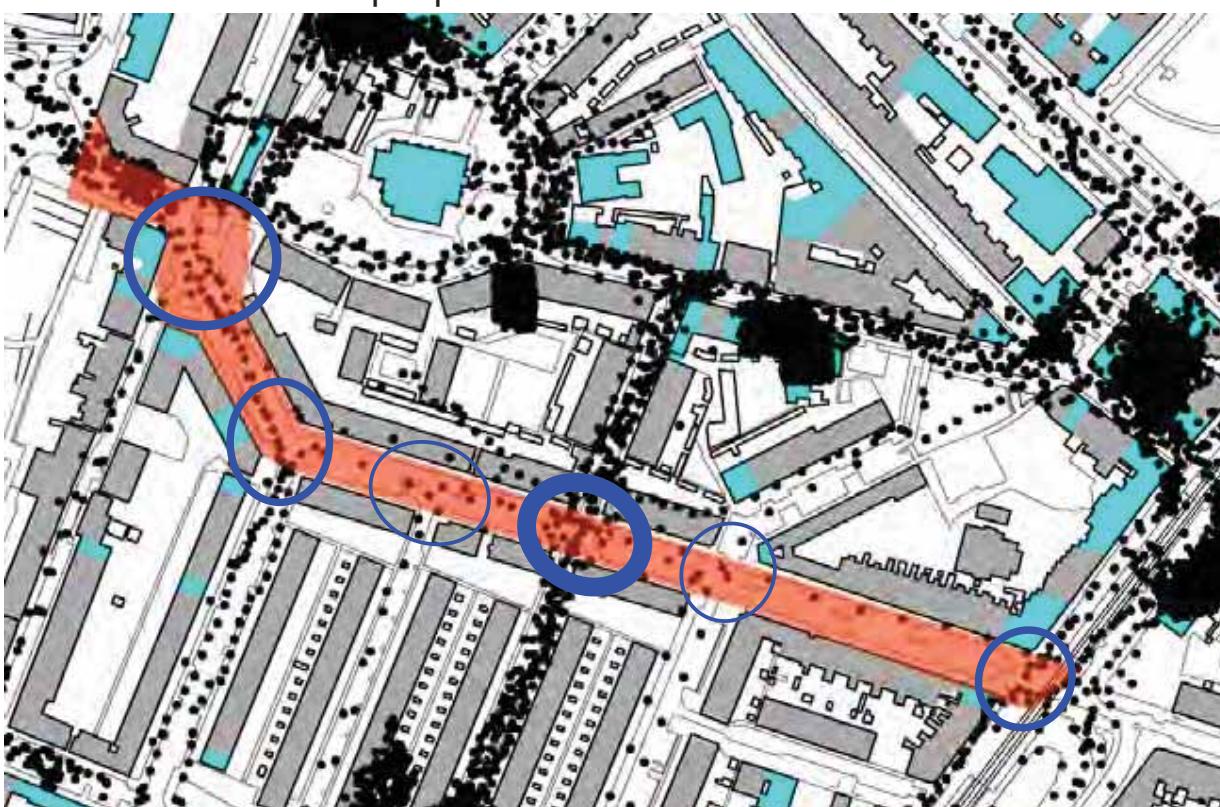
mainly caused by high amount of doorsteps

1. Frans Bekkerstraat

Analysis

The GPS results

1. Presence of other people:



Conclusion

In the masterplan, the Frans Bekkerstraat connects the neighbourhood streets with the regional roads:
causing heavy car traffic.

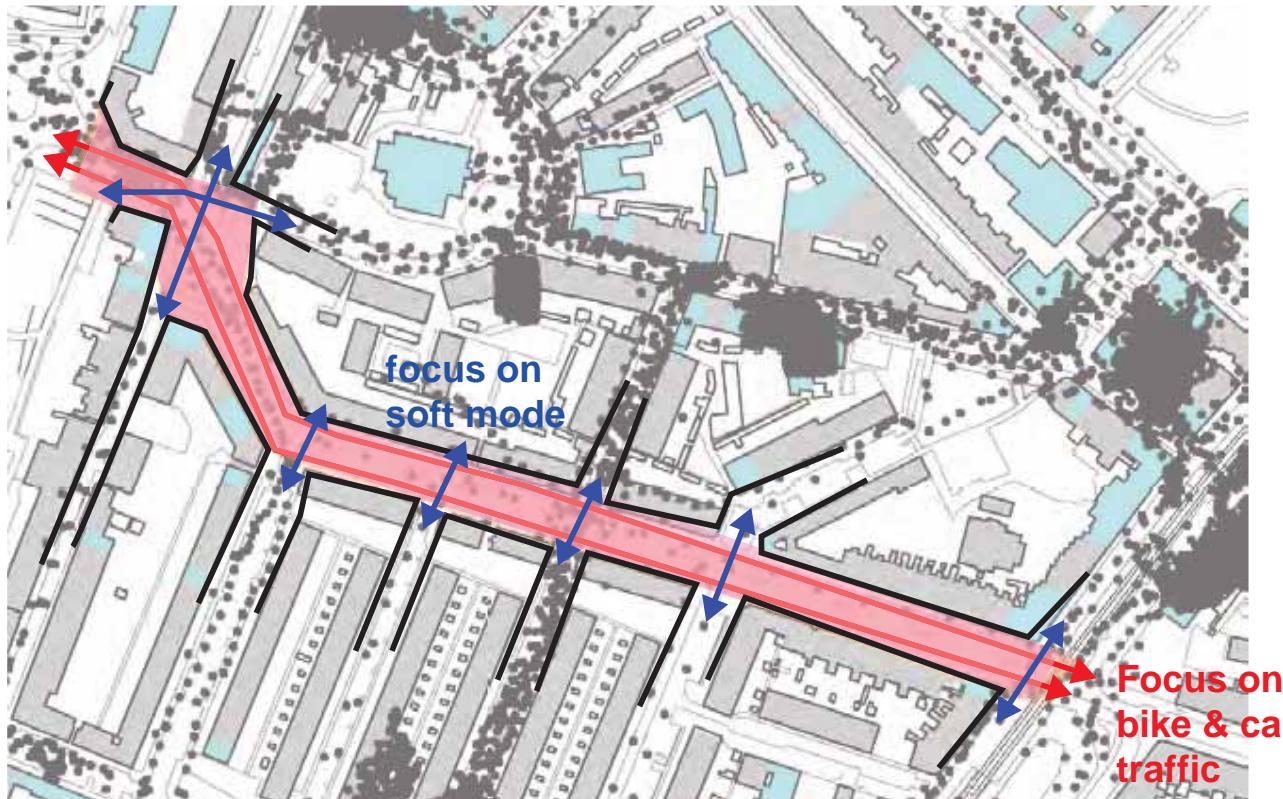
The GPS results show significant north-south
pedestrian movement.

The current street and house design does not
contribute to a more social safe usage.

1. Frans Bekkerstraat

Analysis

The Concept



Place to pass

- focus car traffic in east west direction
- introduce cyclist path in east west direction
- focus on soft mode traffic in north-south direction

special attention towards the crossing points:
pedestrian traffic higher priority (zebra)

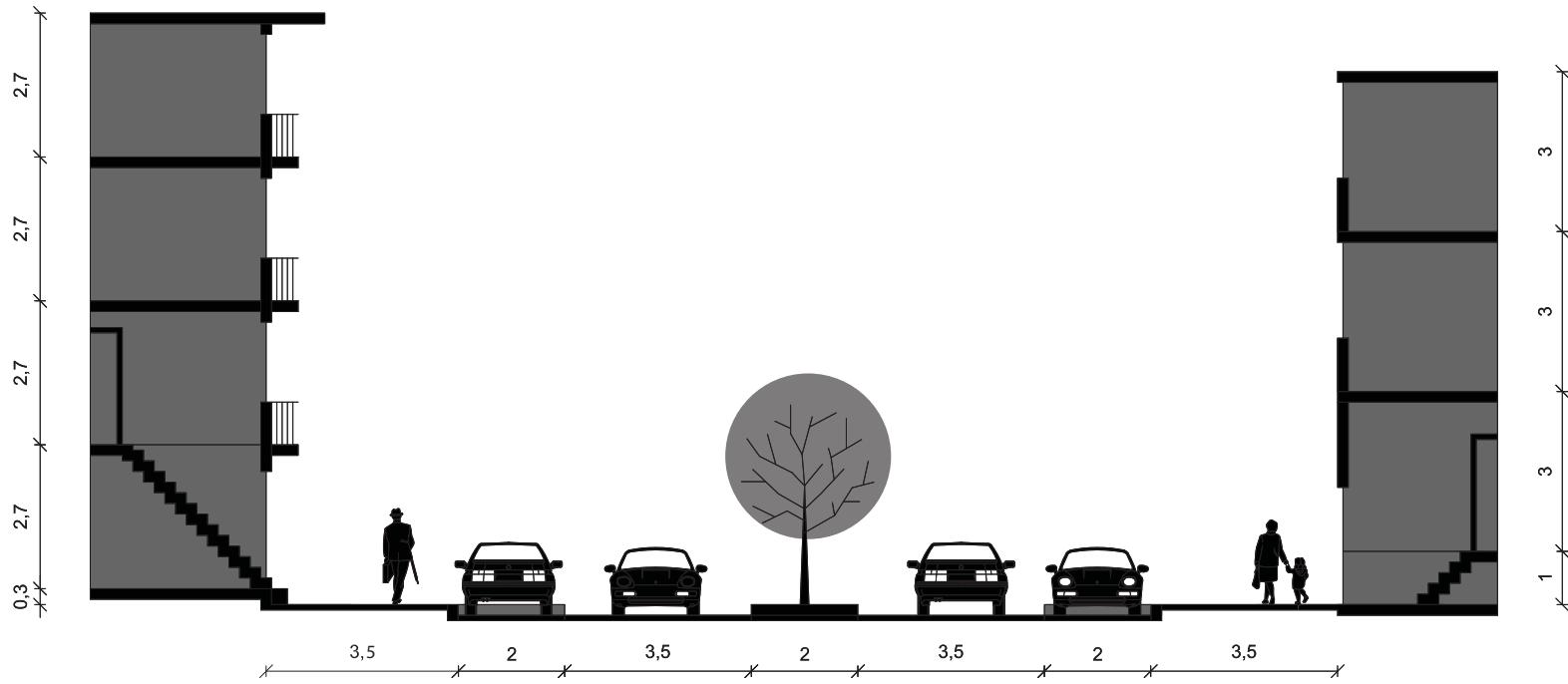
Place to stay

- introducing 'stoepjes' for semi-public use for neighbours
- introducing places for short stay for passers-by on trottoir

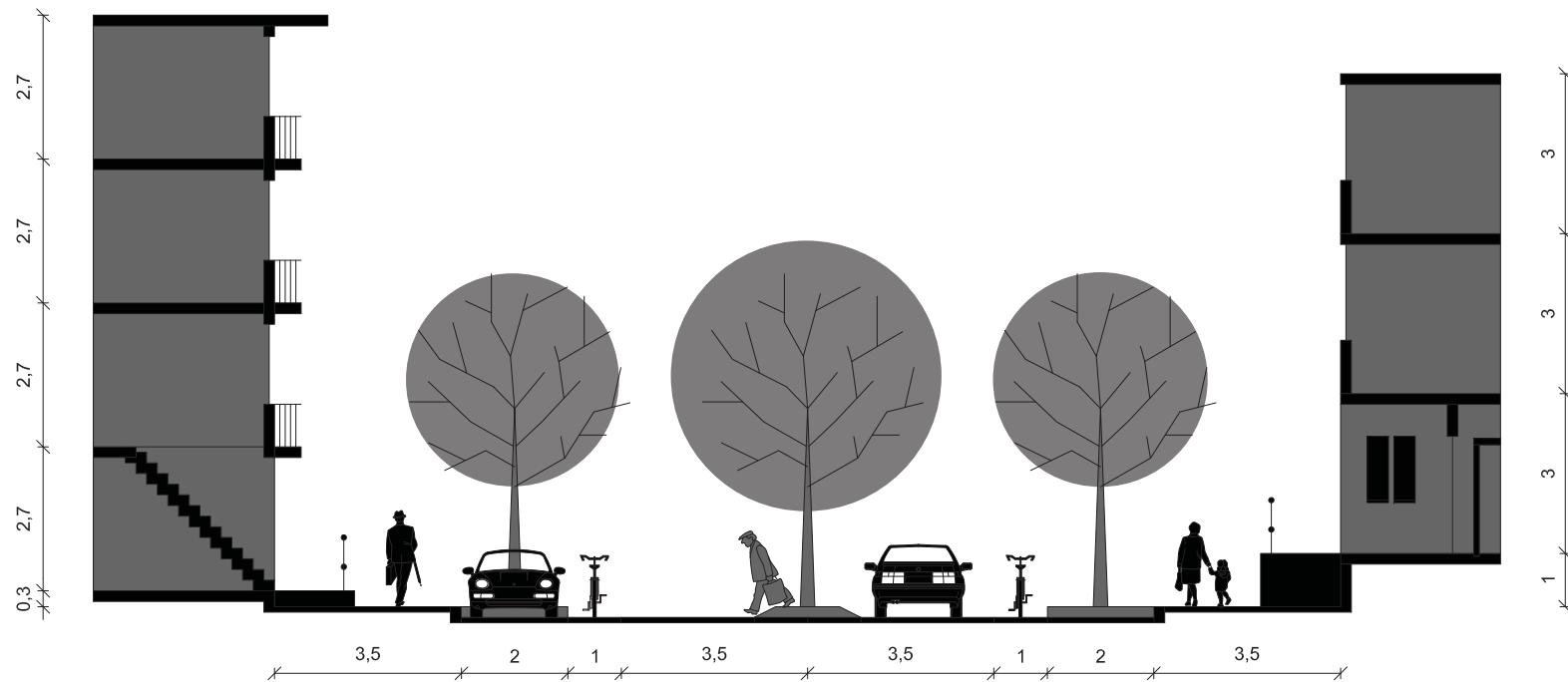
1. Frans Bekkerstraat

Section study & Design proposal

Current

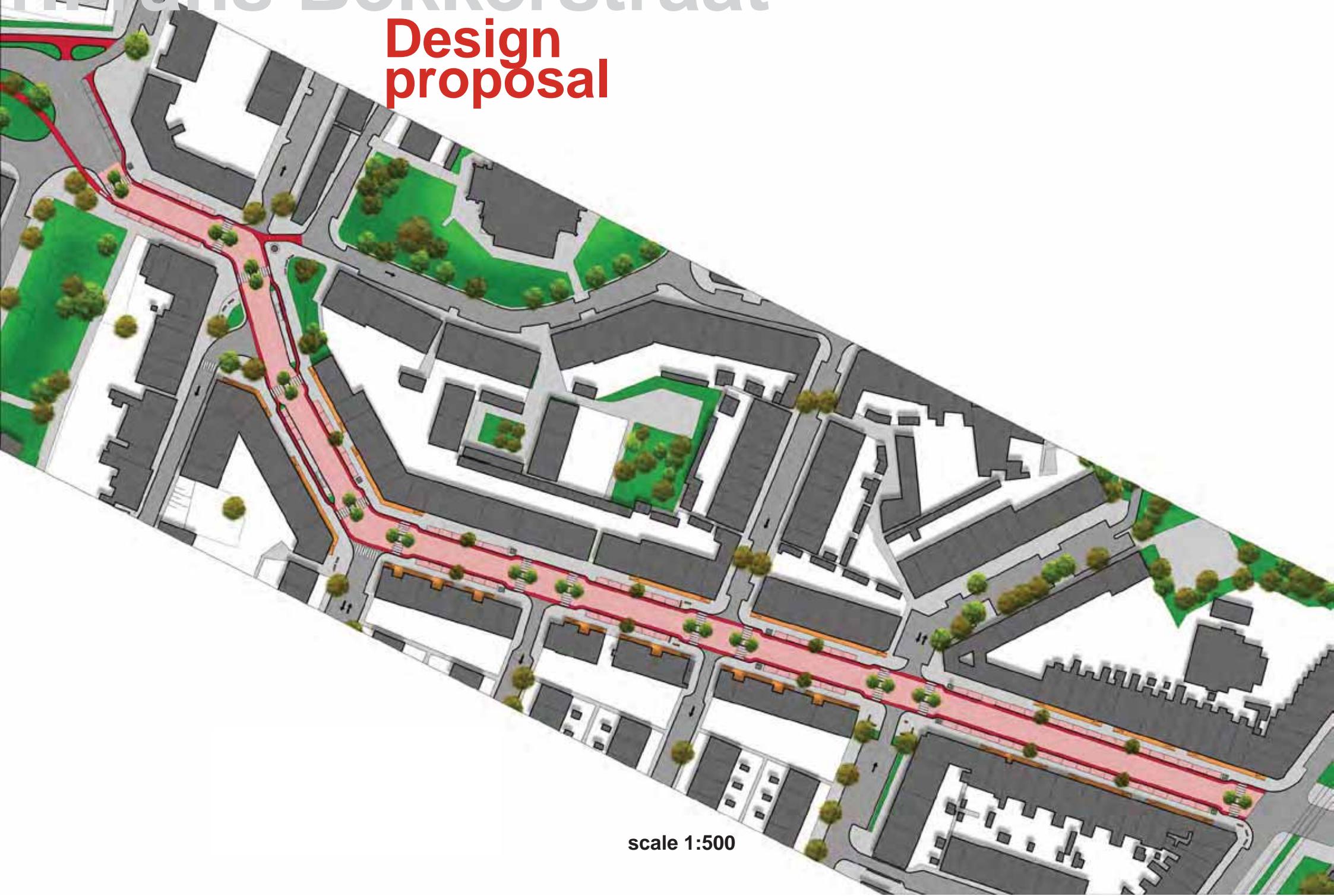


not to scale
Proposed
design



Trans Bekkerstraat

Design proposal



scale 1:500



1. Frans Bekkerstraat

Design proposal



Current



Proposed
design

2.Wolphaertsbocht

Current state



Proposed design



2.Wolphaertsbocht

Analysis

OBSTACLES TO VIEWS AND MOVEMENT:

1. The side walk is too narrow.
2. There are too many obstacles placed along the sidewalk, obstructing pedestrian movement, especially for scootmobile.
3. The rain shade above the shops visually disconnected the residential living above and the pedestrians.



2.Wolphaertsbocht

Section study& Design proposal



Current



not to scale

Proposed

CURRENT SITUATION:

The green division situated in the middle of the two roads serves as a barrier to the northern and southern parts of Oud Charlois. It devided the commercial street into two parts, minimalises interactions between both street users. It is also a barrier to views for the residents living upstairs.

The narrow pedestrian paths pressurize the street users to move from point to point, they do not stay longer, hence no social interations and no social contacts.

IDEAL SITUATION:

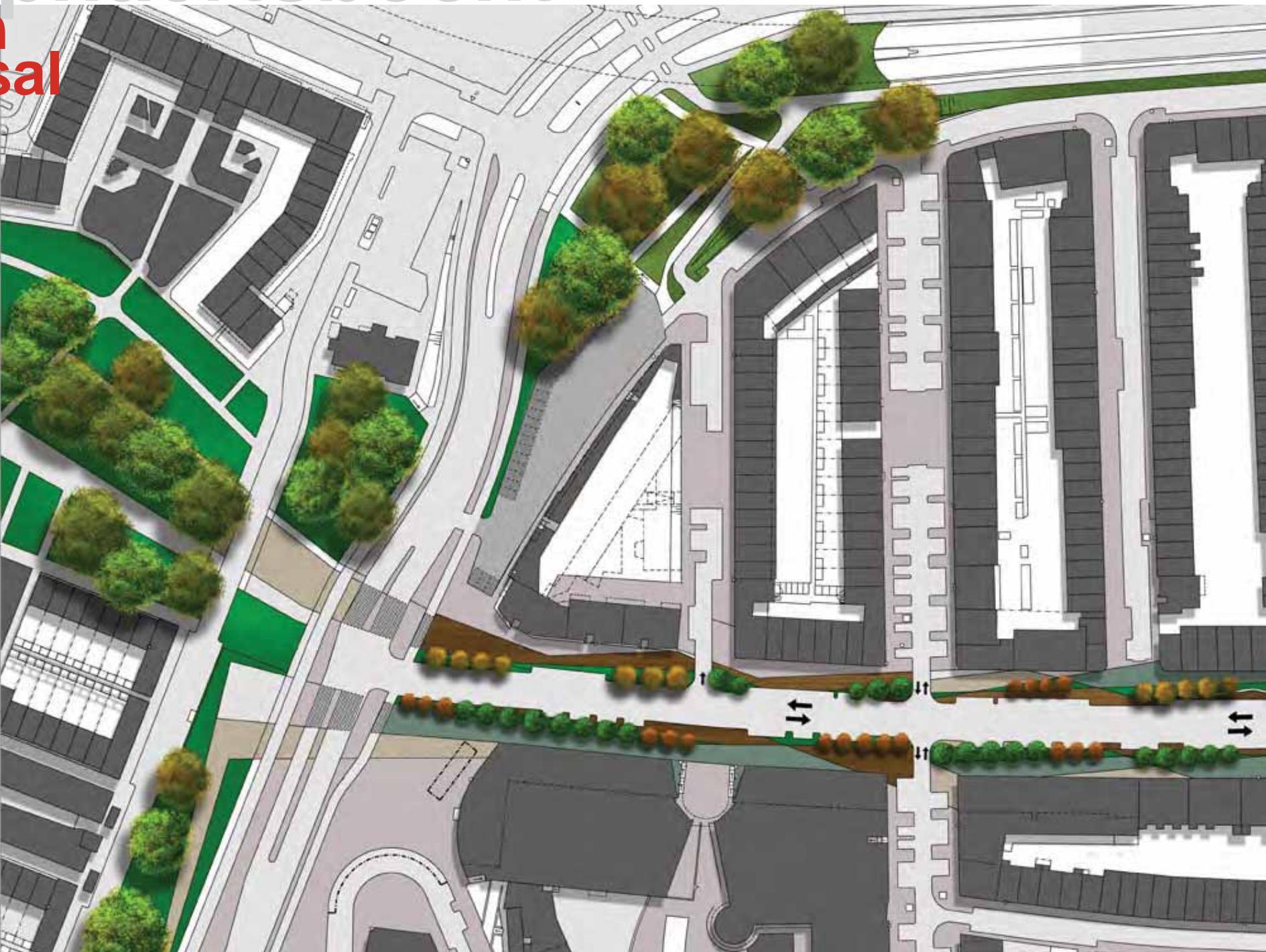
Combining the two seperating streets into one, widen pedestrian paths, introducing smaller green belts along pedestrian zones.

Remove all obstacles that obstruct views from the residents upstairs, ie: shades and big trees.

Wider pedestrian zones allow more moving spaces, encourage elderly to stroll in group. Ie: enough space for two scoot-mobiles to move though without blocking other users.

2. Wolphaertsbocht

Design proposal



scale 1:1000

2.Wolphaertsbocht



2.Wolphaertsbocht

Design proposal



Proposed design

2.Wolphaertsbocht

Design proposal

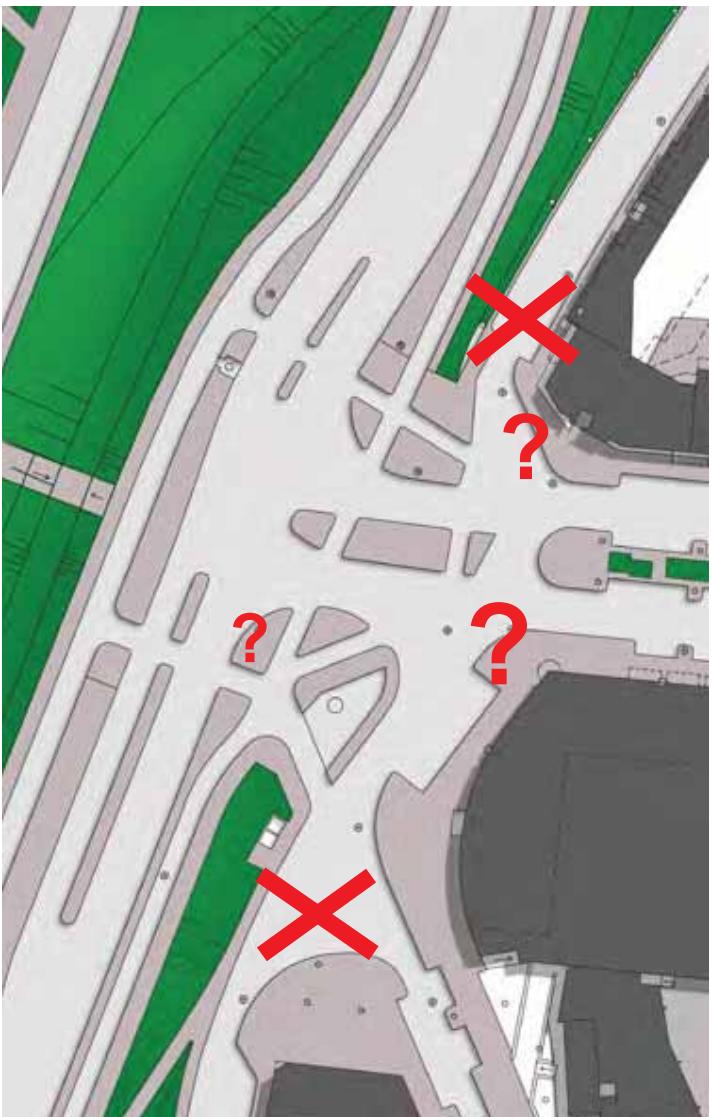


Interventions

1. West entrance of Wolphaertsbocht street
2. Doklaan
3. Grondherendijk
4. Sidewalks of Wolphaertsbocht street
- 5&6. Park

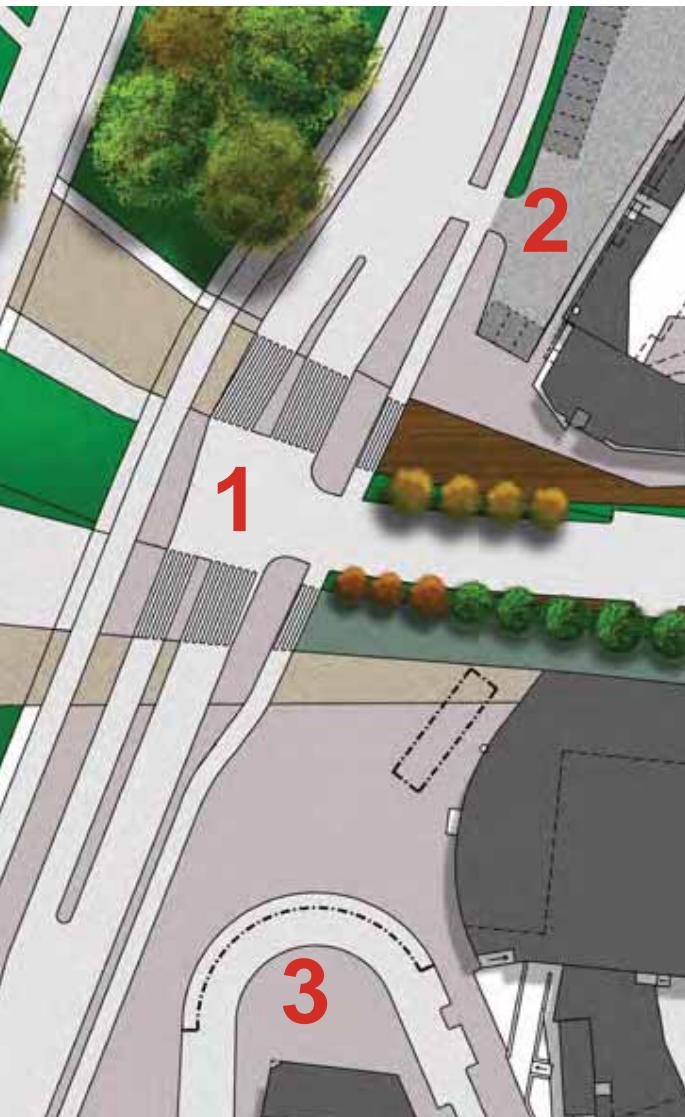
2. Wolphaertsbocht

1,2&3.



scale 1:500

Current



Proposed



Presence of other people

- Heavy traffic loads (pedestrian and car) at the junction
- Too many isolated islands at the crossing, creating confusion to the users
- Not enough rooms on the sidewalk for pedestrians to stroll and stay
- No directional pattern for pedestrians



Involvement/ responsibility of neighbourhood

- Very little social interaction happening on the street

Interventions

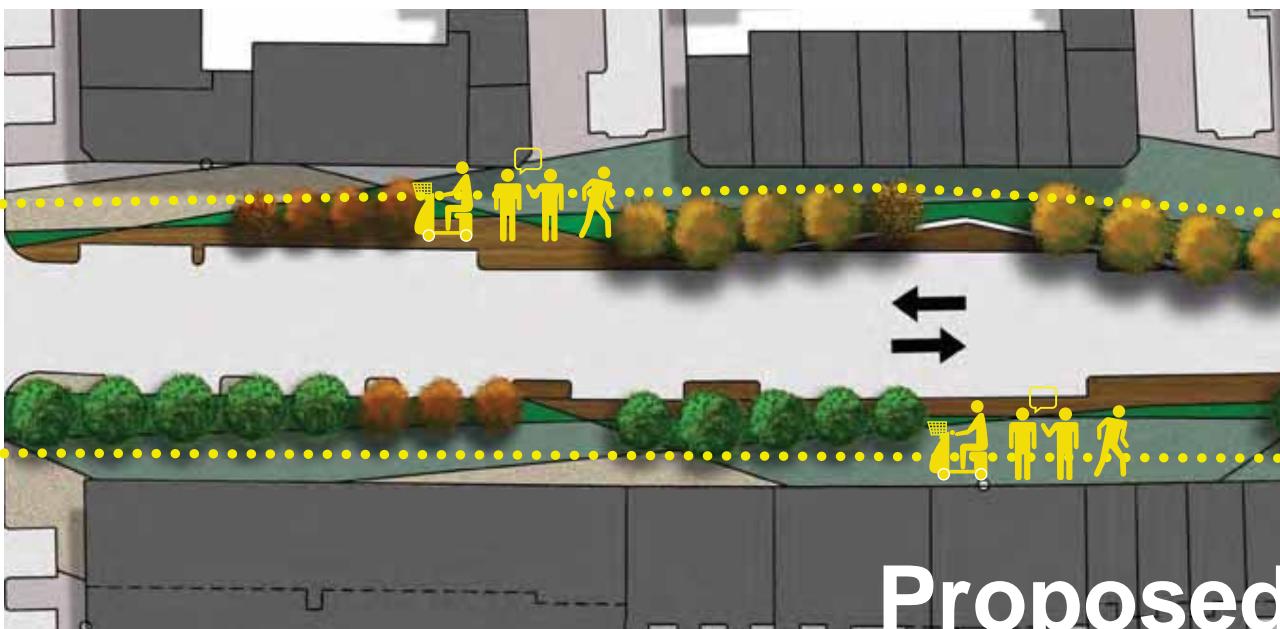
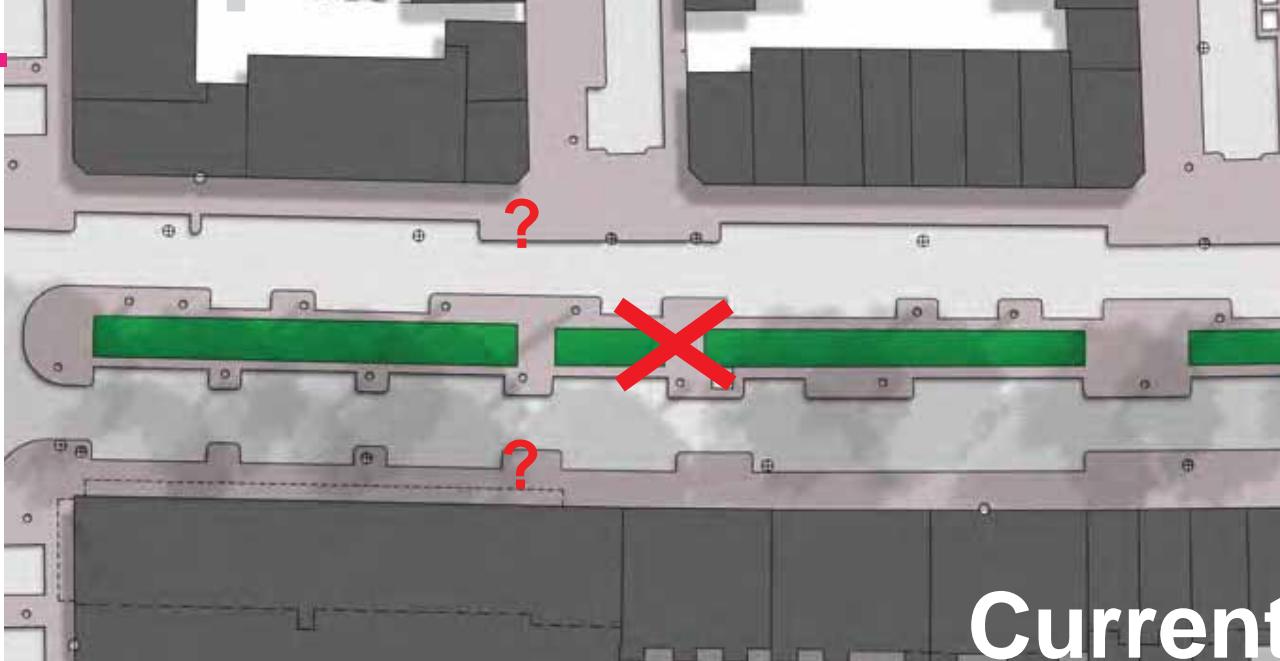
- Introducing a more straightforward pedestrian crossing, connecting the northern part of Oud-Charlois with Wolphaertsbocht street, enhance pedestrian movement.

- Disconnecting Doklaan with Wolphaertsbocht street, by creating a parking lot with 27 parking spaces for Wolphaertsbocht users, by doing so, it reduces the traffic chaos thus provides better space for pedestrian.

- Disconnecting Grondherendijk with Wolphaertsbocht street, reducing traffic heaviness thus creating a more pedestrian friendly zone or a plaza for pedestrian.

2. Wolphaertsbocht

4.



Presence of other people

- Semi-informal surveillance present in the shops

Interventions

- Increase the side walk from the existing 4.2m (without parking) and 2.3m (with parking) to 9.7m (without parking) and 8m (with parking). Incorporating potential green strips into the side walk, with various floor patterning with the same finished floor level, increase aesthetic quality and accessibility. Therefore encourage people to stroll and stay longer on the pedestrian zones.



Involvement/ responsibility of neighbourhood

- Very little social interaction happening on the street
- No sense of involvement from the users of the street

Interventions

- Remove the barrier in the middle of Wolphaertsbocht street, combining the two separate streets into a main two-way street.
- Remove tall >6m trees from the middle partition, introducing smaller <5m trees, increase visual connection of both sides of the Wolphaertsbocht street.

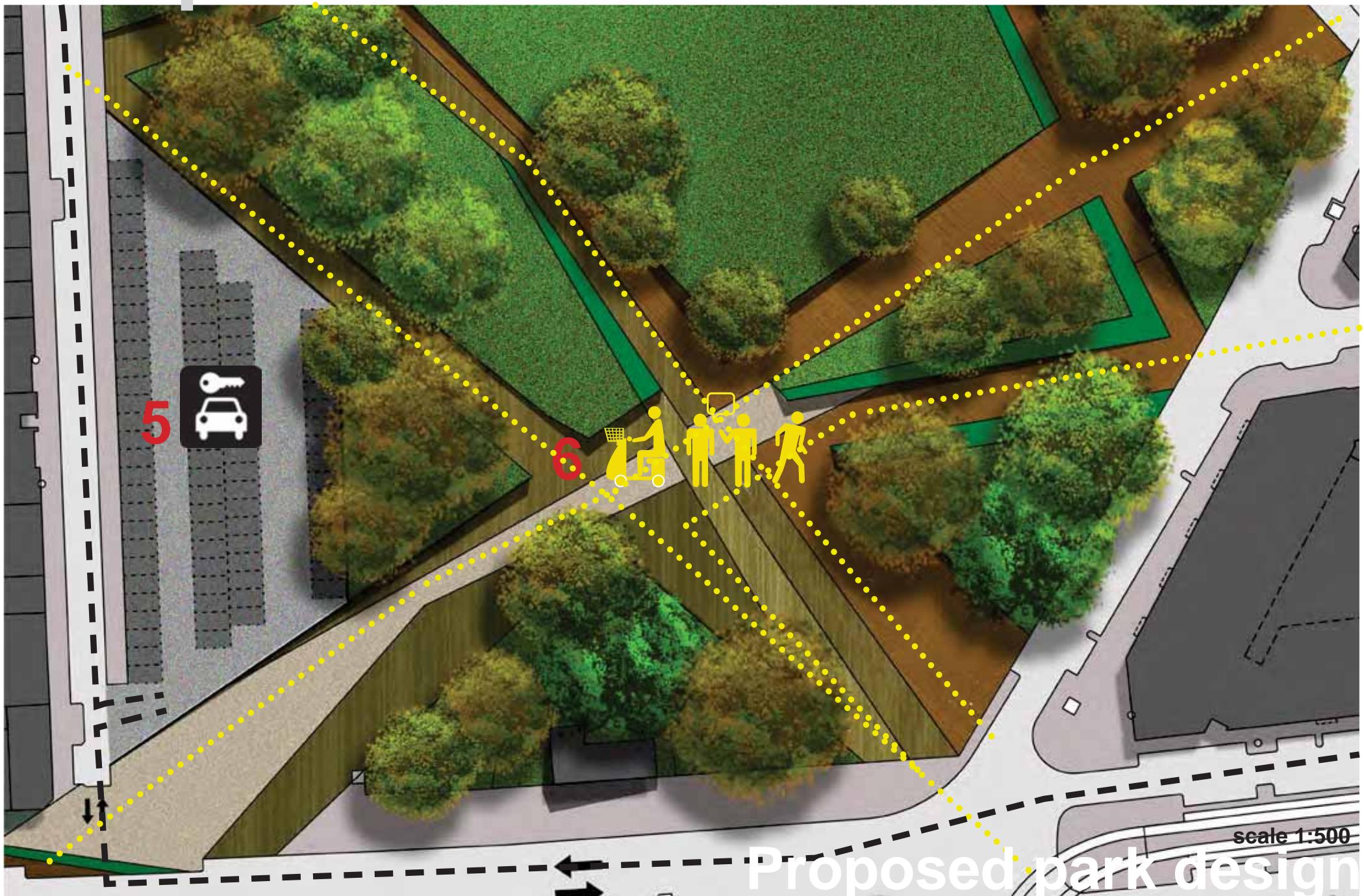
2.Wolphaertsbocht

5&6.PARK



scale 1:500
Current
65

2.Wolphaertsbocht



2.Wolphaertsbocht

5&6.Park



Presence of other people

- No semi-informal surveillance present in the park
- Little formal surveillance, lack of people using the park
- Feeling of presence of other people low because of unplanned planting of trees as a barrier



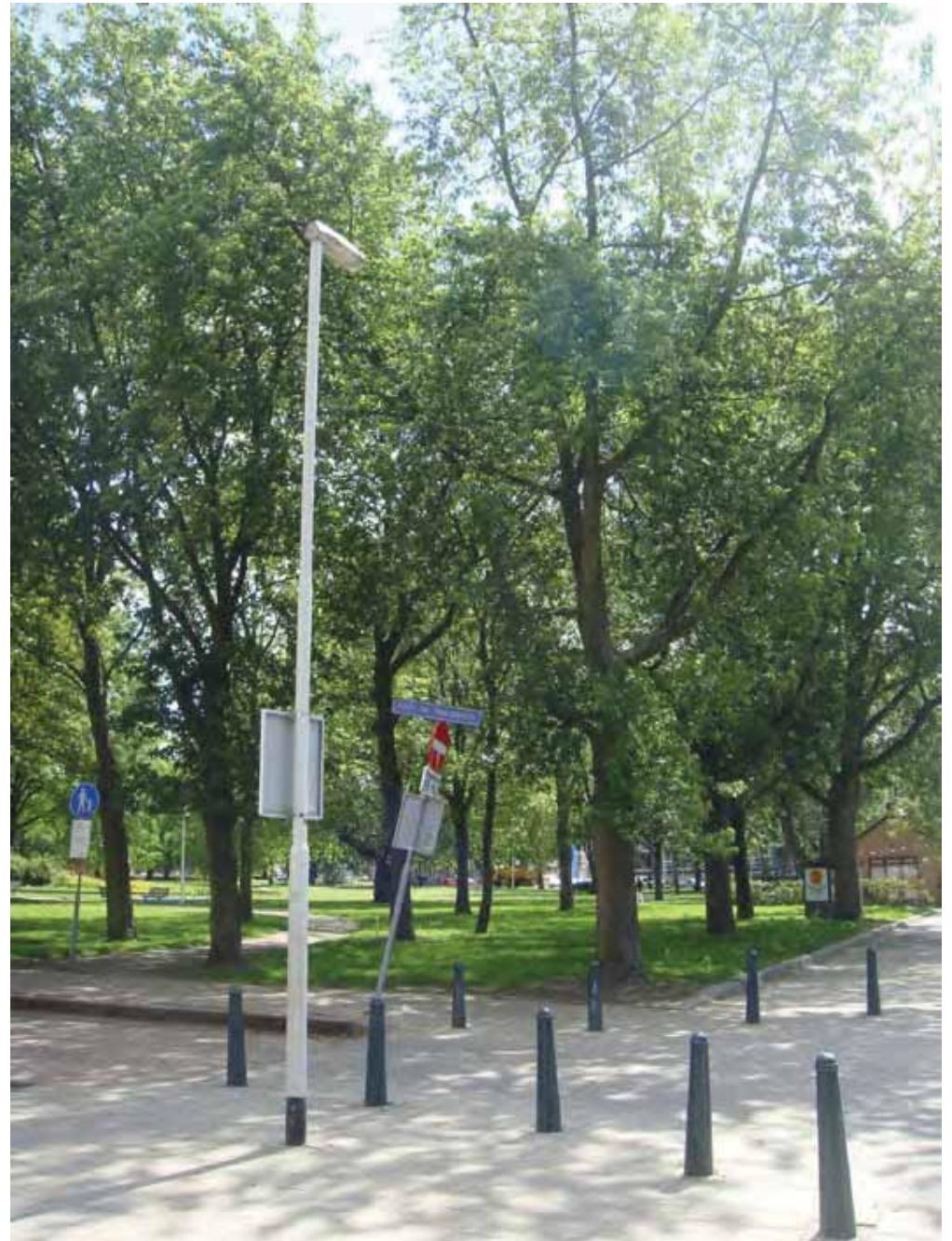
Involvement/ responsibility of neighbourhood

- Very little social interaction happening in the park
- No stimulation use of park
- Unattractiveness of the park
- Lack of maintenance

Interventions

- Introduce a parking lot with 86 parking spaces at the south west part of the park, encourage Wolphaertsbocht users to walk on the street, thus stimulate social interaction, providing better social control.

- Redesigning the park, replacing the curvilinear circulation by more straight forward clean cut approach. It visually connects both eastern and western part of the park, increase the usage of the park and encourage park users to stroll and stay longer in the park, therefore both park users and street users are visually connected, providing social safety for both parties.



Current
67

2.Wolphaertsbocht



2.Wolphaertsbocht



Conclusion

By introduce two parking lots with a total of 113 parking spaces at the north and south of Wolphaertsbocht street, replacing the existing 86 parkings that are being removed from the street, encourage Wolphaertsbocht users to walk on the street, thus stimulate social interaction, providing better social control.

The advantage of having parking lots on both end of the street also stimulates seasonal activities, ie: weekend market and events. Often outdoor market requires the closing of the street, then market goers can reside their vehicles at the parking lots located at both rear end of the street, and walk to the market. Furthermore the wide sidewalk allows pedestrians to stay longer on the street.

3.Katendrechtse Lagedijk



Current



Proposed design

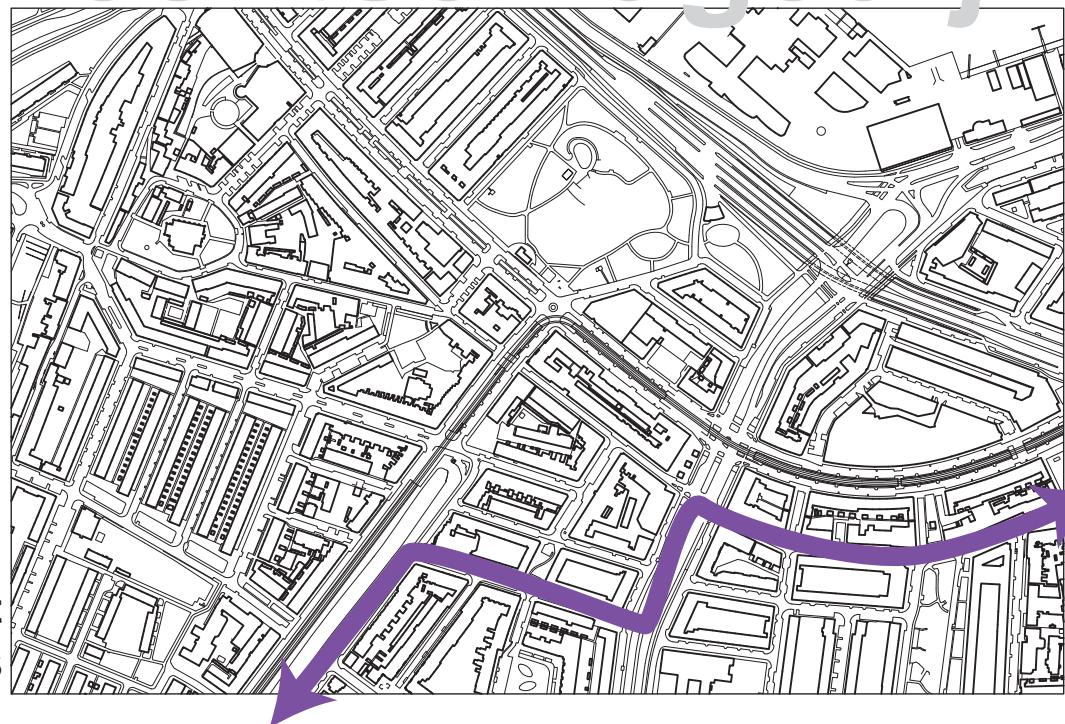
3. Katendrechtse Lagedijk

Analysis

The GPS results

1. Presence of other people

Current movement patterns



Desired movement patterns



Looking at the GPS results we see a lot of people taking a turn at the Dorpstraat. We want people to use the other streets as well. One of them is the Katenrdrechtse Lagedijk, which will be shown in this paragraph.

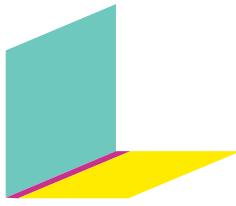
We try to make the street more attractive and accessible for seniors by the use of the criteria.

3. Katendrechtse Lagedijk

Analysis & Design proposal

Current

Small transition zone
→ No semi public place to show involvement



Steps before entrance
→ Poor accessibility



Cars in the street
→ Not attractive for yellow/green people



Proposal

 Large transition zone
→ Semi public place to show involvement



 Entrances on street level
→ Good accessibility



 Exclusion of cars
→ Quiet street, attractive for yellow/green people



Typology

Quiet street

Attracts people with yellow or green lifestyle

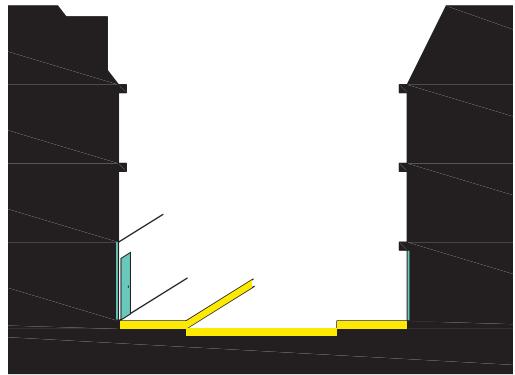
Place to pass

3. Katendrechtse Lagedijk

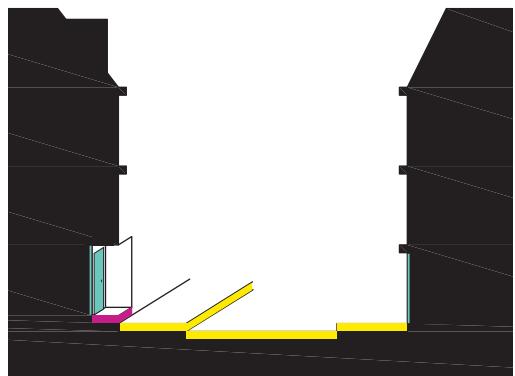
Katendrechtse Lagendi k

1:5

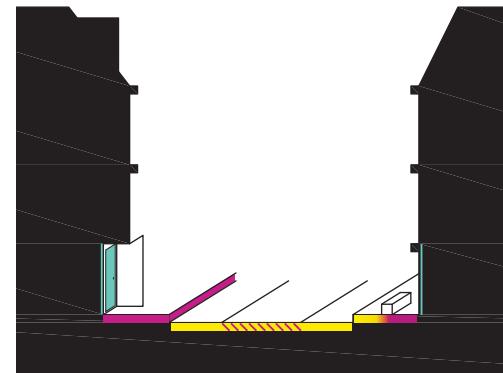
- private
- transition zone
- public



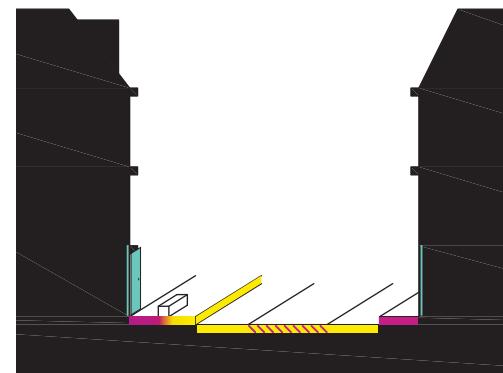
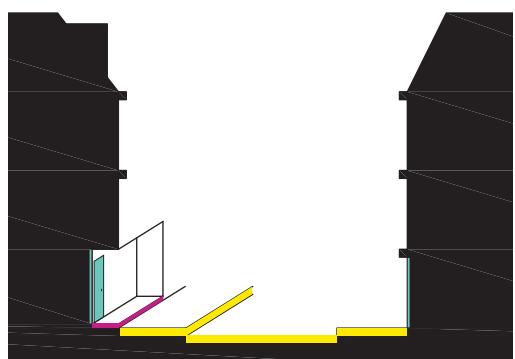
Section with no transition zone



Section with small transition zone



Analysis & Design sections



3. Katendrechtse Lagedijk

Interventions



Selected areas for trash cans and bicycles

Cars excluded from the area

more green added

removing most steps to entrances

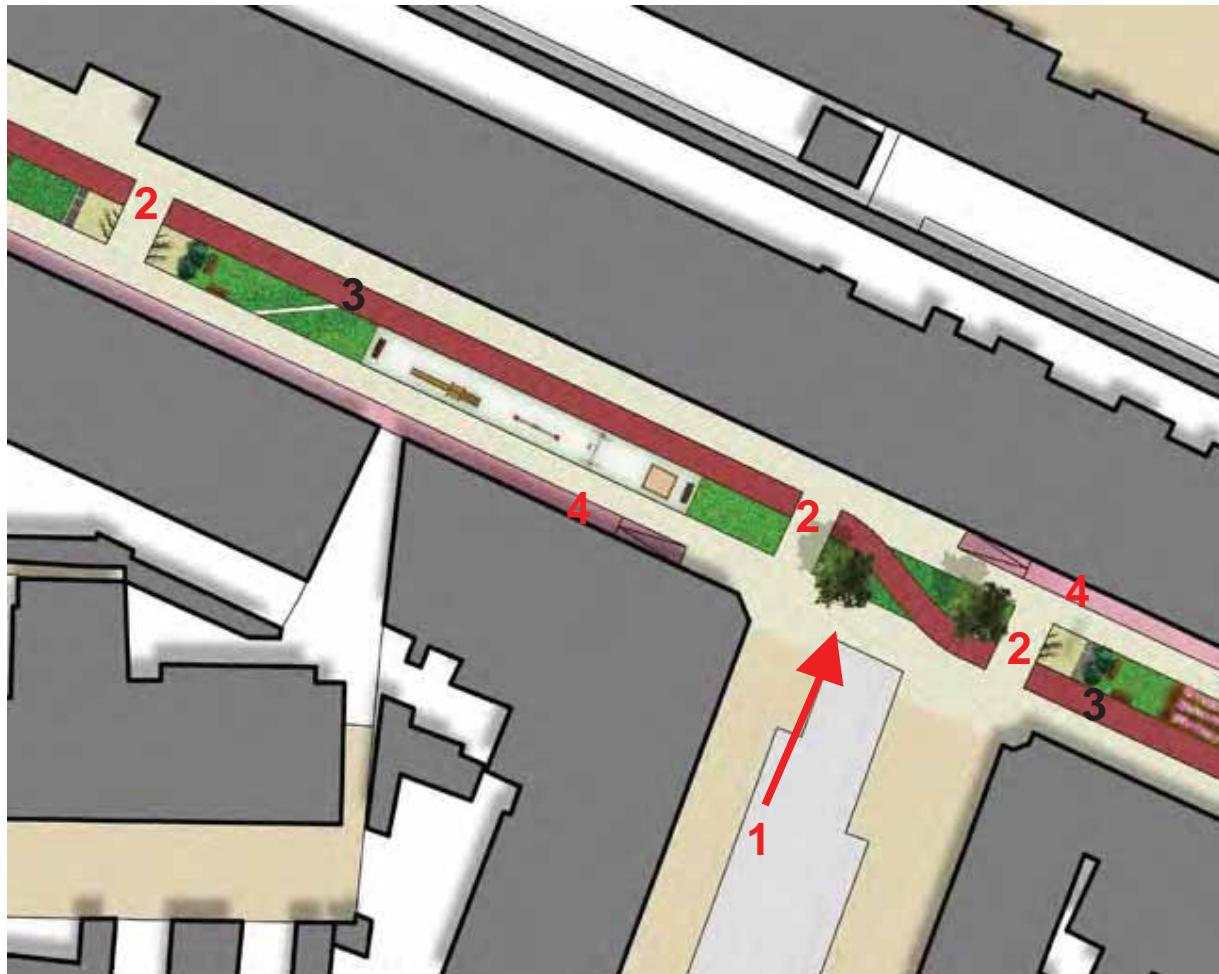
3. Katendrechtse Lagedijk

Design proposal



scale 1:300

3. Katendrechtse Lagedijk



1 View on trees from other streets

2 Wide pedestrian crossings

3 Path for cyclists and scoot-mobiles

4 ‘Stoepje’ as semi-informal transition zone where people can show involvement

3. Katendrechtse Lagedijk

Design proposal



Proposed design

3. Katendrechtse Lagedijk

Design proposal

One of the important goals of this redesign is making the street attractive from the Dorpsstraat. People that originally took a left turn, hopefully will now move straight ahead into the Katendrechtse Lagedijk.



4. Evaluation

The course took twelve weeks, and after these weeks we can now look back and evaluate the course itself as offered by TU and Veldacademie, and our approach as a group. These weeks were concluded with a final presentation, where we got some remarks that we will mention.

The course

This election was called 'Urban design' which caused some confusion in the beginning when we heard this course consists mainly of research and just the last two weeks designing. Also we had to work in Rotterdam, something we did not know in advance. But the use of the upcoming GPS technique sounded very interesting, being actually able to see movement patterns of people made us curious. In the first week we helped a parallel group in Delft with their GPS research, because of not enough GPS devices. After this, in the third week we could finally start our own research by handing out the GPS devices. Since we had to wait another week for the results we felt our process was very slow, unlikely to what we were used to in other courses.

As the weeks past, we got used to working in Rotterdam and we experienced it was very useful to actually work in the research location. We had to present two times for the tracked seniors and people that were involved with the assisted living research. Those were very interesting presentations. We all learned a lot from the way we had to present and from the feedback we got from our audience.

In the seventh week we finally got the GPS results in maps we could work with. It was really a shame that we could only work on the design for two weeks. The GPS took more computer work than we expected.

Our group

Already in the first week we formed a group, without really knowing each other. Luckily we made the right choice because in the last twelve weeks we had a very good cooperation and liked working together.

At the start of the programme we felt the project was slowing down because helping the Tracking Delft Group and waiting for GPS results took three weeks. So we decided to do some theoretical research about the topics we addressed and about the location. It was good to have this background, then you really know what you are talking about. From this point we started looking at a research question and a strategy of how to answer it. We think we had a good process during the weeks. We tried to be scientific at all times, and we think we succeeded in that. We did not make any assumptions of things we were not sure about. We only made decisions about things we could back up with theory and analysis.

"I really enjoyed the good cooperation between the three of us. Sometimes we even laughed so hard, we had to force ourselves to get back to work!" - *Robin Boelsums*

"Designing a strategy was new for me and was a very interesting tool that I will definitely use more in the future.." - *Thomas Galesloot*

"As an architecture student the whole course of urbanism was very new to me. I learned a lot about the way of designing and the different way of working." - *Khor Minhong*

The final presentation

The presentation held by Robin on Friday 18th of June was well received by the audience - the audience consisting of several people involved with the assisted living topic and some of the seniors we tracked. People could easily follow it and the main message was clear. Of course they did have some remarks. They were almost all about the design part. Some of the comments:

The movement of the parking lots along the Wolphaertsbocht was commented by some. They stated that a shop could not get enough customers with that little parking places in front of the door. Others said that the disabled could park in front of the door and others could walk a bit longer, our group agreed on that.

The Frans Bekkerstraat was designed different from existing plans, someone said. Unfortunately we did not know about these plans when making the design.

In the Katendrechtse Lagendijk -which we transformed into a pedestrian area- is a car garage located, which would be very hard to move out. Also a comment was given about excluding cars from some streets. A person of the municipality of Rotterdam said that the area is not well connected to western areas with car transport. However, we did not focus on the car traffic, but on the pedestrian and cycle traffic.

We think a lot of the remarks were validly, and those are useful to know for further designs. However, we were glad that those were all about our design part, which was the part we could spend the least time on. Furthermore we got a compliment on the beautiful images and the clear presentation.

5. Literature

<http://maps.google.nl>
<http://www.bing.com/maps>
<http://www.cos.rotterdam.nl>
<http://www.medicinenet.com>
<http://www.smartagent.nl>
<http://www.veldacademie.nl>
gisweb

“Informal surveillance and street crime: a complex relationship”

Paul E. Bellair - 2006

“Sociaal veilig ontwerpen. Checklist ten behoeve van het ontwikkelen en toetsen van (plannen voor) de gebouwde omgeving”

Voordt, D.J.M. van der, en H.B.R. van Wegen - 1990