INVERTED URBANISM

Restructuring the metropolitan green open space framework in the Netherlands in order to improve the value of regional and city green open space

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Graduation Project, MSc3 Urbanism
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Studio: The Landscape Metropolis

Master Thesis

Inverted Urbanism
Restructure the metropolitan green open space framework

Master thesis

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Contents

Metropolitan landscape and parks (In Between Space 2007)

1. Introduction

This Master Thesis in P5 is within the framework of the graduation track of Master thesis in MSc3 and MSc4 by Urbanism at the faculty of Architecture of Delft University of Technology.

This report shows the foundation of project “Inverted Urbanism-Restructure metropolitan green open space framework in the Netherlands in order to improve the value of regional green open space”. It is structured from main research question, the methodology, the relevance to social and science, theoretical framework, location, analysis, strategy, design and time schedule.

The aim of graduation project is to reconsider the role, value and possibility of regional green open space and create coherence with urban in order to give meaning as metropolitan scale.

The first mentor will be Rene van der Velde from the chair of landscape architecture, to find the way of defining green open space in metropolitan. The second mentor is Eric Luiten from the chair of Cultural history & Design. The third mentor is Frank van der Hoeven from the chair of Urban Design.

2. Motivation

In ‘The Death and life of great America cities’ (1961), Jane Jacobs draws attention to the social impact of urban elements, the actual spatial organization of buildings and neighborhoods and the mixture of functions upon the quality and safety of the public space within cities. Green open space is one of the public spaces, which is an essential element for city. Big cities in the Netherlands such as Den Haag or Utrecht are considering the amount of green open space inside the city. Furthermore, as seen ‘De Kern Gezond’, the plan for redevelopment the heart of Den Haag, refers to the various purpose of public space to enhance quality of city. Waldheim (2002) describes the landscape has replaced architectural form as the primary medium of city making. This thinking is based on the understanding of decentralized post-industrial urban form highlighted the leftover void spaces of the city as potential commons (Geyter ed. 2002)

Although green open space is thought as an element to enhance city quality, the quality or specific role of green open space is still open to reconsideration. It has possibility to be designed and contain more functions based on local scale, in order to participate or influence public life.

From urban extension, big cities in the Netherlands can be regarded as sprawled cities. In ‘God’s own junkyard: the planned deterioration of America’s landscape’ by Peter Blake in 1964, “sprawl”, or the occupation of the landscape, the empty space, became a topic in urban planning. But according to ‘After-sprawl’ (Geyter ed. 2002), ‘sprawl’ did not fit into the existing categories of urbanity in the Netherlands.. Moreover, Atelier Zuidvleugel (2007) describes that the buffer between cities and the countryside used to be clearly defined, but since urbanization has taken place within them, it is now difficult to draw a boundary between urbanized and non-urbanized areas. ‘Urban activities that were permitted in open spaces because of their ‘green’ status, such as riding stables and greenhouse horticulture, have made this boundary even blurrier.’ Since big cities in the Netherlands form a specific kind of ‘sprawl’, we need to reconsider open space based on this form. Therefore, research of existing green open spaces in the Netherlands is needed and open space should be reconsidered based on research.

The aim of this research project is to reconsider green open space in the Dutch metropolis through understanding its existing form, historical role and value, social demand and program, in order to improve quality of Dutch cities and try to make more clear the role of green open space in different scales and sites by conducting a research into the Netherlands South Wing regional open space.

Three Eggs Disgram (Price)

3.1 The landscape form of the metropolis

From theory of ‘the landscape form of the metropolis’ metlopolis is formes from three element, flowscape, plantation and theater.

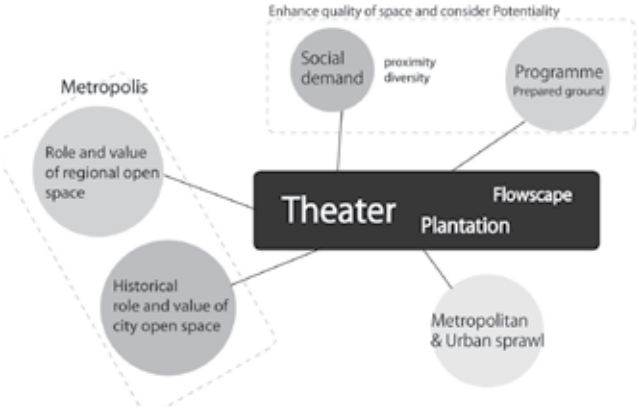
Flowscape
- Movement space
- In the landscape of the infrastructure network which can recognize an architectural staging
- In the deliberately picturesque moment of sudden view of the formal staging of coulisses

Plantation
- Programme of the urban colonisation grid is staged in landscape architectual terms
- The interaction between grid and the existing natural and cultural landscape is expressed in the design

Theater
-’edge-of-the city’
- Spatial and visual ‘devices‘ of landscape to percieve the city
- The apprehension of landscape space is restricyed to voids within and between urban tissue
- ’holes in the urban fabric’
- The city-dweller stands face to face with natural process, such as natural groeth, silence and emptiness
- Place can experience horizen

Reconsider about regional open space as theater

Still definition of theater is not cleary defined and have space to be discussed. From doing project through research, strategy and design of regional open space (Delfland in South Wing), I will try to find more clear definition and design principals of regional open space as theater.



René van der Velde, ‘Supertype’, in: A12Nu, *Onderzoek naar de A12 zone tussen Utrecht, Nieuwegein en Houten* (Rotterdam: Artgineering, 2009) pp. 46-51.

Drawing Jan Wilbers

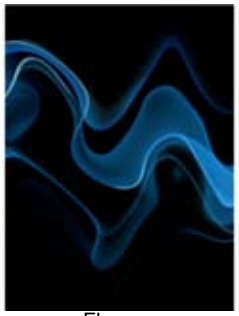
urban concentrations in the A12 zone

René van der Velde, ‘Supertype’, in: A12Nu, *Onderzoek naar de A12 zone tussen Utrecht, Nieuwegein en Houten* (Rotterdam: Artgineering, 2009)

Drawing Jan Wilbers

landscape voids in the A12 zone


Theater


Flow


Plantation

3. Theoretical Framework - restructureing the metropolitan green open space

In order to find the way to approach the restructuring of the metropolitan green open space framework, the following elements will be discussed.

1. Urban sprawl and the Dutch metropolitan area
2. Hinterland landscape
3. Historical role and value of city green open space
4. Social demands
5. Landscape urbanism-'Prepared ground'
6. Conclusion-What do we need to reconsider for green open space in the Dutch metropolitan area

3.2 Urban sprawl and the Dutch metropolitan area

After the industrial revolution of the19th century, urban structure was expanded and developed towards the landscape, the so called 'urban sprawl' occurred. There is no clear boundary between city and landscape anymore. Moreover, the increasing of mobility in 20th century enhanced city to make formation of metropolitan districts.

It is already mentioned in 'After-sprawl' (Geyter ed. 2002) "Sprawl" is explained as something that 'did not fit into the existing categories of urbanity on the one hand, and countryside, villages and the non-urban on the other' (p.21). The same author mentions, 'sprawl is still talked about in extremely general terms and usually from a negative, global and generalizing point of view.' This indicates that, 'sprawl' needs to be developed among each city in local scale, in order to find specific effects or problems.

Moreover, 'sprawl' is described as chaos, a lack of structure or demonstrable catalysts. Geyer (2002) continue that 'chaos has no place in the domain of architecture and urban planning. But chaos can also be understood as nothing more than a complex form of order, subject to processes and laws that are still unfamiliar'. From this, we can understand urban sprawl as a lack of structure and not enough belong to architecture or urban planning until now, but we can also understand it as new field that architects, urban planners and landscape architects can corporate and involve in order to find way of development.

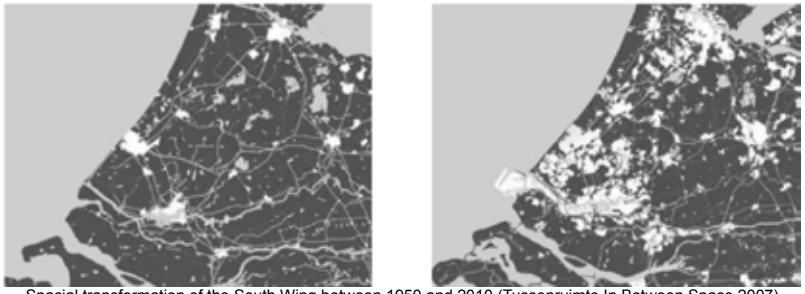
Since city is defined as metropolis, city structure plan needs to take into account as key words in order to make city as whole. This is not only for urban fabric characteristic but also can be said to green open space in the metropolis. Green open spaces inside city are strongly connected with urban fabric such as infrastructure and buildings. It is no more based on the original nature layer and it is not part of the big scale green structure. It is already becoming one part of urban fabric and characterized as fragmented, lacking a structure, hybridization and formlessness.
On the regional or metropolitan scale lacking of integrate as whole between the city and country side are not yet seen. However, before reconsider green structure for whole city, once it is needed to see green open space in hinterland (outside city) and inside city individually to make clear its role and character.

3.3 Hinterland landscape

In the document “Tussenruimte in-between space” Dutch south wing Hinterland or regional scale open space, such as Delfland in between Delft and Rotterdam, is described as `the open areas in the crevices of that metropolis have become “in-between space”.’ (Atelier Zuidvleugel 2007)
To compare the Netherlands South Wing open space in 1950 and 2010, it is obvious that cities are expanding and regional scale landscape is becoming in between spaces in between big cities. Moreover, Atelier Zuidvleugel, a special platform for research and design under the Dutch South-Holland province government is pointing out that the quality and individuality of local landscapes are becoming increasingly important for competing for the economic position in the European context. However when focusing on the role and value of the landscape in relation to non-agriculture economic development, cohesion and identity, it is almost entirely absent in South Wing regional open space until now.

‘The creation of the Emscher Landschaftpark (public park transformed from industrial area in Duisburg-Nord in Germany), an initiative pursued with incredible perseverance, has greatly promoted the economic development of the Ruhr region in Germany’ (Atelier Zuidvleugel 2007). It is one of the successful examples which engaged the quality and uniqueness of the landscape and economic in metropolitan scale (Atelier Zuidvleugel 2007)
On the other hand, by ‘the continual rise in the standard of living has led city-dwellers to make ever greater demand on the spatial quality and recreational options in the immediate vicinity of the city.’ (Atelier Zuidvleugel 2007). It is mentioning the possibility to offer a wide range of experiences by making strategy as integral (involving multiple sectors) and multifunctional (involving multiple categories of users) as possible,

Regional scale open space has significant role as economic activities and even play a role of competitiveness in European context and local factors play decisive role for this. Besides, it has possibilities to provide a wide range of recreational experiences for citizens and therefore ‘diversity’ should be taken into account as a keyword.



Spacial transformation of the South Wing between 1950 and 2010 (Tussenruimte In Between Space 2007)

Farming differently: traditional farms next to grasshouses (Tussenruimte In Between Space 2007)

Multi-function landscape: urban sprawl, Water landscape:lakes (Tussenruimte In Between Space 2007)

3.4 Historical role and value of the green open space inside city

In general, green open spaces in towns and cities are considered as ‘providing an escape from widespread urban air pollution’. (Swabwick, Dunnett, & Woolley 2003) Since the city is separated from natural landscape, green open spaces inside the city become indispensable.
The role and relation between landscape (non-urban) and city (urban) is various according to the time.

3.4.1 Before 19th century

Pre-Industrial period in Europe, there was a sharp contrast between city and landscape, clearly separated by city walls. In the middle ages, green opened city was embodied in some place in Europe and America and big park was constructed inside the city. This big park was mainly allotted as a sport field for healthy city life.

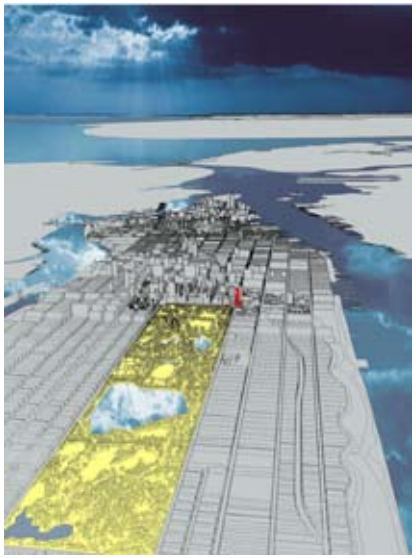
3.4.2 19th century

Period description (Kondratieff, economist, Mayer 2003);
1782-1845; the energy revolution; new cities arise and economic functions are liberated
1846-1892; the infrastructure era; expanded and developing urban structure is absorbed into an evolving regional and national urban system.

It 19th century, park system is used as standard for urban planning. ‘Industrial exploitation made modern big cities around the world. As compensation for industrial exploitation, nature was elevated to a separate culture category’ (Velde & Wit 2009) Therefore, European and American cities invented city parks such as Hyde Park and Central Park in the middle of the city in order to provide healthy city life (see illustration 5). ‘The city park was included in the city in a planned manner as ‘artificial nature’ and as a public facility.’ (Velde & Wit 2009) It was also a response to the demand of sporting culture inside the city.
‘The creation of park system in the 19th and 20th centuries is affecting the balance between town and country in the big conurbations to an extent the end of which we have not yet seen.’ (Tummers & Tummers-Zuurmond 1997)

Monteriggioni, Italy, thirteenth century (Het land in de stad 1997)

Nineteenth-century industrial landscape Preston, Lancashire -Aero Films (Het land in de stad 1997)



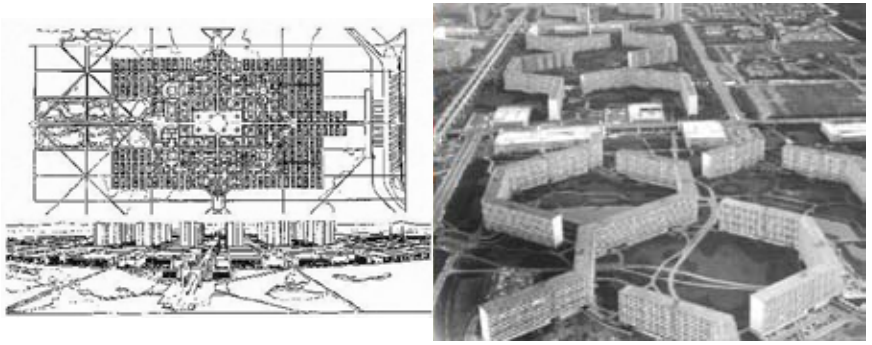
Central Park in New York (Velde presentation 2009)

3.4.3 20th century

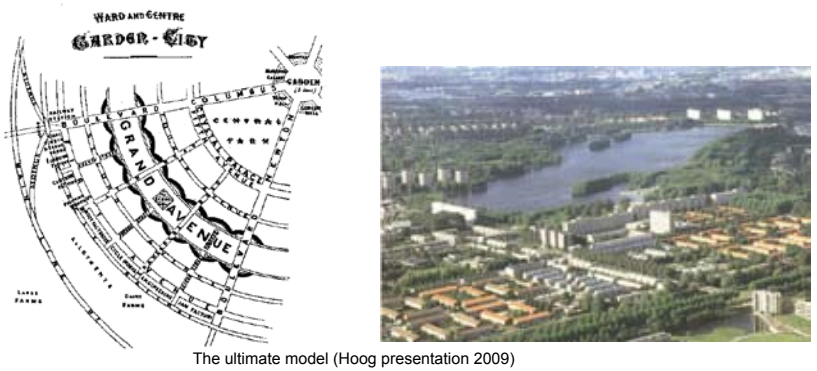
Period description (Kondratieff, economist, Mayer 2003);
1893-1948; increase in (auto) mobility; along with the reinforcement and concentration of economic activities, the basis is laid for the formation of metropolitan districts.
1949-1998; globalization and internationalization of industry arrive on the scene, accompanied by the “office era”.

In 20th century, generally making green open space thought such ‘providing as escape from widespread urban air pollution’ (Swabwick, Dunnett, & Woolley 2003). This thought driven government to create more new parks and green spaces. Until 1968-1977, Dutch government made document (RPD 1968, PPD 1977) for defining quantity of park surface for urban planning. Garden city is under this decision as well.
‘Garden city the public green appeared as an ‘interim space’ and remedy for the increasingly inaccessible landscape.’ (Velde & Wit 2009) ‘Social housing in high-rise buildings floating in an environment of open space are if not yet demolished example of post was city extension, which are not easy to keep up and manage.’ (Tummers & Tummers-Zuurmond 1997) Today, the reaction against the massive post war implementation of modern open Le Corbusier city extensions has left us with serious problem.
As a consequence, under foot of post war social housing or enough amount of green space in garden city left over problems such as loosing ownership, not engagement with people and hard to manage.
Komossa (2009) point out, ‘every urban model has its own way in which public building, squares, the water- and green structure are designed and position with in the city. Their form and position reflect how society thought during a certain period about public domain’. However, city model is constantly changing.

Therefore constant updating is needed which contain certain period demand.



The ultimate model (Hoog presentation 2009)



The ultimate model (Hoog presentation 2009)

http://www.parkstad010.nl/

3.5 Social demand

This chapter is going to discuss expected social demands for green open space from different perspectives.

3.5.1 Network and Proximity

Economist Konsratieff describes the early part of the 21st century as ‘an increasingly interwoven quality; network, whose structure are constantly changing, become more and more important in the information age’ in his ‘Long-wave theory’. (Kondratieff, economist, Mayer 2003)
Furthermore, Boer, Dijkstra (2003) mention that ‘Cities can be characterized as a great diversity in close physical proximity’. This means that people want or familiar with selecting activity based on circumstances from alternative. This is important for this work because especially regional green open space is lacking of physical and mental proximity and diversity of experience. Also, exhibition of Le Grand Pari(s) (Paris, France 2009) is raising proximity as a one of key word for future plan of Paris. It is important fact because ‘at the moment when the choice is to be made, the activity of distinguishing between near and far and especially, of what is acceptable in the matter, always comes into play’ (Lussault 2009). For network and proximity, efficient accessibility and connectivity are required by different types of transport systems.

3.5.2 All-round experiment and diversity

In ‘Euroscapes’ (2003) Boer & Dijkstra describe, “Organization technology and the right setting can turn particular action, acquisition or trip into an ‘all-round experience’: a complete package of orchestrated emotions with a minimum of disruptive factors. Existing phenomena are revitalized by being combined to produce something new and even more of all-round experience.”

Moreover, it is already mentioned in chapter 2 that for the regional scale open space ‘the continual rise in the standard of living has led city-dwellers to make ever greater demand on the spatial quality and recreational options in the immediate vicinity of the city.’ (Atelier Zuidvleugel 2007).
Talking about demand of leisure or recreation, spending time for it is increasing nowadays. Richard Florida (2002) explains that ‘the creative class life style comes down to a passionate quest for experience’. ‘A creative life packed full of intense, high-quality, multidimensional experience’ (p.166). And ‘they favor active, participatory recreation over passive spectator sports’.

From above, social demands are described as following keywords: network, proximity, all-round experience, recreation and diversity. Therefore, mono-functional land use is limiting experience and variety of experience, mixed uses will be required. Moreover, Boer & Dijkstra (2003) are showing possibility of combination between non leisure-time and leisure time such as education, working or living and entertainment together. This makes possible to have package of experiences. These ideas can be applied for planning and designing of green open space.

Layer (Meijer presentation 2009)

3.6 Landscape urbanism-'Prepared ground'

Green open space is meaningful in itself as providing an escape space in urban. Though, it can become more functional by combining programs. The purpose of this chapter is discussing about how landscape urbanism is thinking about essential element in nowadays.

3.6.1 Prepared ground

One specific example showing possibility of landscape urbanism is Parc de la Villette project (1982) designed by Tschumi in Paris. Corner (2002) saw this park as "prepared ground" for Paris, city itself. By 'prepared ground, the author means design ground for unbuilt program. This concept is useful because people easily can imagine what kind of activity they can do in that place. This 'prepared ground' can contain many program and activity such as walking on the grass, football, bicycling, kite flying, picnicking, and even equestrian events. Potential of this space is based on the design or program of this park such as pavilion, facilities, different routing and iconic folis. The factor that makes park special is continuity of urban fabric until inside park and diversity of activity. It makes easy to use in daily-life and give many kind of experience that still remain park role.

In addition, British commons like Hampstead Heath in London is also prepared for seasonal traveling carnivals or sporting events and clubs although basic use are healthy walks, bicycling races, nude sunbathing, and swimming within the dense surrounding urban fabric of the inner city.
However, Corner continue that "prepared ground" should be flexible and open allowing the "ad hoc emergence" of "per-formative social patterns and group alliances that eventually colonized these surfaces in provisional yet deeply signification ways".

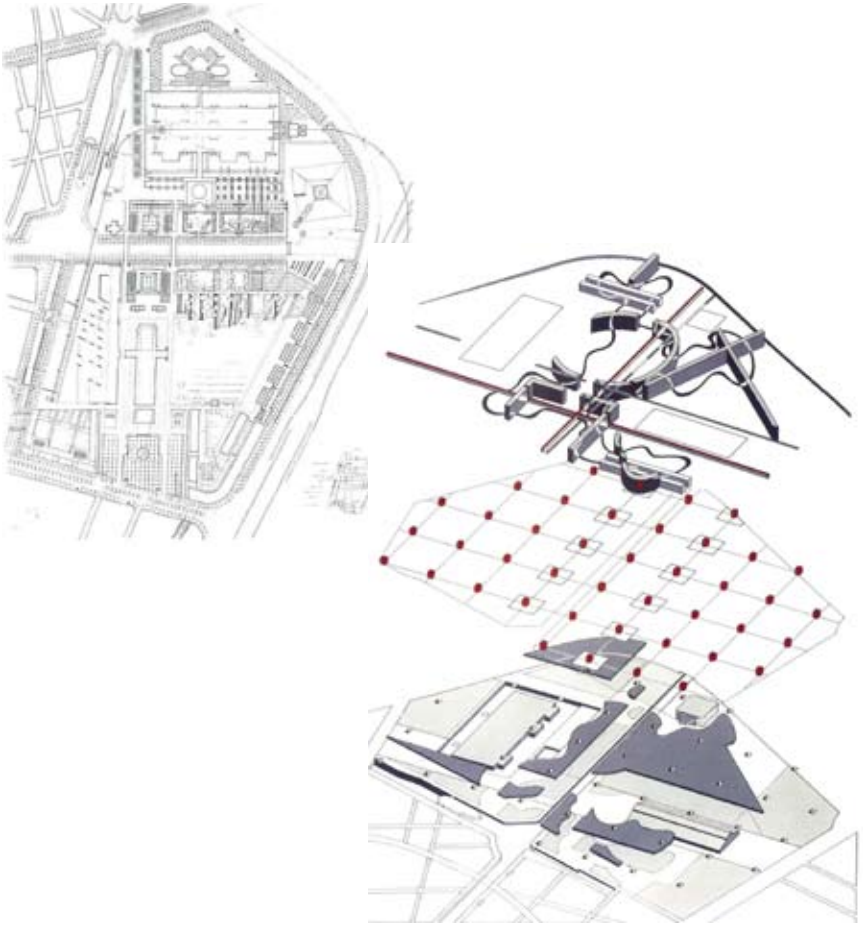
In order to make green open space influence in daily public life, it is need to be designed as "prepared ground" which has possibility to contain diversity functions based on local activity.

Plesure Garden (Grafe presentation 2009)

3.6.2 Parc de la Villete

In Competition for Parc de la Villette as a '21st-century urban park', Barnard Tshumi showed landscape design model which is no longer distinguished between city and landscape.
'The three layers plan that architect Barnard Tshumi generated a series of deliberate tensions strengthening the park's dynamic' (Jong, Lafaillo & Bertram 2008).
Jong, Lafaillo & Bertram (2008) are explained three key elements, surface, points and lines as followings. 'The layer surface related to space and surface textures (paving, grass, sports), points referred to the grid of red follies: these buildings emerged from the totality of programmatic requirements which, exploded into fragments, determined the character of the grid. Lines illustrated lines of movement and walking, consisted of two interesting orthogonal lines, a meandering 'cinematographic' line, along which the different elements of the park were situated like a succession of narrative images, and avenues of trees connecting the principals activities with one another.'

As a conclusion author describe layers and contrast of this park plan aim as ‘mainly to emphasize urban complexity as a programmed, rather than the unity and harmony or coherence of the traditional Utopian park.’



Parc de la Villete (Landscape of the Imagination)

3.7 Conclusion

Conclusion can be drawn from preceding discussion.

From structure of metropolis as urban sprawl, it is clear that green open space are fragmented, lack of structure and formlessness. It is necessary to recreate green continuity or green structure in order to give the concept. However this should take into account of human perspective that people can experience on eye level, rather than deal by bird eye planning. By constructing green structure, people can have dynamic experience for recreation by using both hinterland and city green open space.
Moreover hinterland has significant role as economic activities that main activity such as agriculture should be remained. However still it has space to contain recreational use. Diversity landscape in hinterland can provide dynamic experience which is different from city green open space.
On the other hand, city green open space is the most physically proximity place to experience ‘escape from widespread urban air pollution’ (Swabwick, Dunnett, & Woolley 2003). Form and position of spaces are planned and designed based on society thought during certain period. However social demand is change dynamic by time and as a result it is essential to upgrade. Therefore, remaining this important role as escape zone, it can be become ‘prepared ground’ contains urban complexity and diversity of activities and event. It is no longer separated from city as artificial nature. It can be more continuity of city.

4. Problem statements

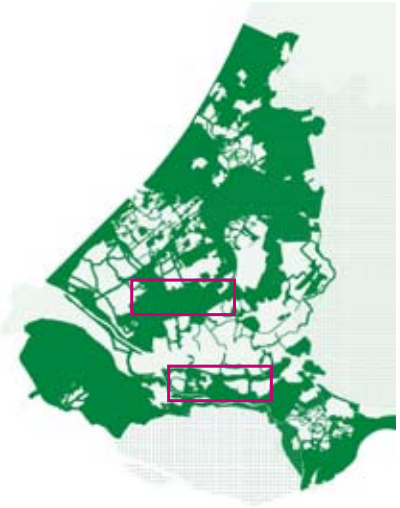
In general, from structure of all metropolis, it is clear that green open space inside metropolis are fragmented, lack of structure and formlessness. It is necessary to reconsider green continuity or green structure in order to give the meaning or make good use of this fragmented character. By constructing green structure, it is possible people can have dynamic experience for recreation by using both regional scale open space and city green open space.

Moreover regional scale open space has significant role as economic activities that main activity such as agriculture should be remained. However still it has space to contain recreational use. On the other hand, city green open space is the most physically proximity places to experience. Form and position of spaces are planned and designed based on society thought during certain period. However social demand is change dynamic by time and as a result it is essential to upgrade. Therefore, remaining this important role as escape zone, it can be become 'prepared ground' contains urban complexity and diversity of activities and event. It is no longer separated from city as artificial nature.

For graduation project, I will choose Delfland as a site to reconsider the metropolitan green open space framework.
Rotterdam is second biggest city in the Netherlands and the biggest city in South Wing. Hinterland around Rotterdam has important role to stop urban sprawl and buffer zone of two big cities Rotterdam and Den Haag. Furthermore, landscape has diversity and dynamic and has potential to be attractive recreation place. Meanwhile most part of the city is reconstructed after World War two, and can see typical green open space problem produced by postwar planning.

Metropolitan scale green open space in Rotterdam, such as hinterland and city green open space, has also general problems same as other metropolitan city.

Followings are problems the metropolitan green open space in Rotterdam:
Problem in regional scale open space/ city green open space
-Lack of physical or mental proximity= lack of accessibility or connectivity
-Fragmented: each different element is separated hinterland: agriculture, forest, glass house, water system city: sports field, event space, walking path (connection line), allotment garden
-Dynamic landscape / escape zone from urban is not fully used as recreation
-Not much preparation for public activities that answer to public domain



5 Research Question

This chapter is mentioning about main question and sub-questions.

Main research question
How to restructure the Dutch metropolitan green open space framework through design interventions?

To answer this question, sub-questions are mainly divided into three topics, which are related to spatial, social, and location.

Sub-Questions:

1. **What are general requirements for green open space in regional scale open space?**

2. **What is the existing structure, typology, role and value of regional scale open space of Delfland?**

3. **How to connect different role and scale green open space in metropolitan scale, in order to get dynamic and diversity experience?**

1. What are general requirements for green open space in regional scale open space?

Some general requirement for green open space are already mentioned before, but for applying to actual condition in Delfland, more precise requirement will be seeked.
- -Literature studies
- -Reference studies
- -Corrective research (Excursion/Park Analysis)

2. What is the existing structure, typology, role and value of regional scale open space?

In order to make strategy or design, it is essential to know existing Delfland structure, typology, role and value. Also it is needed to know how green open space are related with other elements such as infrastructure, water or urban.
- -Literature studies
- -Reference studies
- -Layer technique / mapping (Analysis)
- -Scenographic / dinamic

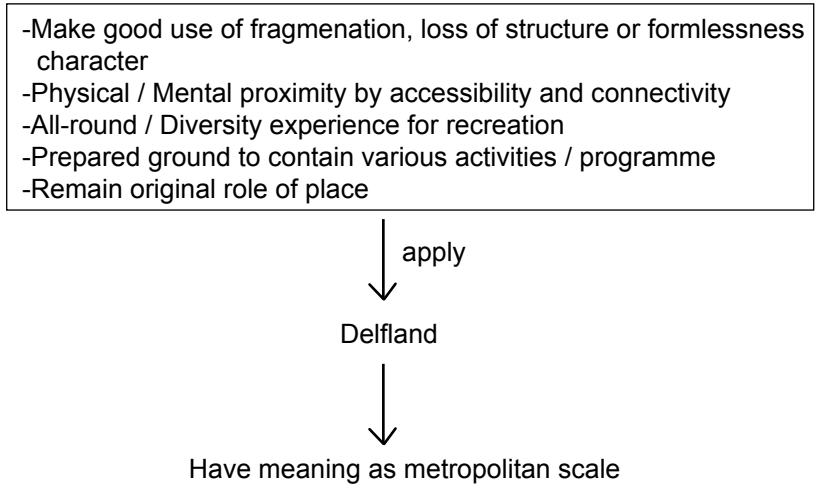
3. How to connect different role and scale green open space in metropolitan scale, in order to get dynamic and diversity experience?

This question is had to do with strategy and design stage. Furthermore, this question answer will be kind of solution for fragmentation and all-round or diversity experiment.
- -Design research / case study
- -Design experiment
- -Formal analysis/Functional analysis

6 Aim of the graduation project

The aim of graduation project is to reconsider the role, the value and the possibility of regional scale open space in order to give meaning as metropolitan scale.

However, to find possibility of green open space social and spatial demand will apply. Naturally, reaction of receiving requirements or the way of reflects to design is different from hinterland and city green open space. Even between different characteristics, hinterland will have different result.
Therefore, I am thinking that it is possible to give meaning for metropolitan scale framework of green open space by combining these differences in different scale and locations. In the end, I am trying to give role and value in each scale and location that can corporate with other green open space and urban.

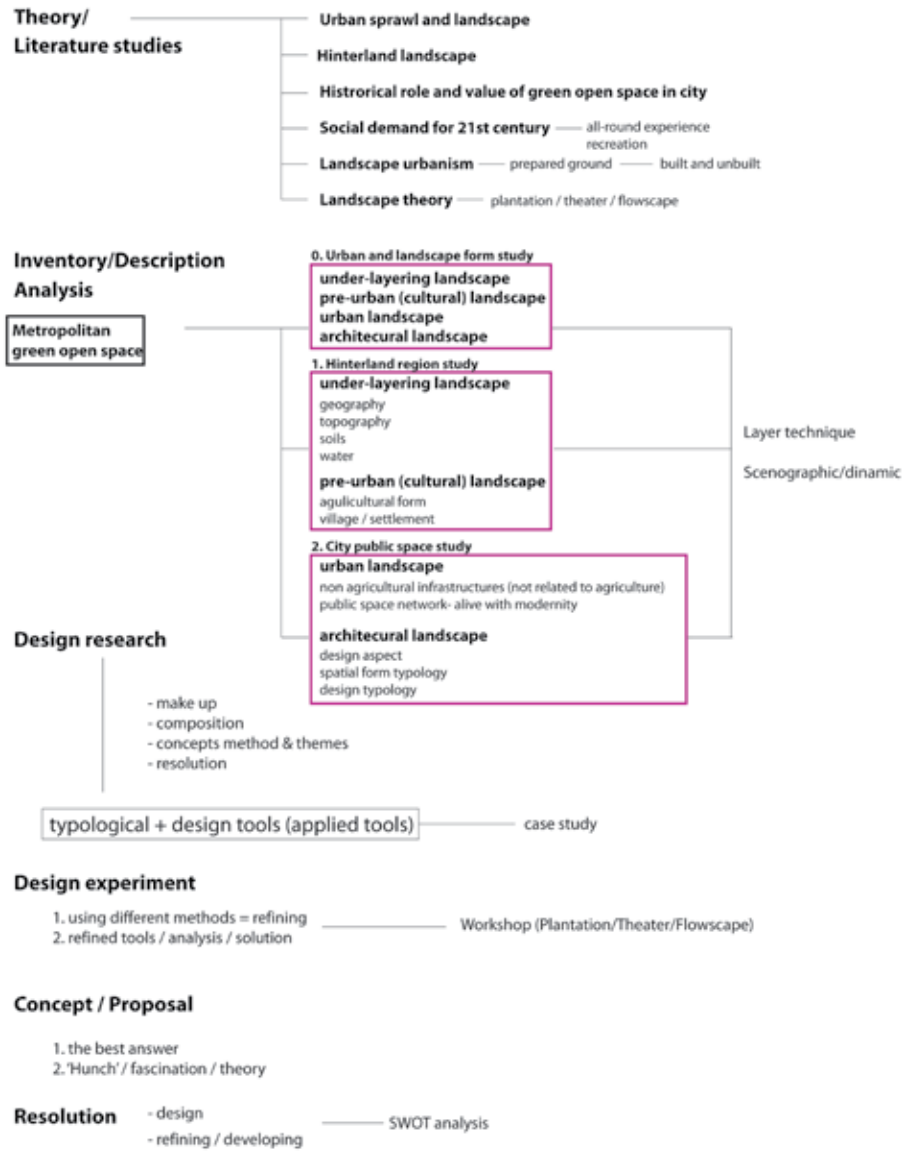


7 Relevance

7.1 Social relevance

Nowadays leisure time demands are increasing. ‘The continual rise in the standard of living has led city-dwellers to make ever greater demand on the spatial quality and recreational options in the immediate vicinity of the city.’ (Atelier Zuidvleugel 2007)
What people want is ‘all-round experience’ a complete package of orchestrated emotion with a minimum of disruptive factors. (Boer & Dijkstra, 2003) Green open space has possibility to reply to these demands.
Moreover, ‘The creation of the Emscher Landschaftpark, an initiative pursued with incredible perseverance, has greatly promoted the economic development of the Ruhr region in Germany’. (Atelier Zuidvleugel 2007) This project show that combine with landscape and recreational such as amusement park and economical facility such as shopping mall produce economic benefit.

8 Research approach/ Methodology



Research topic is mainly divided into three;
1. Social demand
2. Current situation (quantity, quality and composition) of green open space in Rotterdam
3. Metropolitan framework

Each topic has main tool for research approach. At the same time for finding design method, workshop is held, and evaluation will be done at proper moment.

1. What are general requirements for green open space in hinterland and inside city?

Main tool:
-Literature studies
-Reference studies
-Corrective research (Excursion/Park Analysis)

2. What is existing structure, typology, role and value of hinterland and city green open space in Rotterdam?

Main tool:
-Literature studies
-Reference studies
-Layer technique / mapping (Analysis)
-Scenographic / dinamic

3. How to connect different role and scale green open space in order to get dynamic and diversity experience?

Main tool:
-Design research / case study
-Design experiment
-Formal analysis/Functional analysis

Evaluation

8.1 Literature studies

In order to make theoretical framework social demand and have basic information about site (history or composition), literature studies will be done. Information will be corrected by difference sources as books, journals, articles or Internets.

For social demand for green open space nowadays, ‘Euroscapes’ (Broesi, Jannink, Veldhuis, & Nio (ed.) 2003) is mentioning change of life-style and requirement or demand and importance of all-round experience.

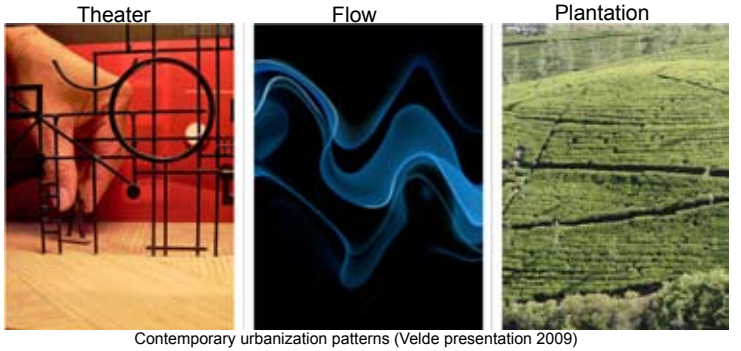
Considering current situation (quantity, quality and composition) of green open space in Rotterdam, ‘City and port ‘(Meijer 1999) is telling history of city.

New public domain such as events and activities in public space, ‘In search of new public domain’ (Hajer & Reikndorp 2001) gives idea.

Reviewing about ‘the role and value of green open space in metropolis’, ‘Het land in de stad’ (Tummers & Tummers-Zuurmond 1997) is telling by historically and using case studies from all over world.

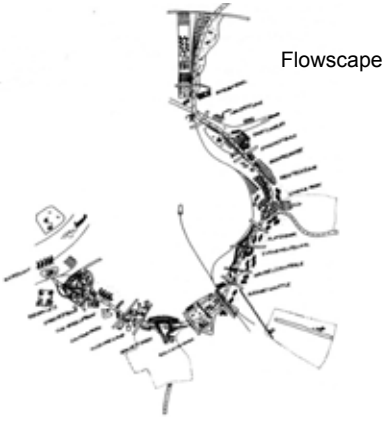
‘The Landscape Form of the Metropolis’ (Velde & Wit 2009) which describing landscape as combination of different forms:plantation, theater and flowscape, will be key reference for considering green open space metropolitan fr amework .

The Landscape Form of the Metropolis



Contemporary urbanization patterns (Velde presentation 2009)

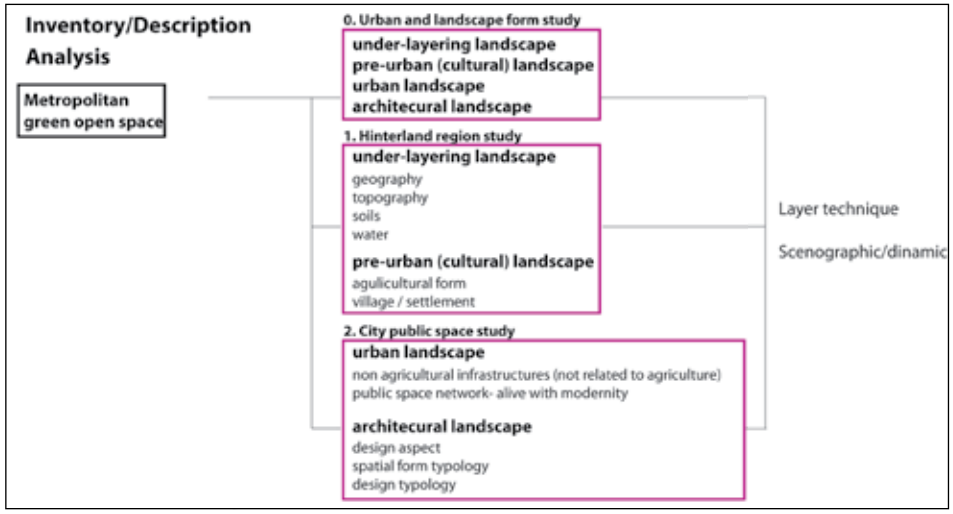
Almere Hout (Marcusse 1999)



Ringcultuur (Neutelings 1988)

Theater


Amhem-Nijmegen (Bouwkunst 2004)

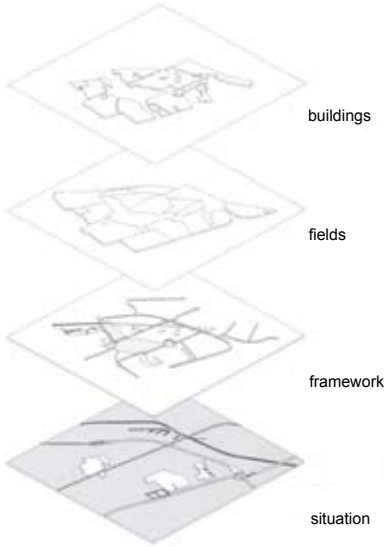


8.2 Mapping and layer technique for analysis

In order to get different information about site, mapping and layer technique will be used.

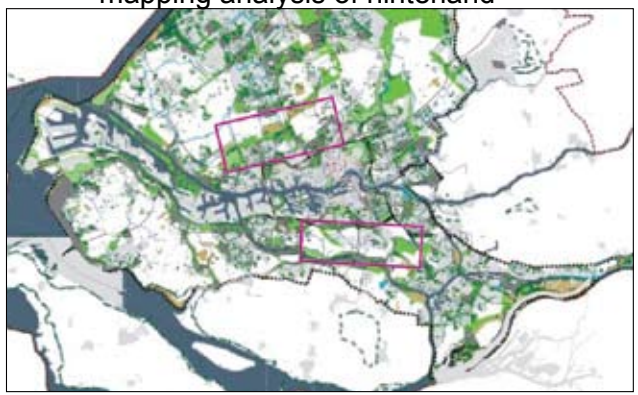
'Maps can ensure that the results of an analysis can be presented in yet more, but derived maps, resulting in verifiable statements.' (Burg 2004) Site context analysis will be done with mapping to understand the current situation of Rotterdam.

In order to see context in city scale with infrastructure, water structure, urban fabric, program and green structure, layer mapping such as 'Composed city' (Westrik 2008) will be necessary. It is used for both finding problem and fixing problem.

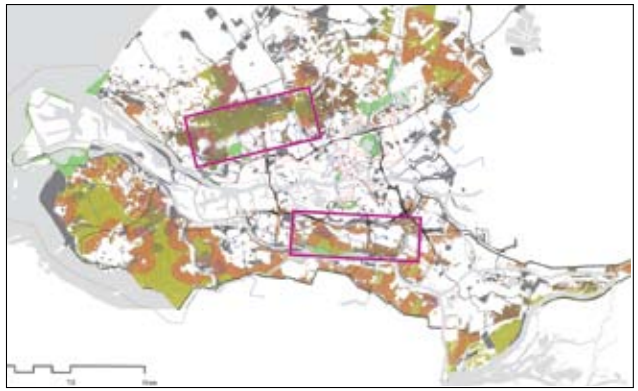


De gelaagde opbouw van Leidsche Rijn, 1998.

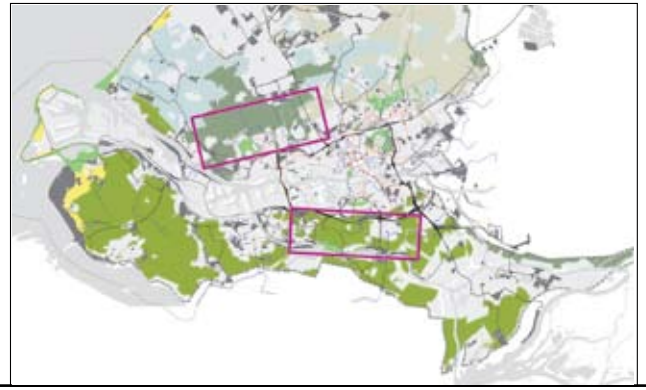
mapping analysis of hinterland



Ecology



Agriculture



Soil

8.3 Landscape research / analysis method

Based on 'The Landscape Form of the Metropolis' (Velde & Wit 2009), landscape use three different topic to analysis.

1. Plantation- Who (is going to use)?

Plantation is analyzing built context, which is concerning with catchments area (reach), expected users (density), possibility links with other functions (mixed function) and alternative factors (uniqueness).

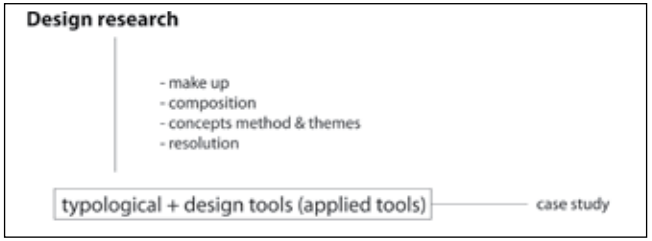
2. Flowscape -How (to use)?

Flowscape is analyzing infrastructure context, which are infrastructure/water/green connectivity, accessibility, time aspect (how long does it take), and routing (by car, bike, foot). Infrastructure connectivity will be analyzed by three-step analysis according by space syntax method.

3. Theater -Why (people want to use)?

Theater is analyzing quality of the park itself, in order to find identity or uniqueness. This is using three forms, which are, visual form and program form. Special form is dealing with structure of park or context of surroundings, visual form is dealing with visual metaphor such as iconic buildings, vegetation, and program form is about amount, diversity and schedule of program.

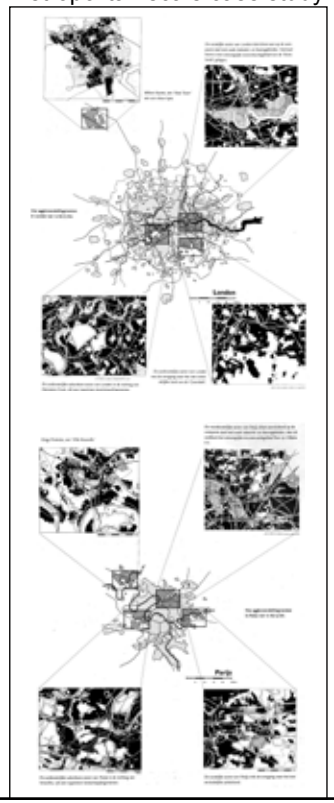
By combining these three research topics and analysis result, it can give evaluation for green open space in the end.



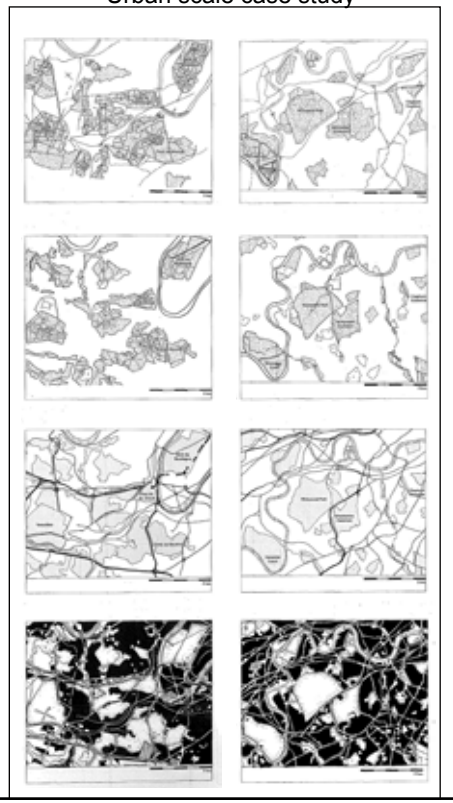
8.4 Case study as design research

Case study will be done in different scale and aim for design research. 'In a sctentific or theoretical sense, it must be general; that is, it has to be based on a mutual comparison od series of elementary examples. From a practical angle, it must be applocable and offer the possibility for renewal in specific design tasks and situations.' (Steenbergen, Mihl & Reh ed. 2002)

Metropolitan scale case study



Urban scale case study



Design experiment

1. using different methods = refining
2. refined tools / analysis / solution

Workshop (Plantation/Theater/Flowscape)

8.5 Workshop as design experiment
(flowscape, theatre, plantation)

Workshop is organized as the same group with corrective research and held by Landscape Metropolis Studio. Aim of this workshop is to develop design approach based on research or analysis for individual project.

It is consist from four parts, which are based on landscape theory: Plantation, Flowscape, Theater and combination of three. These workshops will be given by Saskia Wit (Theater), Frank van der Hoeven (Flowscape) and Cristoph Grafe/ Rene van der Velde (Plantation).

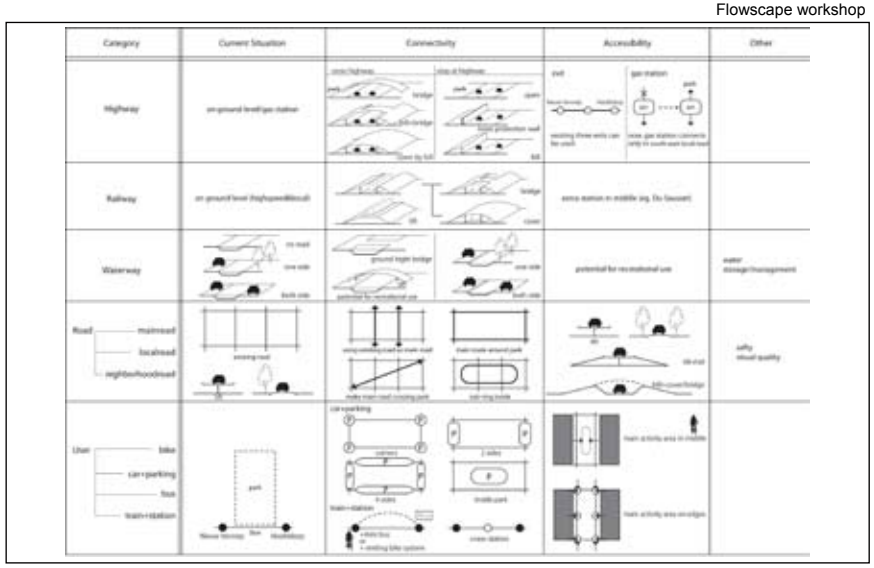
Trial site of the workshop is ‘Park 21’ in Halmemeer. This park is now drawn up a plan to be Metropolitan Park.

Flowscape workshop
Flowscape is basicaly network such as water structure, infrastructure or green structure. In workshop, we consider about how park can relate to highway, railway and road. Possible design is shown in table.

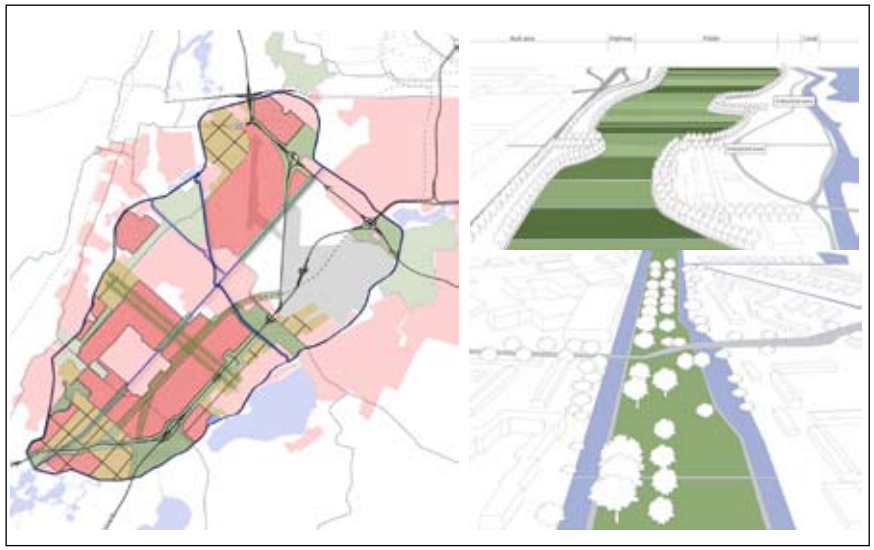
Theater workshop
Theater is open space which mean unbuilt space. This exercise is fiding the reason for making open space and designing open space by following concept.

Plantation workshop
Plantation is built area. In this exercise, we applied existing vinex or housing projects to site in order to see combination with open space and living environment position of area in regional scale.

Flowscape workshop

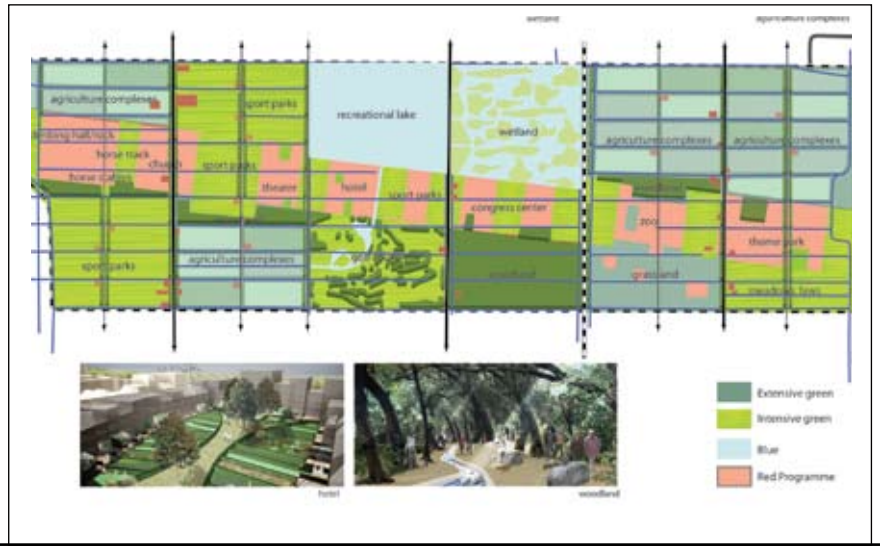


Theater workshop



Plantation workshop

Rethink Park21 workshop



Concept / Proposal

1. the best answer
2. 'Hunch' / fascination / theory

Resolution - design
- refining / developing

SWOT analysis

8.6 SWOT analysis

In SWOT analysis, strength and weakness (internal) and opportunities and threats (external) about green open space in Rotterdam will be analyzed. This is helping to find specific problems clearly and capture potential or possibility for future. Also result will be used to make perspective and strategy.

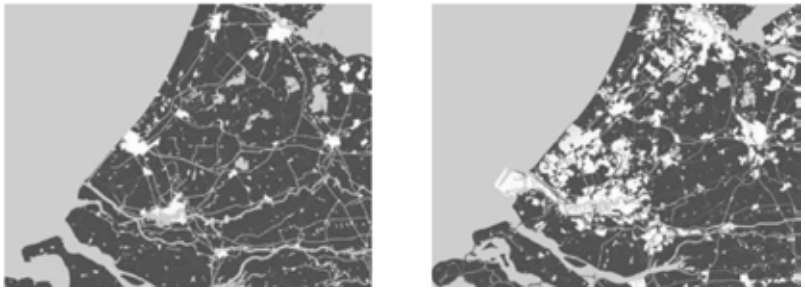
	Helpful	Harmful
Internal origin	S Strengths	W Weaknesses
External origin	O Opportunities	T Threats

SWOT analysis

9.1 The South Wing

The South Wing is part of Randstad in the Netherlands and stretching 60km from Dordrecht in the South East to Leiden in the North. Major cities are Rotterdam and Den Haag. Population is around 3.5million people.
Density is around 1,220 inhabitants per square kilometer and it is the most densely populated area of the twelve Dutch provinces. Rotterdam is the main business area in the south of the Netherlands and 130,200 businesses are registered. Also knowledge institute such as three universities (Leiden, Delft and Rotterdam), the TNO researcher laboratory, Estec and the innovation centers are placed.
It can be said that the South Wing is hive of activity, crossed by a busy network, roads, railways and waterways.

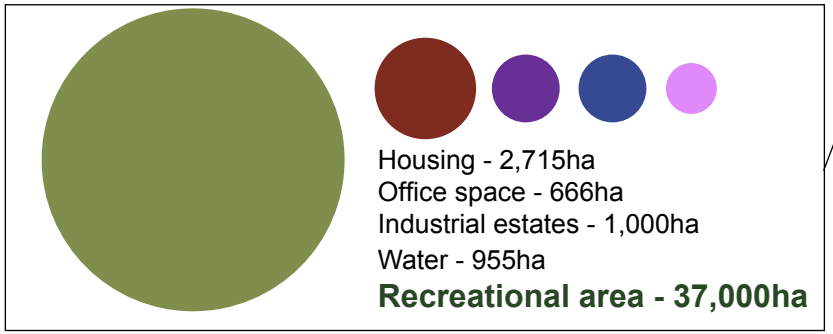
The Netherlands urban extention between 1950 to 2005

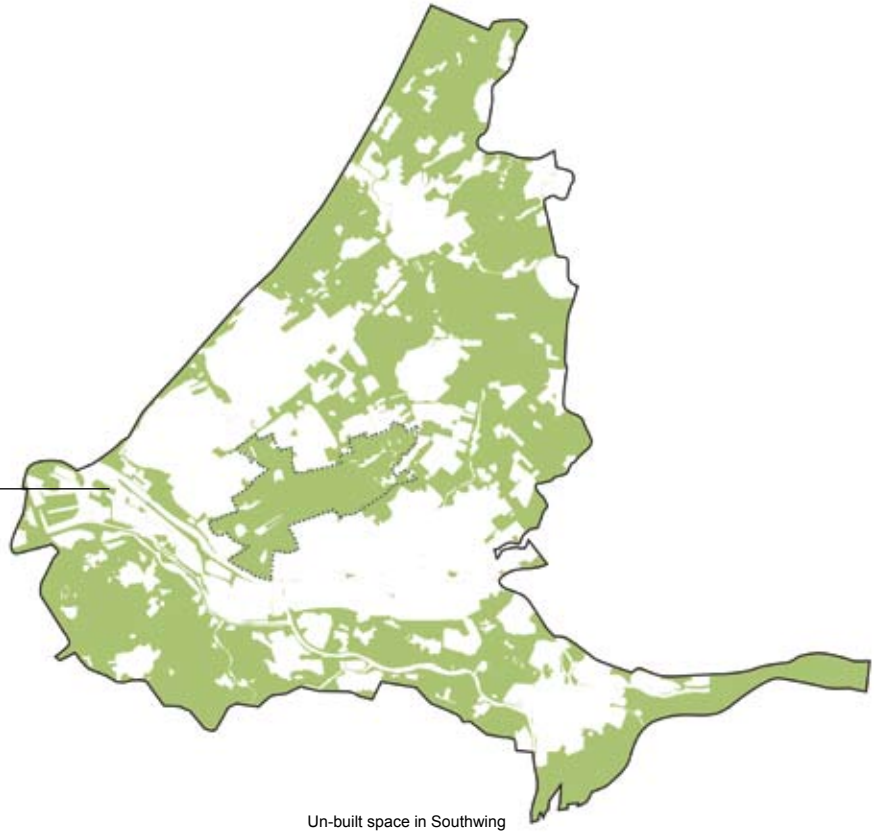


The South wing urban extention between 1950 to 2010

The South Wing urban extention.

Last 50 years, urban extension was rapidly occurred in both on the Netherlands and SouthWing, especially around Amsterdam and Rotterdam area.
In 1950 cities are surrounded by green open space, however in 2010 regional green open space are surrounded by urban. Especially Delfland, which is in between Den Haag and Rotterdam, is remarkable case.

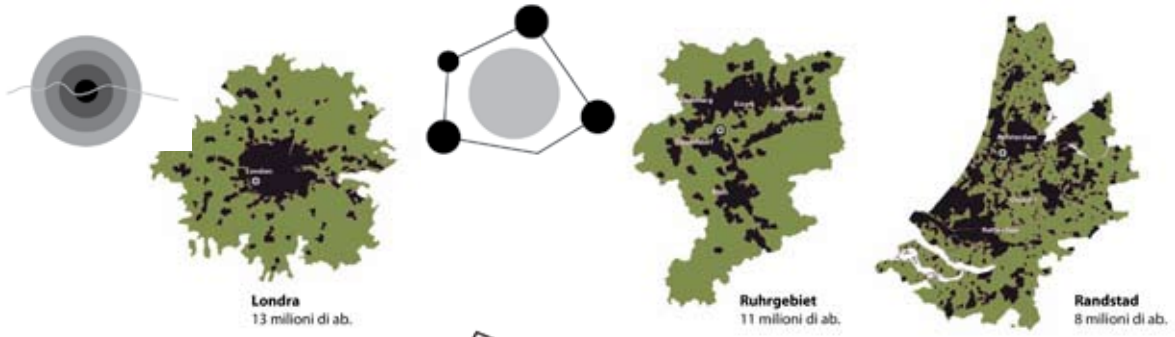




Un-built space in Southwing

Spatial demand for un-built space in South Wing

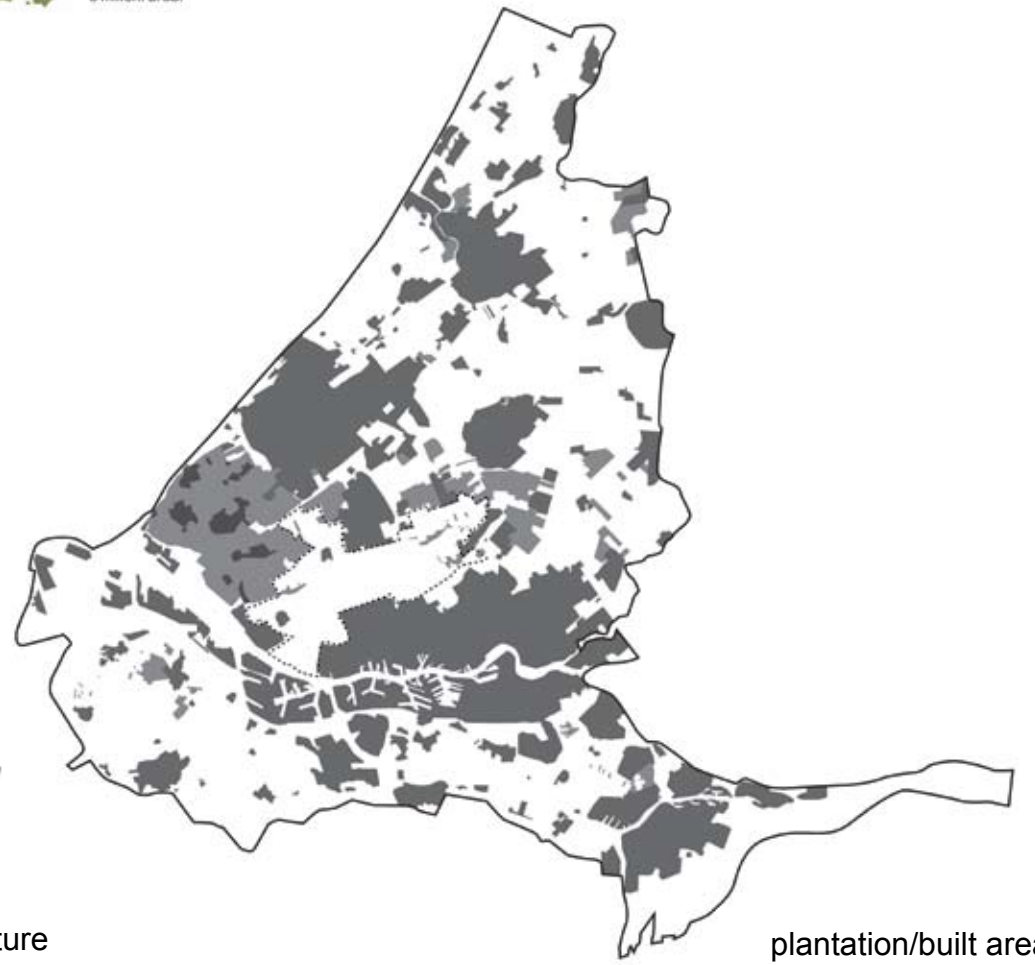
According to ‘Tussenruimte‘, following space are required for un-built space in South Wing.
2,715ha of housing, 666ha of office space, 1,000ha of industrial estates, 955ha of water and 37,000ha of recreational area.
From this statistic, it can say there are also big demand for recreational area more then other facilities in South Wing.



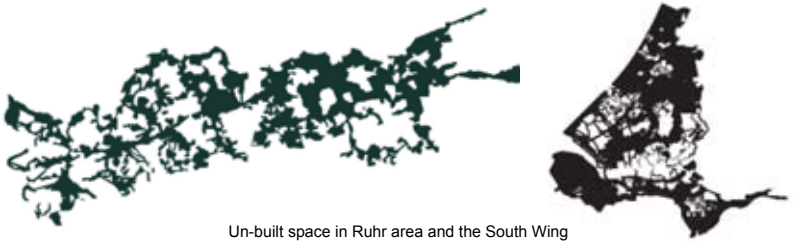
Centralized model and decentralized model

Form of metropolitan area is divided in to two models, centralized model and decentralized model. Greater London is thought as centralized model and Ruhr area or Randstad are thought as decentralized model. As same as urban form open space form is different among these two models. For centralized model, green belt is formed around urban area, but for decentralized model it is settled in between major cities.

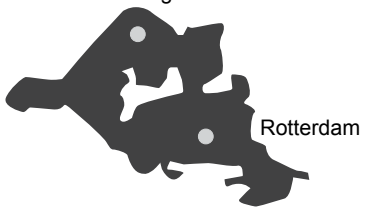
flowscape/infrastructure

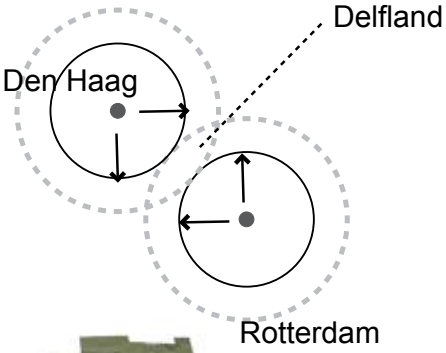


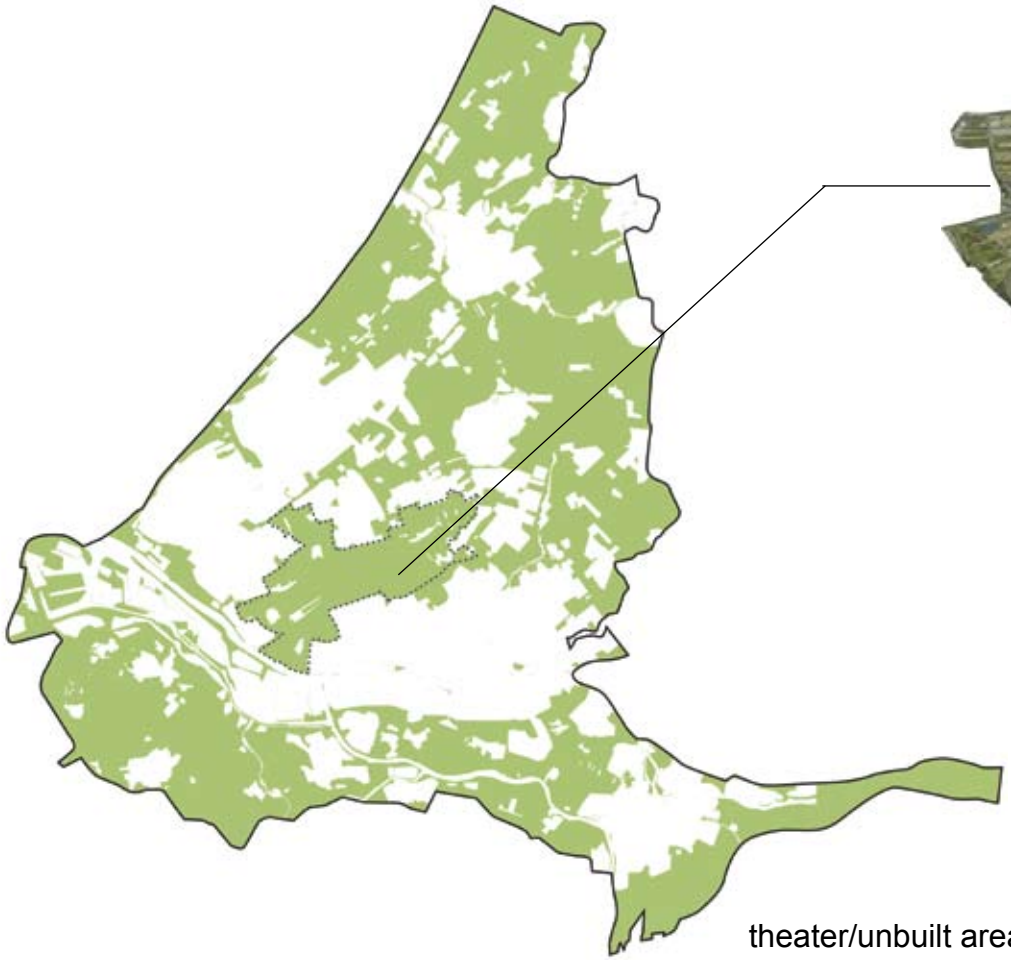
plantation/built area



Un-built space in Ruhr area and the South Wing







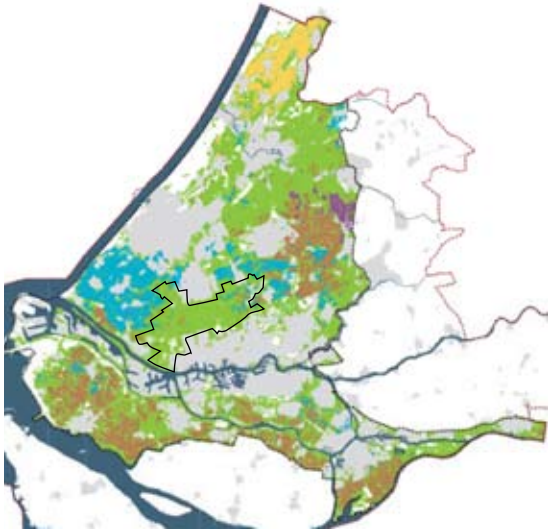
theater/unbuilt area

Delfland

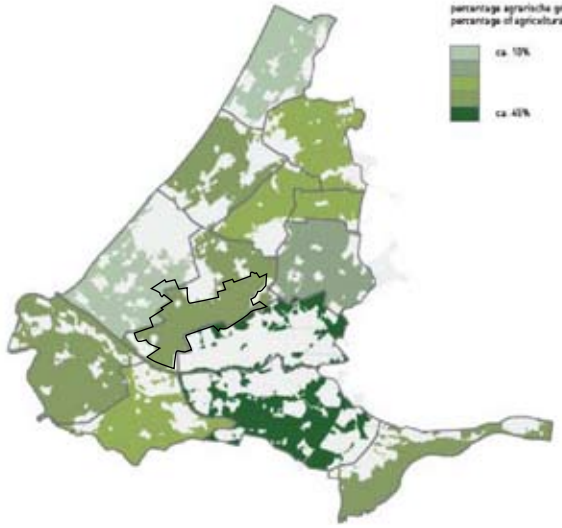
Delfland is 7,500ha green open space between Den Haag and Rotterdam. It is remained to be open as a buffer zone in order to avoid connecting these two big cities.
As we look Den Haag and Rotterdam area as one metropolitan built area, Delfland can be seen as void in the middle. It use to be open space between two big cities but now its set in middle of metropolitan area.
As we see infrastructure in Delfland, three highways and two train trucks area passing though this area. Open space is thought as passing through area by high speed infrastructure but on the other hand we can say it has possibility to have good accessibility from big cities.

Delftland has possibility to be recreational area from size, location, context with cities and accessibility point of view.

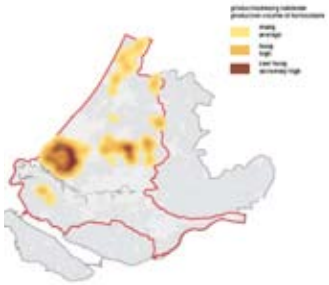
Agriculture



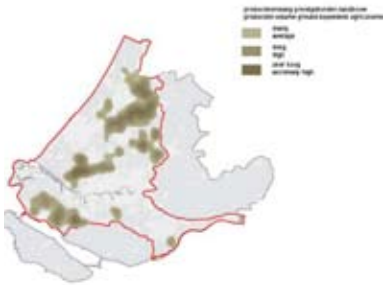
Delfland is grass land agricultural area.



Delfland has around 40% of agriculture land used by business with a precution valume of 20-70 NGE.



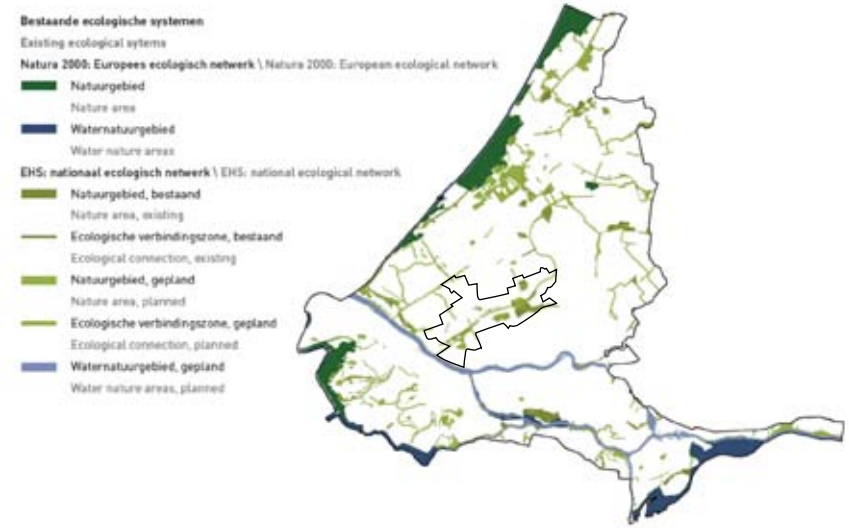
Intensive agricultural area



Extensive agricultural area

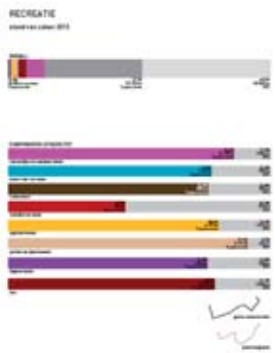
The economic importance of the horticultural sector is growing, on the other hand extensive farming is continues to decline.

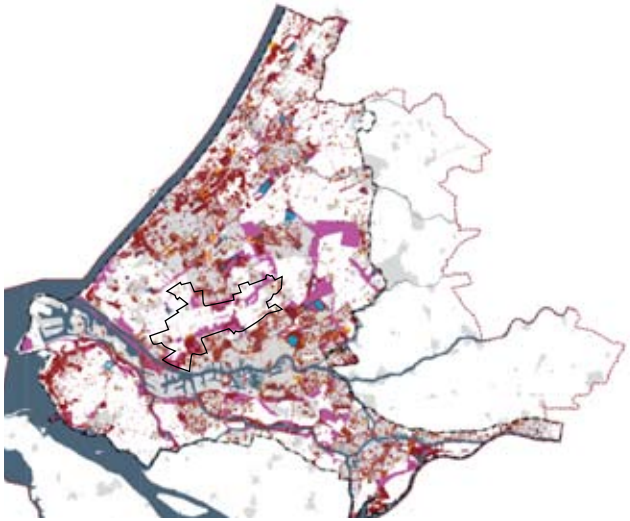
Ecology



Planned ecological line is passing through east to west of Delfland.

Recreation





Recreaional activity is concentrated on the edge of Delfland

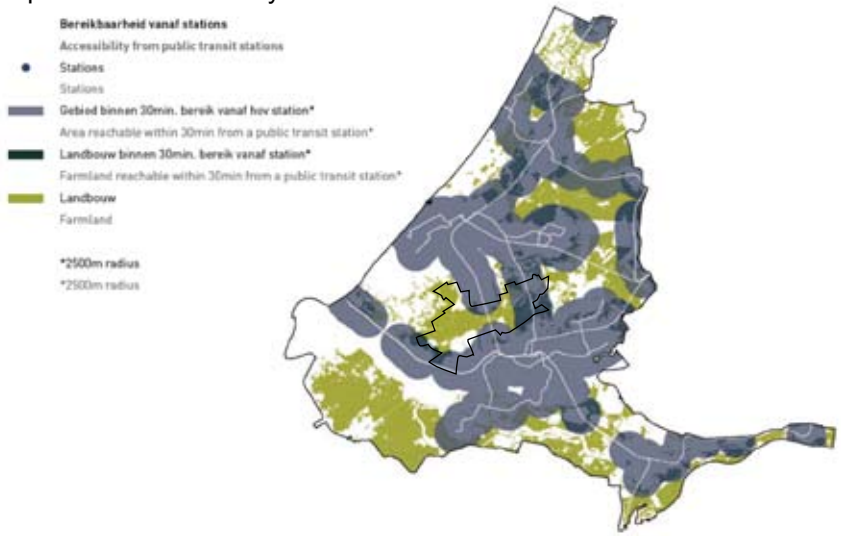
Water system

One Provincial waterways is passing through Delfland. It is connecting whole area of South Wing from Liden to Rotterdam. Also some boezen are passing through in west and east side of Delfland.

Motorway and secondary road accessibility

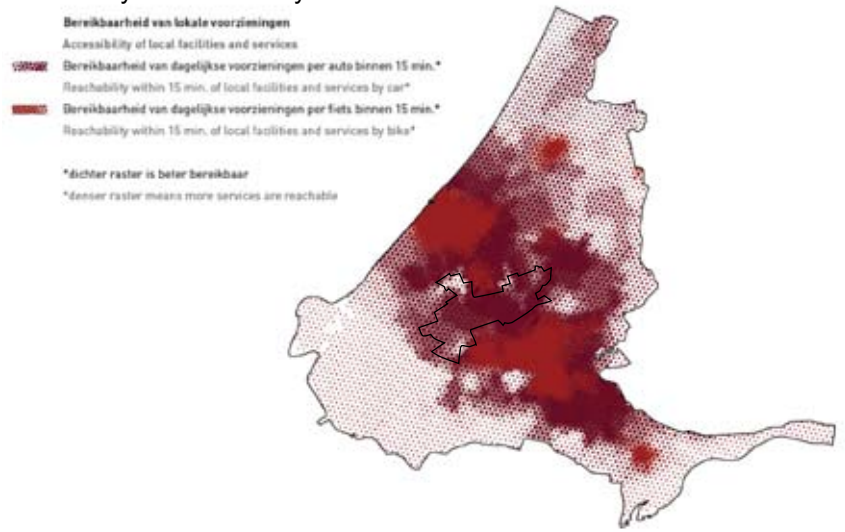
Middle of Delfland is not good accessibility from motherway and secondaly road. It will be improved by making new moterway exits and road inside Delfland.

Public transportation accessibility



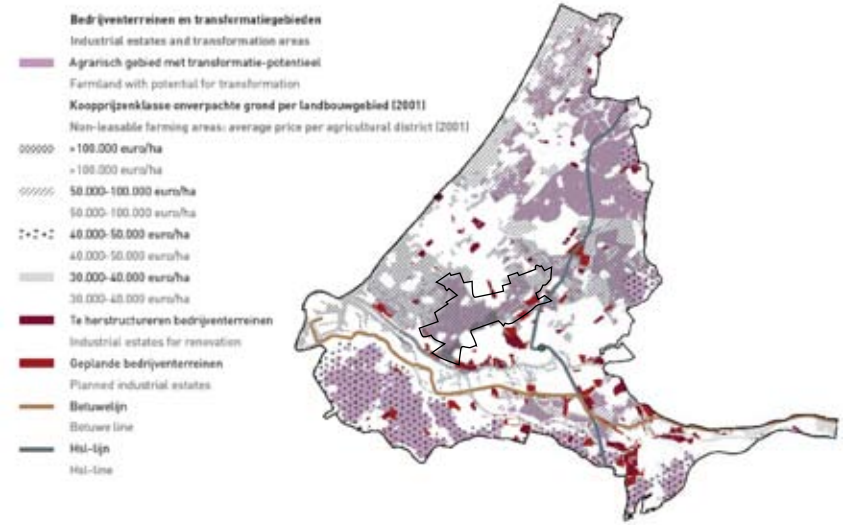
Middle and west part of Delfland is not good accessibility from public transportation. New train station will help whole area accessibility.

Accessibility of local facility and services

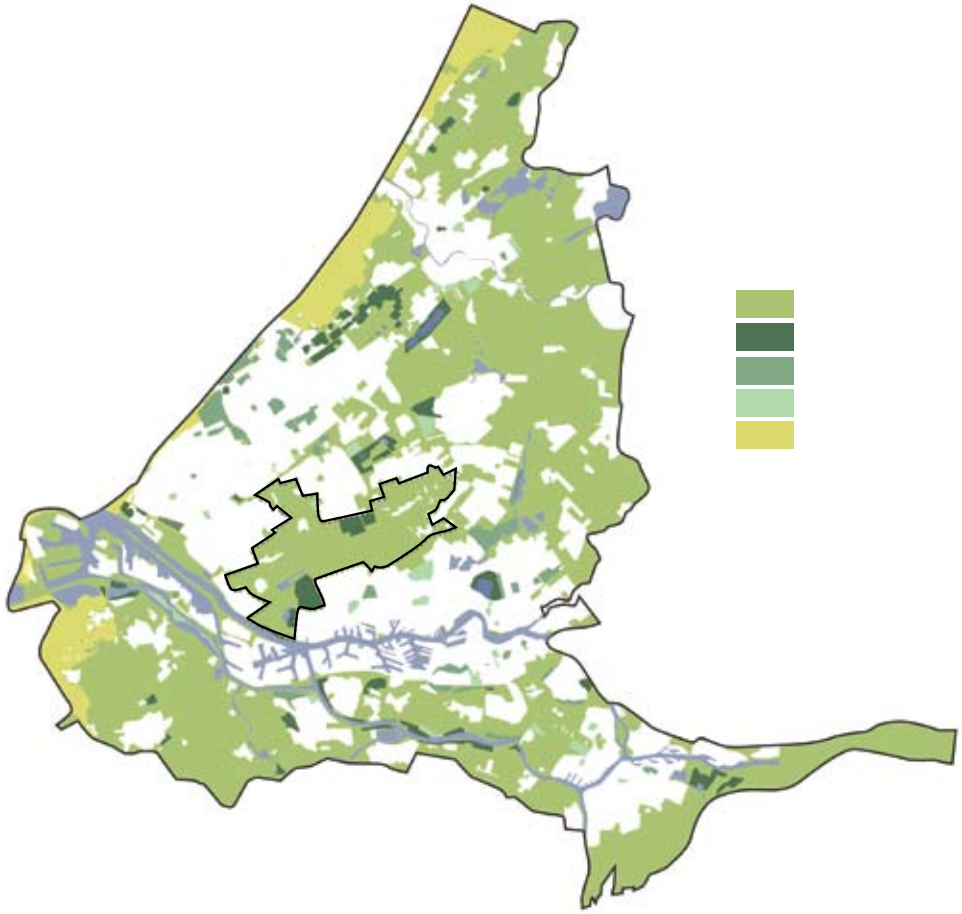


Almost whole area of Delfland is with in 15min by car and it is difficult to reach by bike.Well car connection and bike renting service will help who come Delfland by public transportation.

Potential transformation areas



Delfland has potential for transformation from farmland. Land price is not cheap that some economic activity will be need when transformed.



Economy

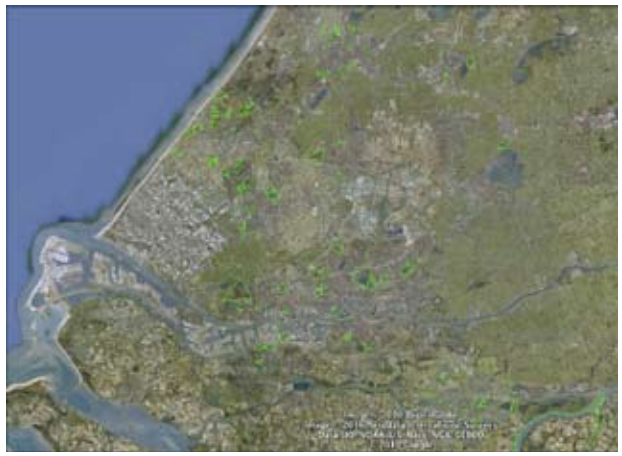
Economic activity is mostly concentrated in urban area. Delfland is almost absent of economic activity.

Amount and size of park in South Wing

Compare amount of park in South Wing with Greater London and Paris, It is obvious that it is much less in South Wing. In Paris Bois de Boulogne is locate west side of the city and it is around 1,000ha. In Greater London, amount of park is a lot but also they have big park such as Richmond.
Talking about in the Netherland, North Wing has big park such as Amsterdamse Bos and Park 21 is planned in Haarlemmermeer polder.
From map it can be said amount and big size of the park is lacking from South Wing.

Parks inside and around Paris

Parks inside and around London

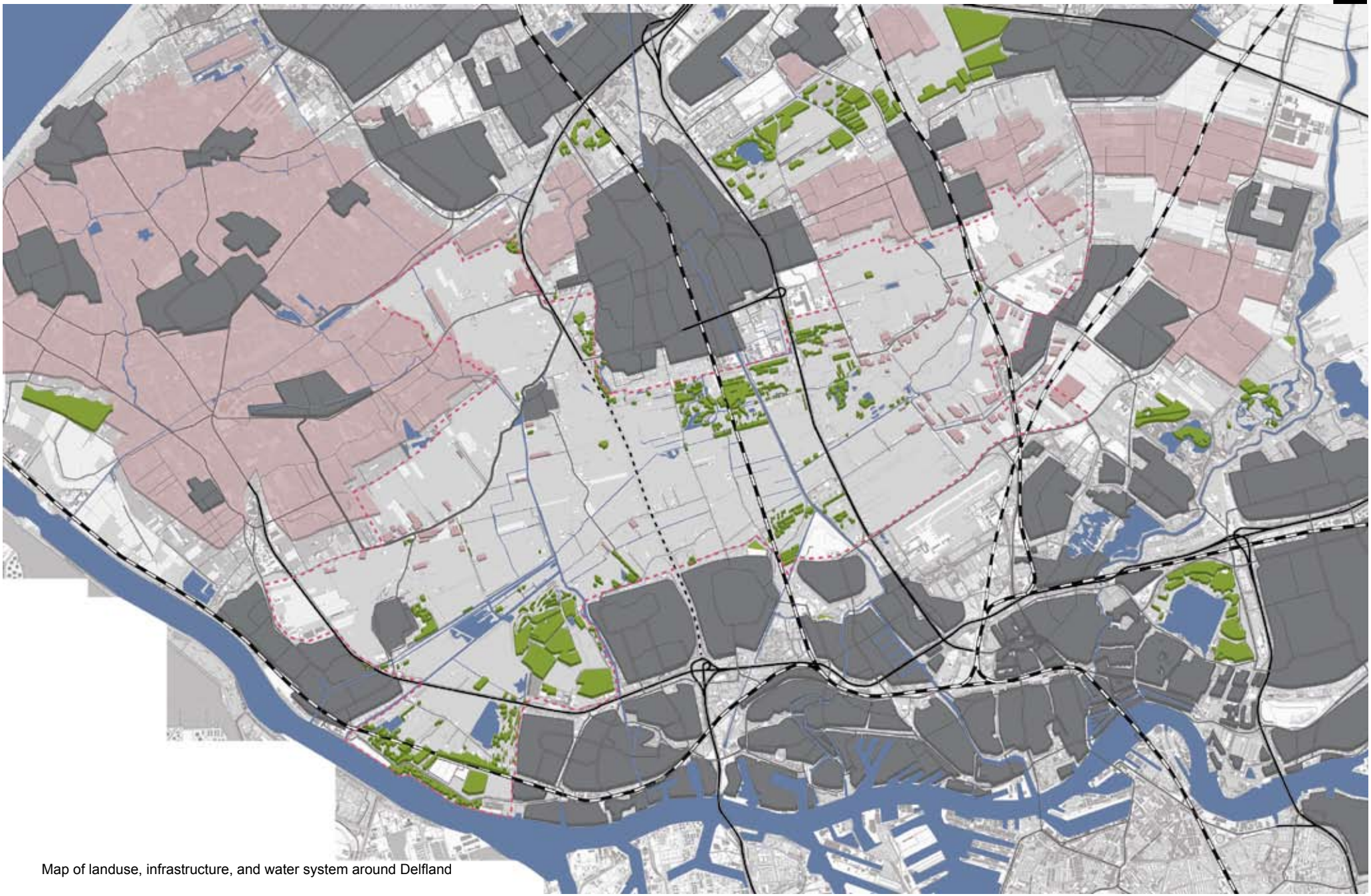


Parks in South Wing

Park and Landscape

What is the difference between landscape and park?
Normally, landscape in the Netherlands (except some part such as dune area) especially polder grassland is owned by private. Also it can be said more strategic oriented the spatial quality oriented. Park has more densified natural element, vegetation, or built and un-built programs.
Also park has clear structure, composition and spatial quality.


Den Haag
Delft
delfland=7,500ha
peat area, polder structure,
mainly aguricultural use, several towns, green house, woods
Rotterdam



Map of landuse, infrastructure, and water system around Delfland

Water structure

Landuse

Infrastructure

Water system, landuse and Infrastructure of Delfland

Water system-Almost whole area of Delfland is constructed by polder structure. It can be seen like all water ways are connected but beside the main canal and polder there is big height difference. It has quite complex water system in Delfland.

Landuse- Delfland is surrounded by built area, such as residential area, industrial area, business area and grass house. Some of the inside edge of the Delfland, there are some woods areas that can use for recreation.

Infrastructure-Already mention but three highway and two train trucks are passing through Delfland. Two highways and trains are connecting Den Haag and Rotterdam. There is no highway exit or train station in Delfland. Inside Delfland there is not much road. There are three main roads running from north to south but no main road connecting east to south.

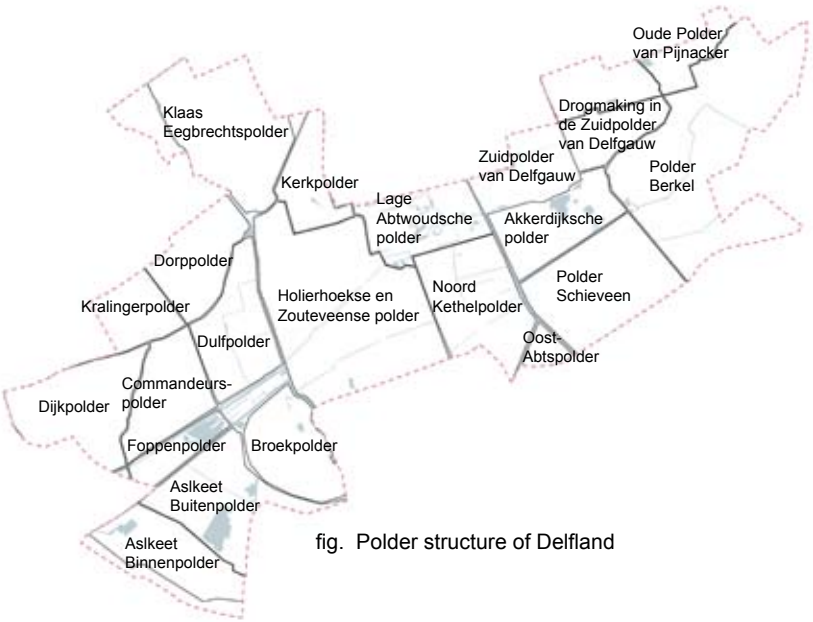


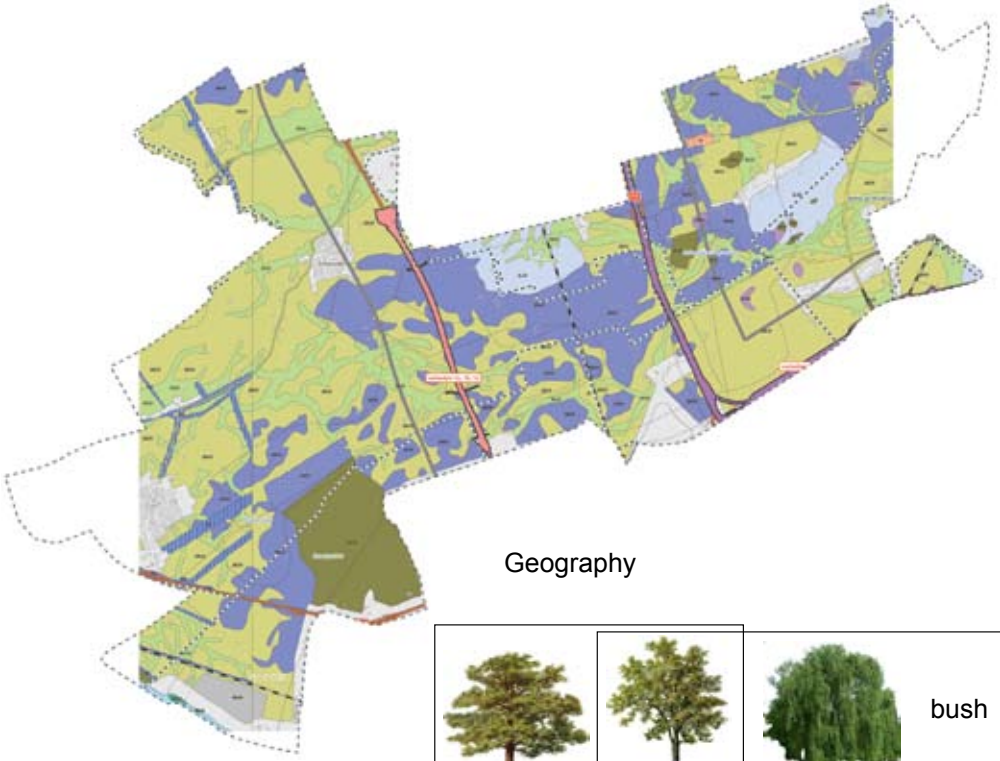
fig. Polder structure of Delfland

fig. Polder and canal hight

Water system in Delfland

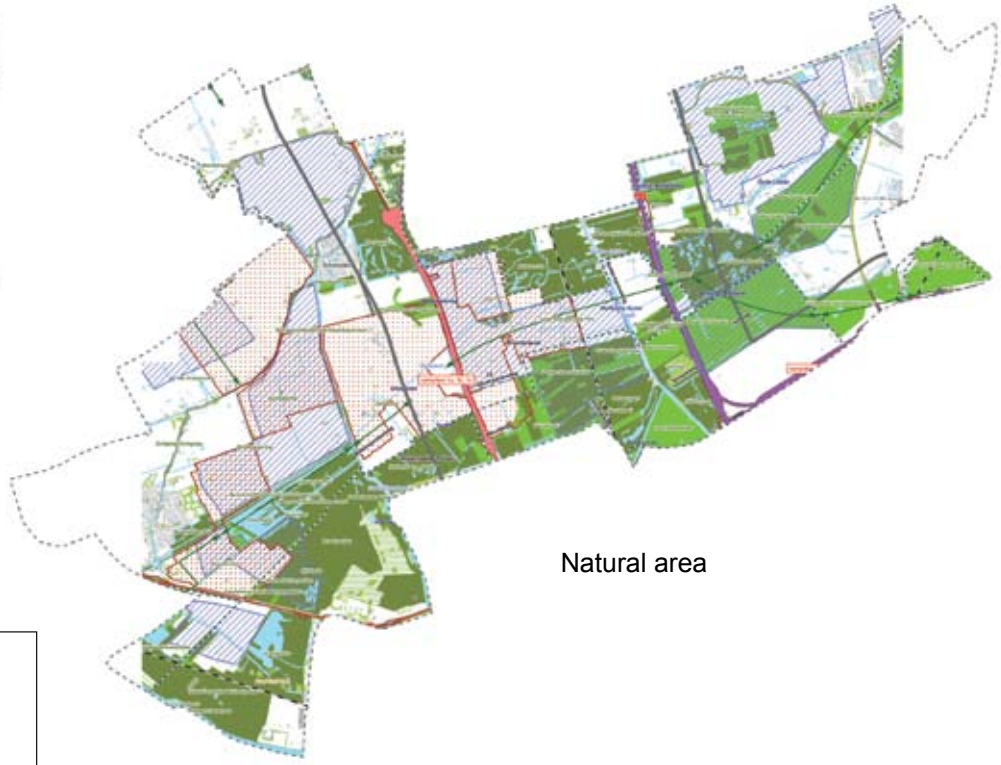
Delfland is constructed by twenty-one different polders. Each of them has different patterns, water management system and height from ground is also different. Deepest point of the Delfland is -5,4m in Polder Berkel and Polder Schieveen and highest point is 2.7m in Polder Berkel. It looks flat but has 7.9m-height difference in this area.
Main canal running through Delfland is normally around 0m height. Map shows like all waterways are connected and accessible but from canal to polder it needs rock to change height.

Different polder systems and height difference between canal and polder can be said character of Delfland.

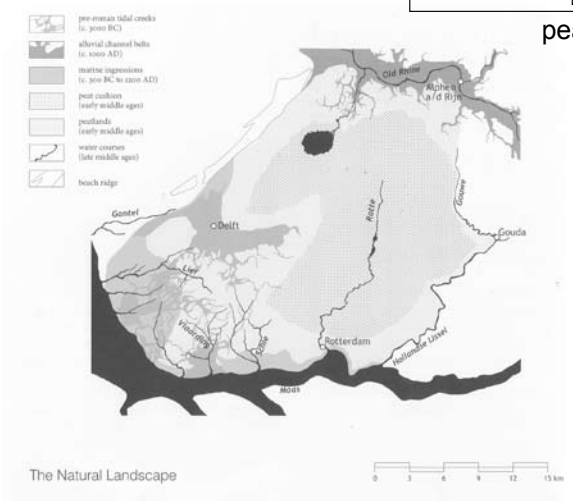


Geography

peat clay bush



Natural area



Geography and natural area in Delfland

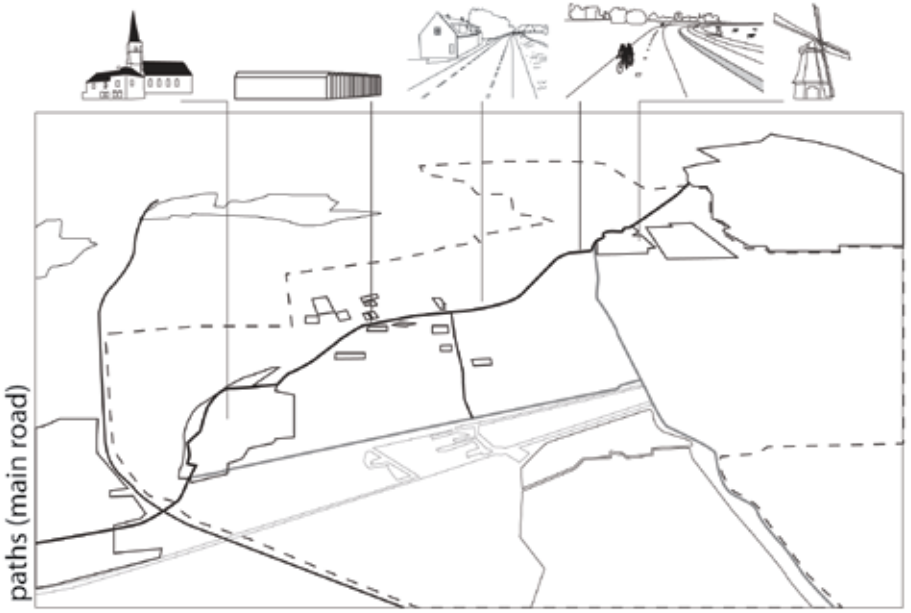
Geography- Natural landscape of Delfland is mostly made by clay and peat. Clay is coming from sea and Maas after the last Ice Age. Around 2300BC, the process of sedimentation thick layer of peat was formed on top. The influx of nutrient-rich river water, large swamp forests grow around streams.
This two different soil makes diversity of vegetation and can help to make ecologically for this area.

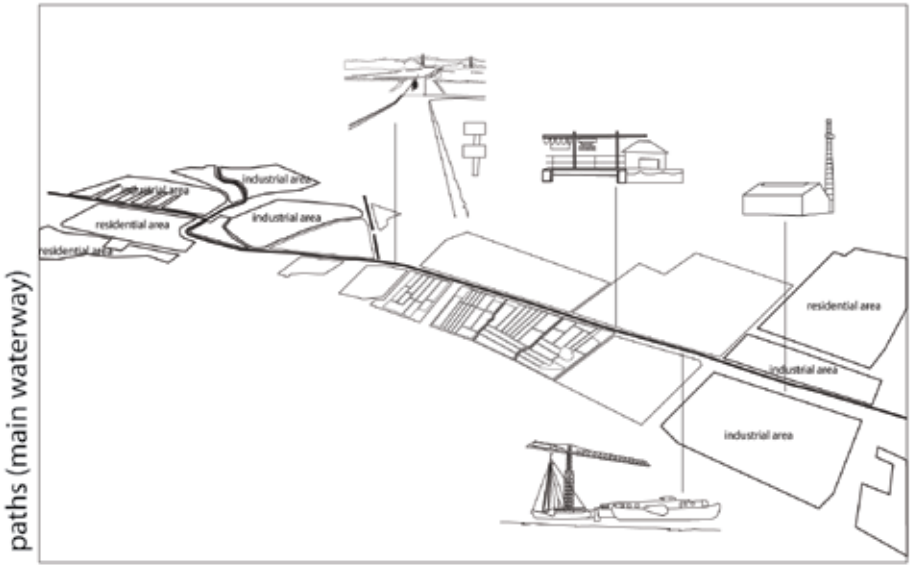
Natural area- Existing and government planned nature area are concentrated in the edge of Delfland. In the middle part of the area is remaining as existing landscape. When adding existing and planned nature areas, it makes ecological line from east to west.

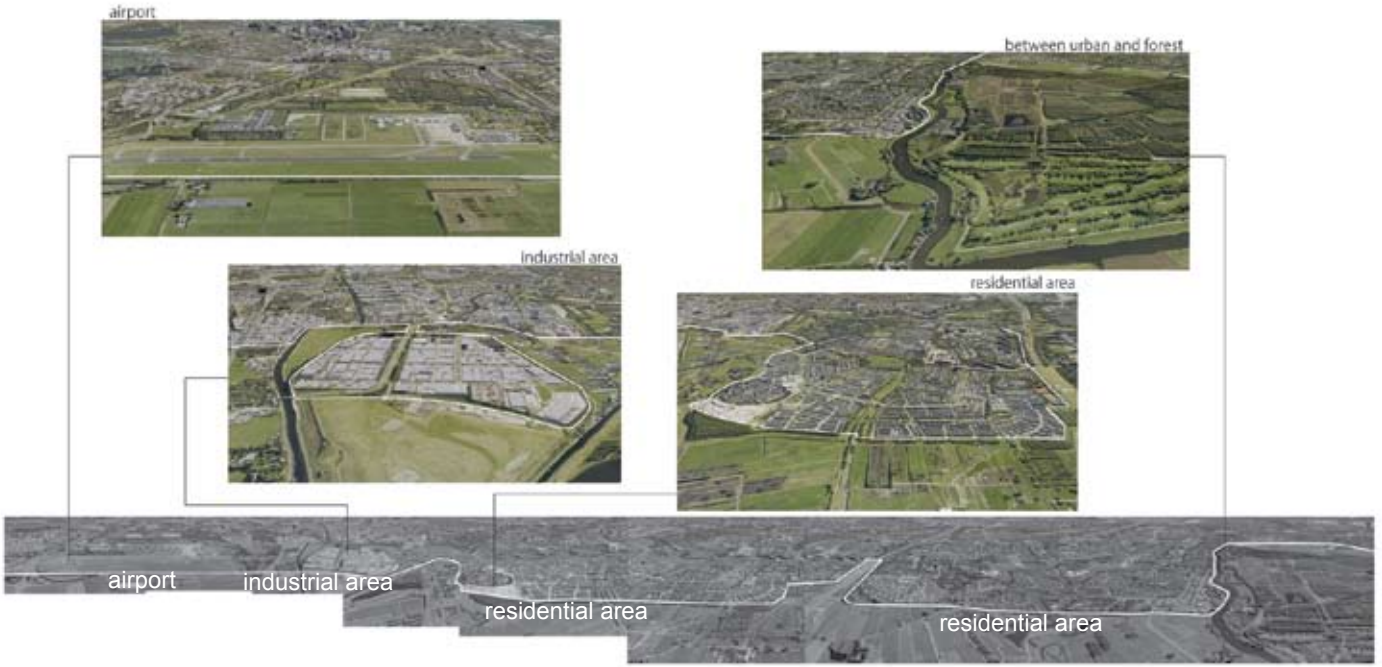
‘edge of cities’
flowsacape- highway and railway

Connection between North and South

Historically this area has strong connection from north to south, which is connecting Den Haag and Rotterdam through Delft. In old age, canal was main transportation way. Now still ship docks and industrial areas are taking place along canal near cities.
Moreover, already mention before that two highways A13 and A4 (planned) and train truck is also running through this area from north to south. There are enough infrastructure connecting north and south but there is no recreational path through north to south.



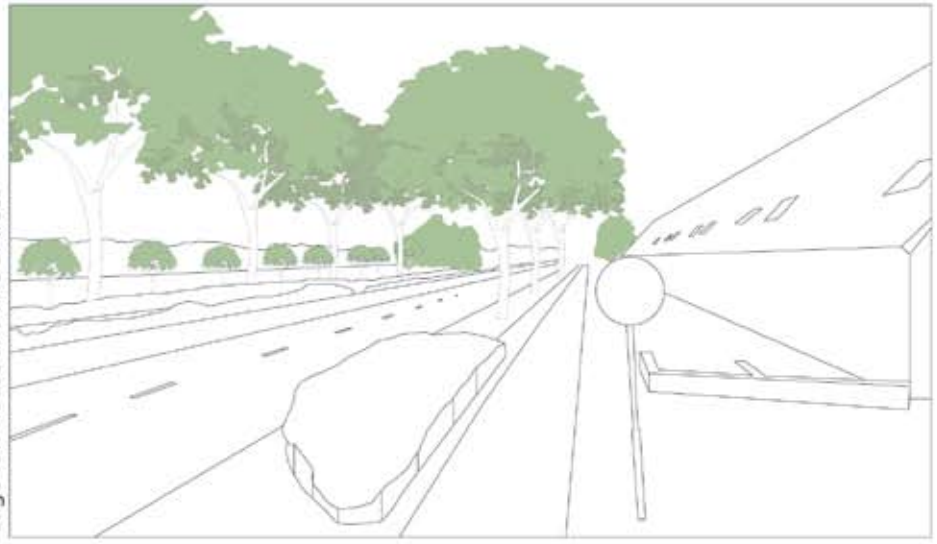




Edge of Delfland

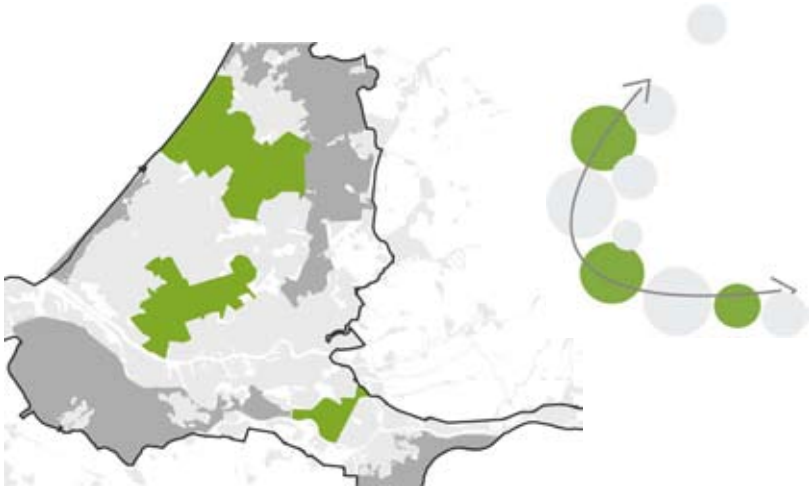
In Rotterdam side, airport, industrial area, and residential area are facing to the site. Normally edge of the site and built area is divide by planting trees or water way.
In Delft side, some area has small neighborhood parks in between residential area and site. But there is not much continuity now. Even bike path are not constructed between these two.
Preparing Delfland as recreational area, it is needed to make clear entrance to Delfland and continuity from urban fabric.

edge-local park



edge-low house and line of trees

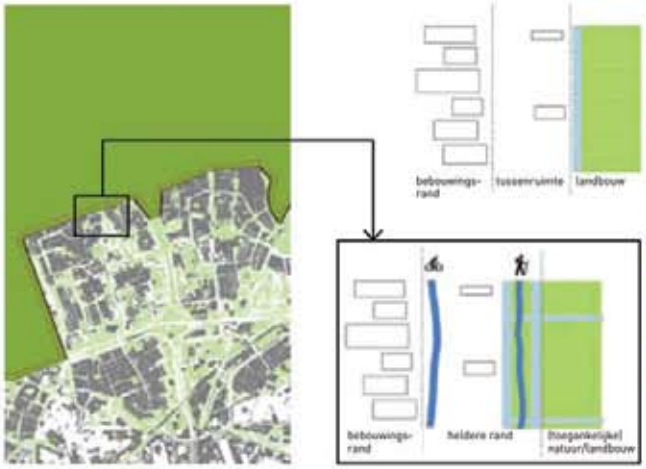
edge-entrance to landscape



Government plan as Metoropolitan Park

There is the Government plan to make Delfland as metropolitan Park. It is considered from eight aspects, edge design, target of user, waterway, accessibility by car, accessibility by public, accessibility by bike, recreational facilities and green connection.
However, it is still based on existing landscape that all strategy is point (facility or station) or line (path or ecological line) and have not considered about surface (such as field). Also even it is name as metropolitan park main user is focus on neighborhood inhabitants. Moreover, accessibility by car is considered but there is no road inside park that people cannot go in by car. Recreational facilities locations are planned but specific function is still not clear.

1. edge design

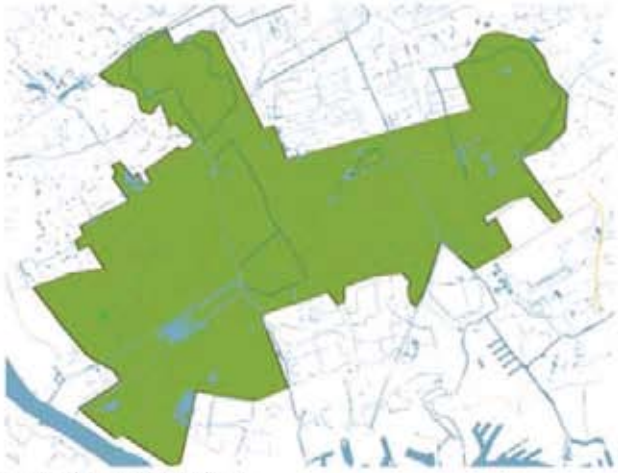


clear boundary
- slow traffic infrastructure bike / walk path
- ditch
- vegitation

2. target of user

inhavitants living in surrounding villages and towns
1.3 million people

3. waterway



expand recreational use

4. accessibility by car

- 3 highway exits are proposed for connecting from many cities
- each car from surrounding cities can reach within 20min in off-peak time

5. accessibility by public

train station and bus connection

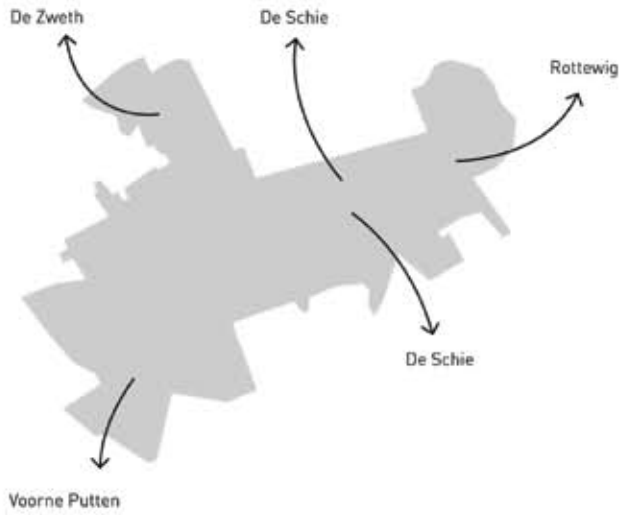
6. accessibility by bike

strong recreational network which supports a metropolitan landscape
cycling, walking distance and marathon tour

7. recreational facilities

different recreational facilities for one day visit, one cycle, car or public transport travel

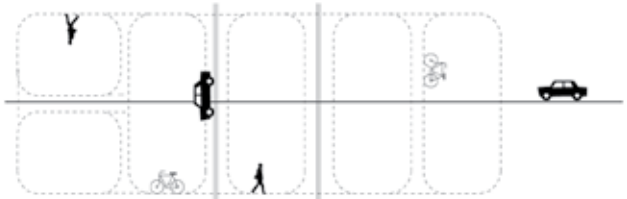
8. green connection



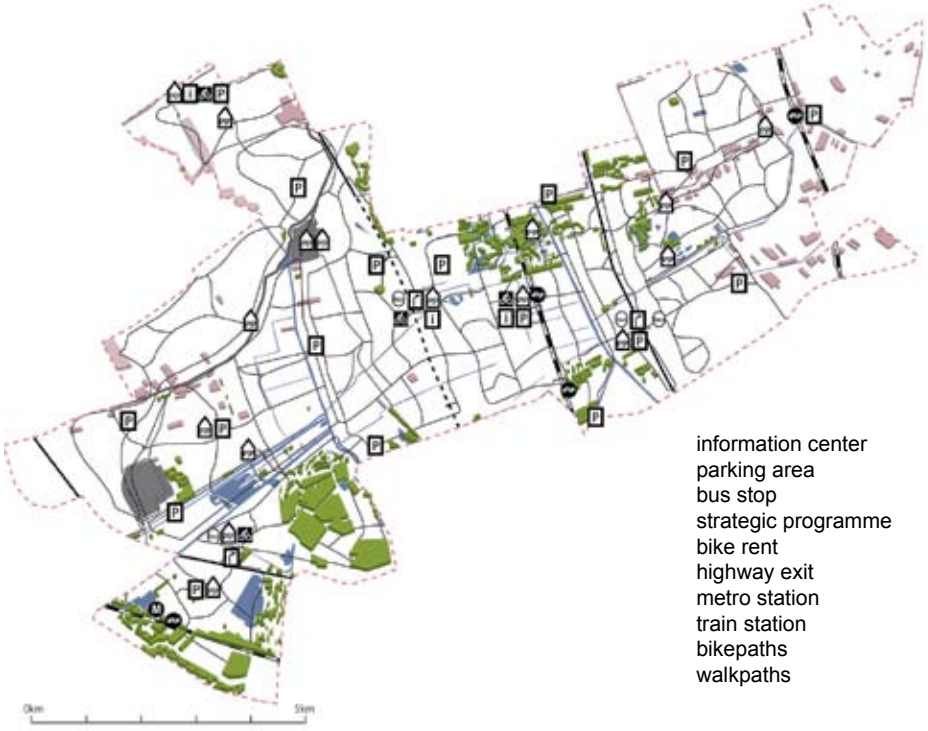
Reconsider about government plan

Target of users can be expanding for metropolitan inhabitants by improving accessibility by car and public transportation. From government plan people have to change transportation from car or train to bike at infrastructure node. But consider the size of the Delfland, it is impossible to reach all area by bike or foot. From research about recent landscape transportation, it is said that the combination of different kind of transportation is desirable.
Moreover as park, government plan does not mention anything about spatial quality or composition.

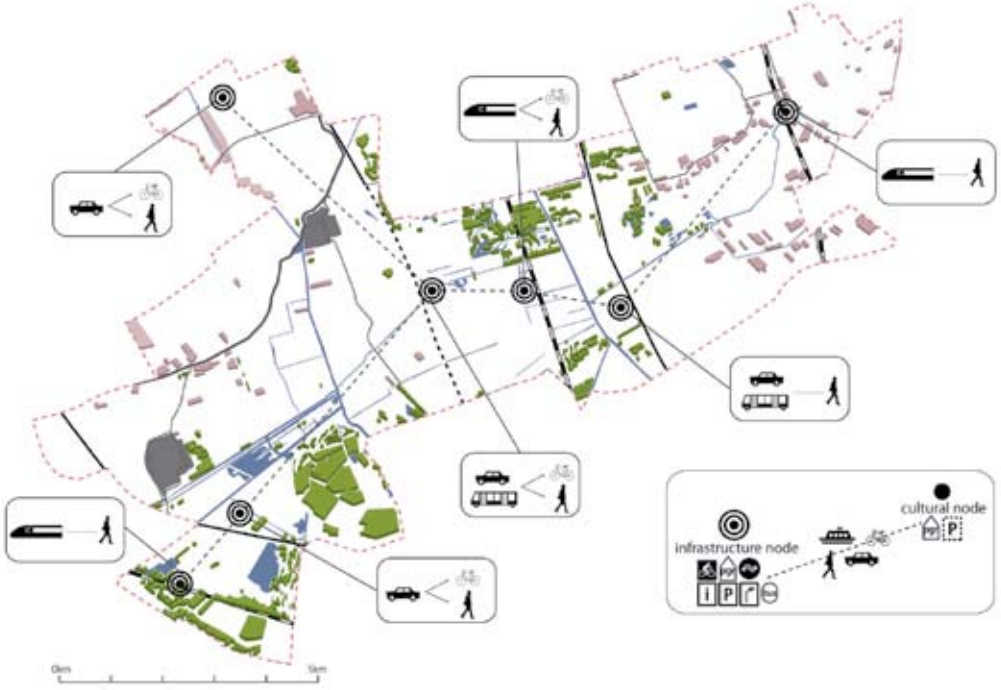
- target of user are inhabitants, who living in surrounding villages and town+ metropolitan inhabitants
- type of different kinds of recreational facilities/probramme are not mentioned
- still questionable that green connection is needed or not
- edge design is not cleary defined
- no consideration of spatial/visual quality as park
- main road is not enough by existing situation



combination of main road and bike path diagram

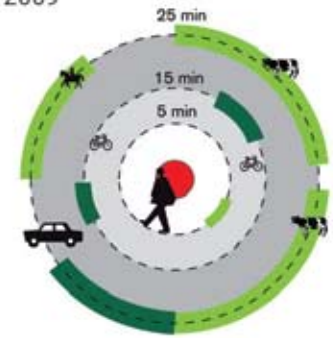


information center
parking area
bus stop
strategic programme
bike rent
highway exit
metro station
train station
bikepaths
walkpaths



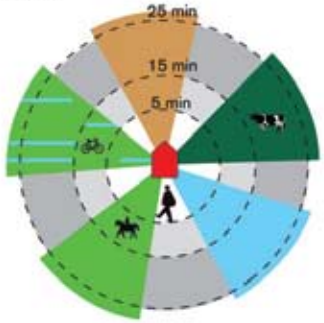
access to landscape

2009

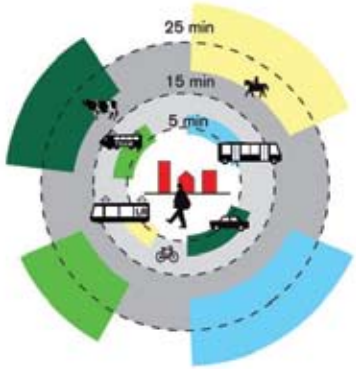


transportation and landscape is separated

2040



recreational or landscape are in different distance

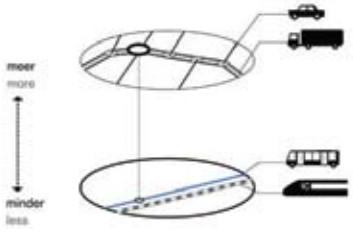


different kinds of transportation near by

combination of diffrent kind of trasportation and landscape

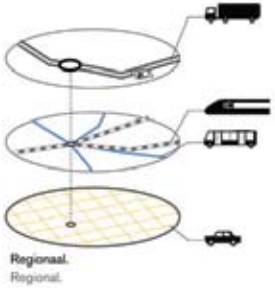
transportation infrastructure

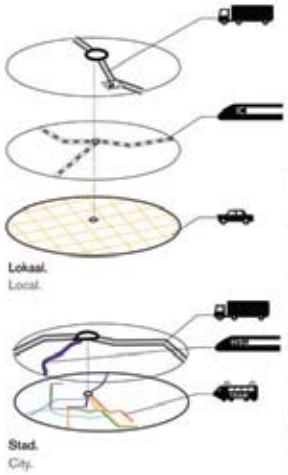
2009



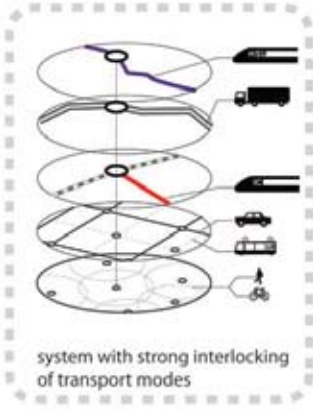
limited hierarchy of networks

2040

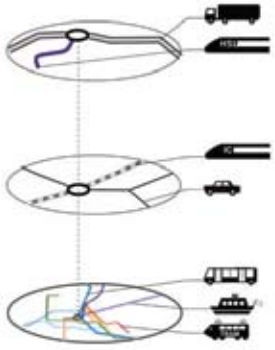




acceptance of cars for short distance; public transport for longer distance

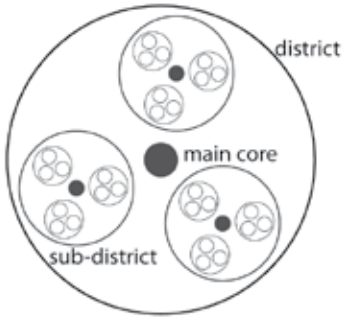


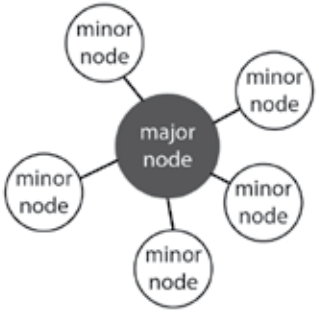
system with strong interlocking of transport modes



strong hierarchy of networks with substantial investment in local public transport

Static hierarchy

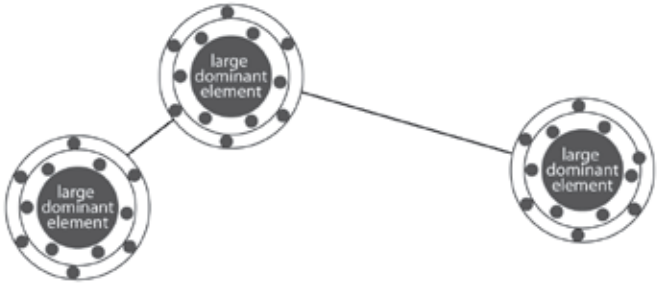




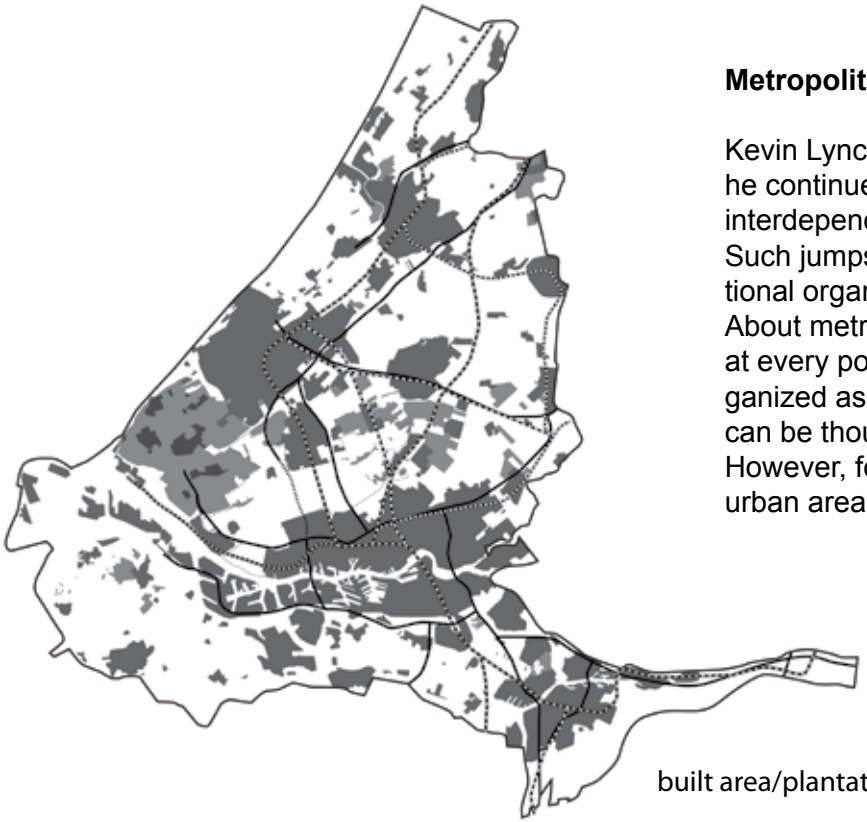
nodes

- infrastructure oriented node
  - highway
  - rail way
  - mail road
- cultural oriented node
  - music hall
  - recreational facility
  - museum
- commercial oriented node
  - shopping mall
  - amusement park

Dominant element



a very powerful landmark



built area/plantation

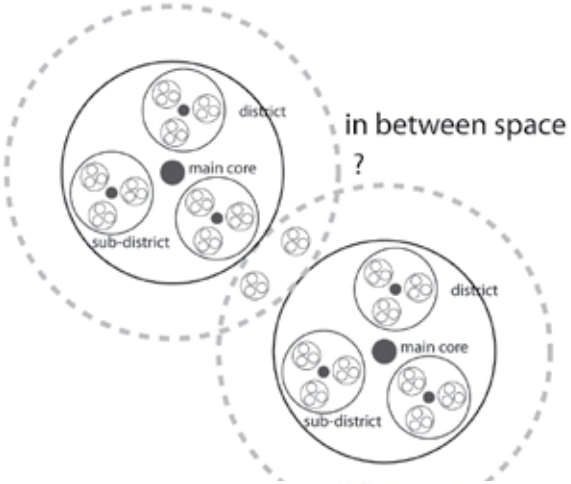
Metropolitan form

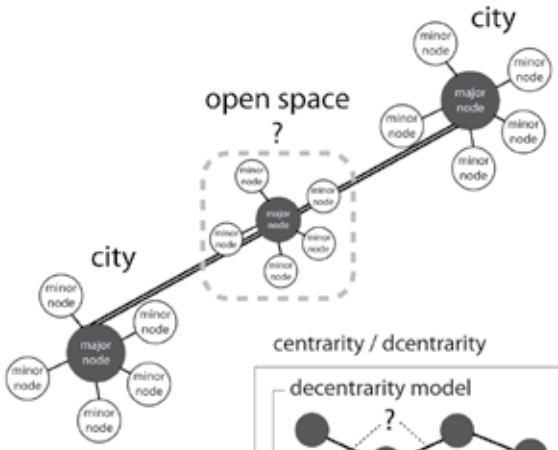
Kevin Lynch is describing metropolitan region as ‘now the functional unit of our environment’. And he continue that ‘the new mean of communication which allow us to live and work in such a large interdependent region, could also allow us to make our images commensurate with our experience. Such jumps to new levels of attention have occurred in the past, as jumps were made in the functional organization of life.’
About metropolitan form he describe that not whole metropolitan region has equal intensity of image at every point. He mentions that form of region maybe composed as static hierarchy. It night be organized as a major district connecting sub-districts, which each contain sub-sub districts. Also form can be thought as relation of major nodes and minor nodes.
However, focus point is that in metropolitan region normally either district or node are located in urban area and not in un-built area.

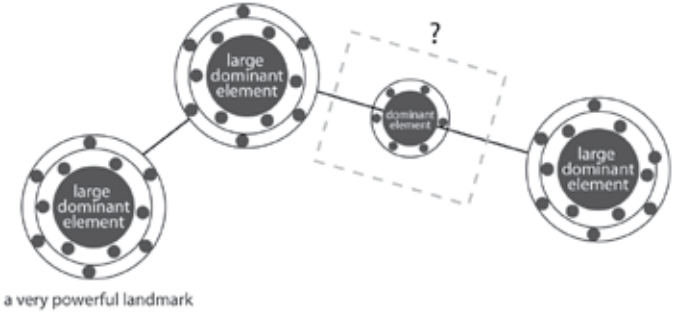
metropolitan scale

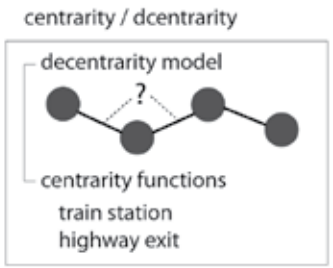
urban area
industry area
office area
natural area
polder

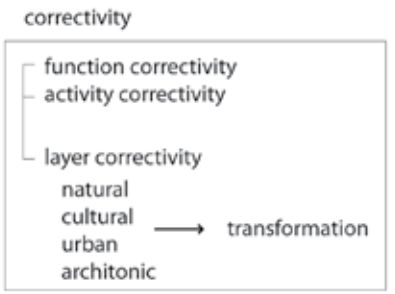
becoming no hierarchy

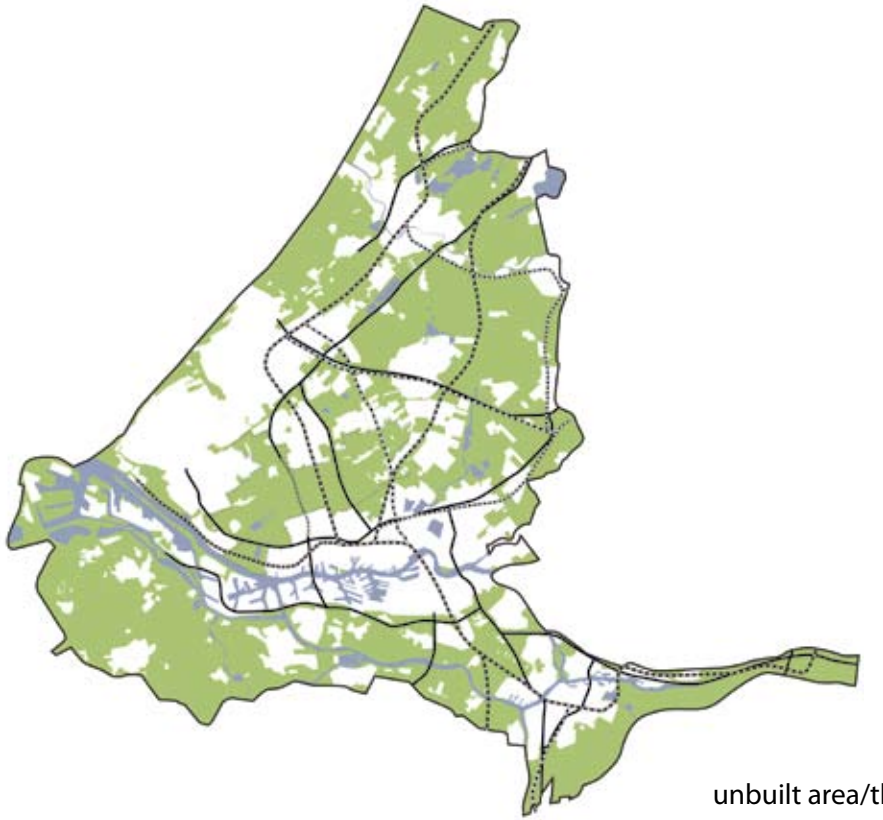












unbuilt area/theater

District or node in regional open space

Now there is no major district or node in regional open space. Open space or unbuilt space can be thought as in between different district or node. Even highway or train truck is there, it is passing through without stopping. But as Kevin Lynch mention, if metropolitan image is formed by high-speed highways or transit lines then metropolitan node can be set in open space by making stops.

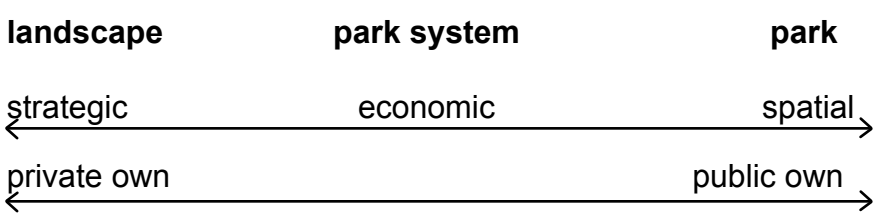
As creating Delfland based on metropolitan form, making node or district will be important.

Landscape and Park

In order to think about composition of Delfland, it is need to rethink about social demand and economic development of regional open space.

Social demand / Spatial quality
'Tussentuimte' mention that, the continual rise in the standard of living has led city-dwellers to make ever greater demand on the spatial quality and recreational options in the immediate vicinity of the city. Possibility to offer a wide range of experience by making strategy as 'diversity'. (Atelier Zuidvleugel)

In order to answer for this social demand as we see from government plan it has limit for recreational use by landscape especialy agriculture area which is private owned land.



spatial quality and polder

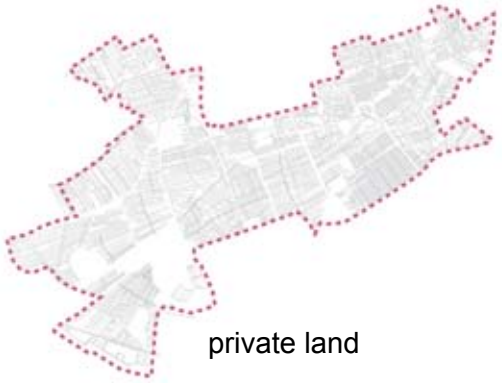
Economic development possibility
Delfland has good economic performance (agriculture) in the area over the provincial area.
But The Emscher Landschaftpark has great promoted the economic development of the Ruhr region in Germany.
The landscape in relation to economic development coheision and identity are absence in South Wing. (Atelier Zuidvleugel)
Economic development can be consider as combining aguricultural use and other investment such as housing, commercial area or recreational facility.

Combination of landscape and park

In order to think about spatial quality and diversity for recreational use and economic development, combination of landscape and park can be considered as composition for Delfland.

Three scheme of combination models (linear park, middle park and edge park) is going to be considered and compared to find out good combination pattern of landscape and park.

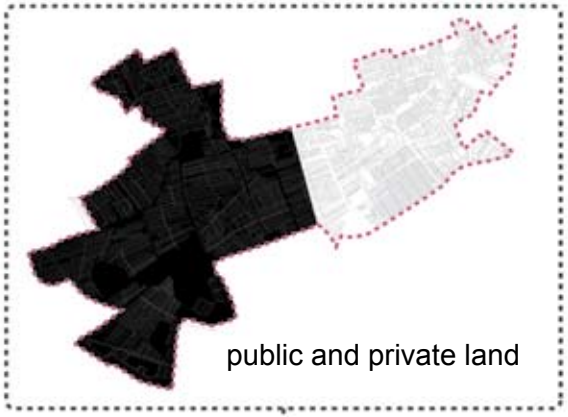
landscape (government plan)



private land

only possible to make bike path and point attractions

combination of landscape and park



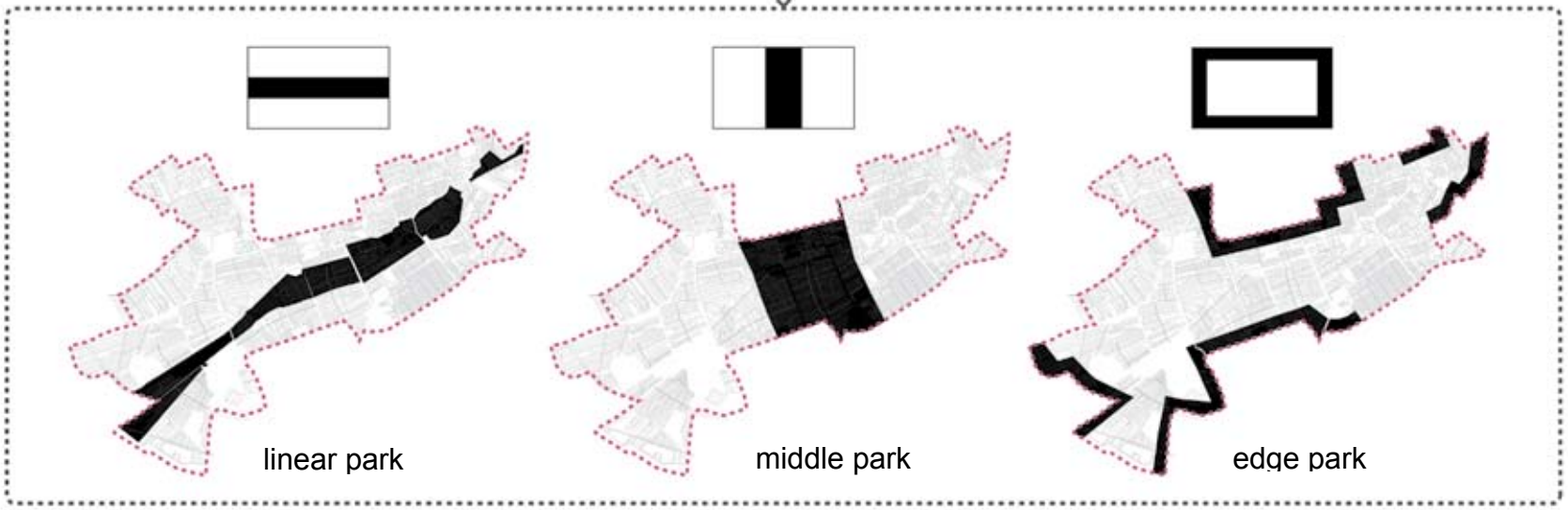
public and private land

park

public land

lose all aguriculture economic activity and typical landscape

combination models

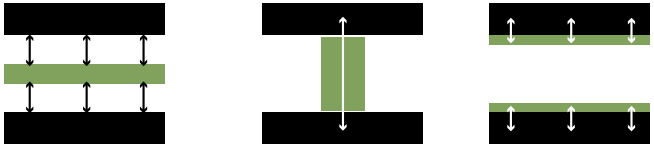


Three models

In order to think about park design for Delfland, three models are considered in advance as different scheme. These three models are set in different spatial location and spatial meaning for regional and site scale. In the end of strategy, these three models are evaluated and one model will be chosen for design.

Linear park | Middle park | Edge park

Spatial location of park



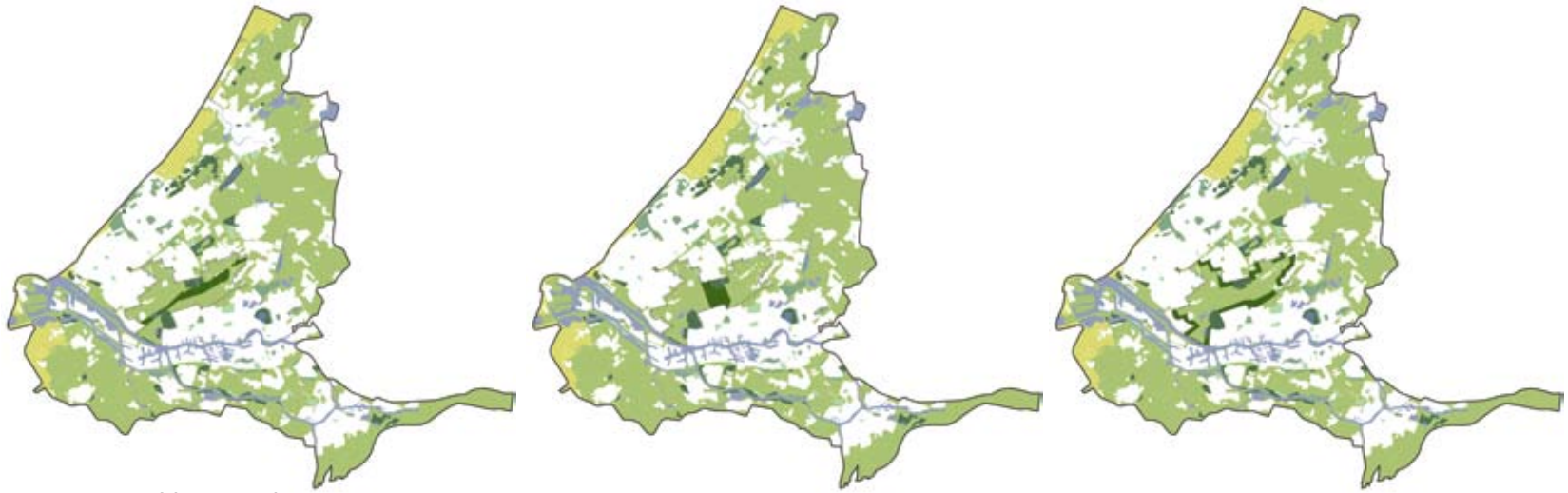
West-East | North-South | Edge

Linear park is located in middle of Delfland trough west to east. It is helping to create ecological line and also equal distance from urban edge.
Middle Park is located in between two highways and connecting Delft and Rotterdam. It imporive north and south recreational connection.
Edge park is located just next to built area. This model is close to existing goverment plan of natural area.

Size of the park 1,000ha~2,000ha

From case study, metropolitan park is around 1,000ha (Amsterdamse bos, CentrO etc). Delfland is in between two majoy cities that 1,000ha to 2,000ha consider as approporiate size.

Theater / unbuilt area and park relation



Linear park | Middle park | Edge park

Plantation / built area and park relation

Linear park is cutting two major cities (Den Haag and Rotterdam) in order not to combine cities together.

Middle park is connecting two major cities by recreational use.

Edge park is stopping urban extention both from Den Haag and Rotterdam.

Flowscape and park relation

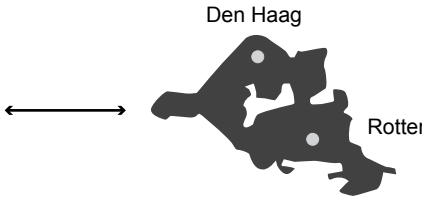
Connect to three highways and two train truck.

Connecting to tow highways and one train truck.

It does not connect to any infrastructure.

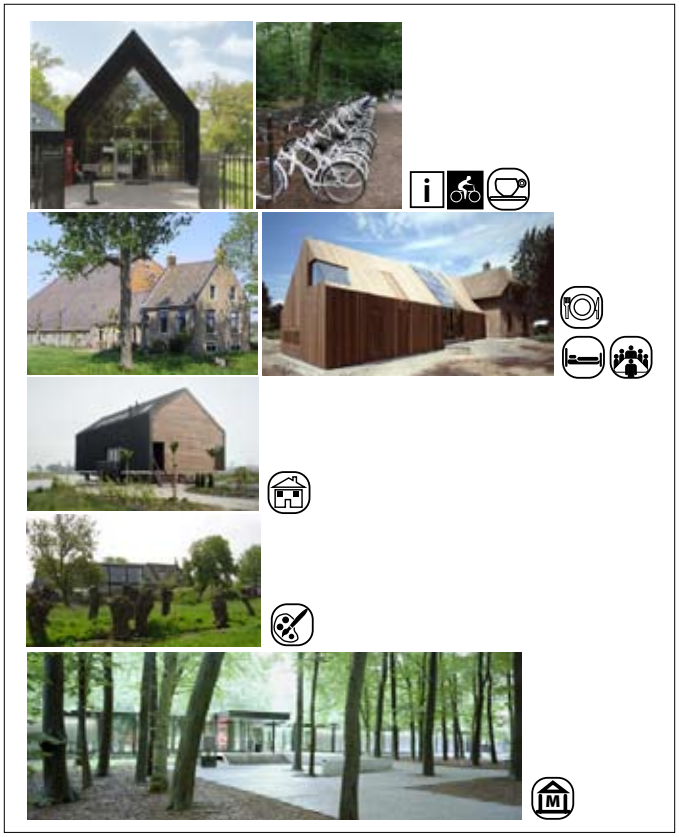
Program and activity

Park in Delfland can be positioned as the ‘escape zone’ from urban / built space. Therefore, program and activity in the park are considered which cannot experience in urban space. For example as un-built program, champing or bird watching, which requires large space or nature area. Moreover for facilities, congress room, studio and hotels are considered. These facilities are also located in urban but by locating in open space it gives different environment even it function as same in urban.

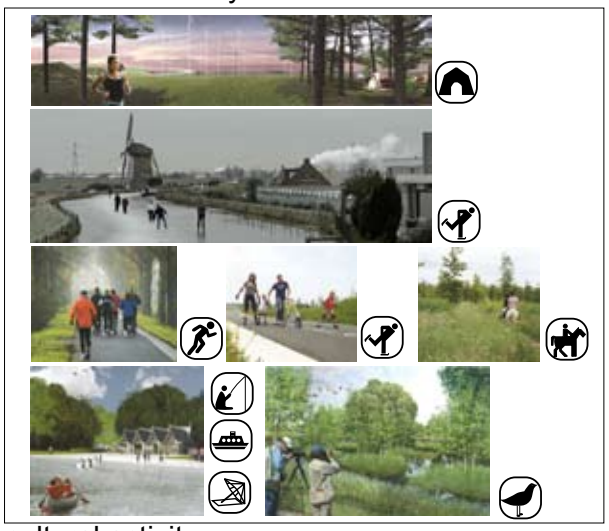


escape zone from urban (built space)

urban and cultural facility



recrational activity



cultural activity

vegitable garden

garden

field

lake

marshland

woods

urban facility

housing
hotel
coference room
business office
restaurant
cafe
shop

cultural facility

museum
studio

cultural activity

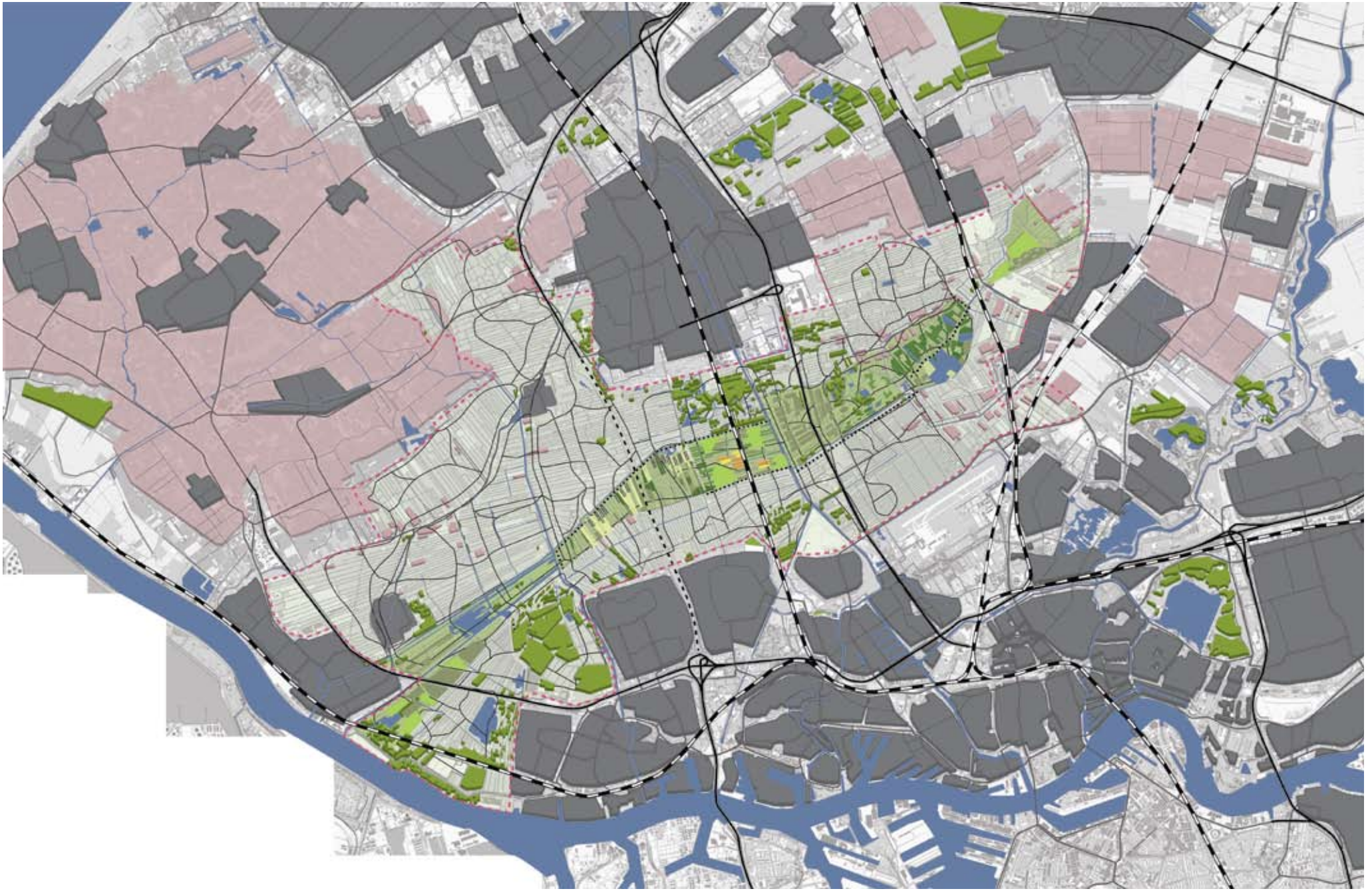
event
exhibition

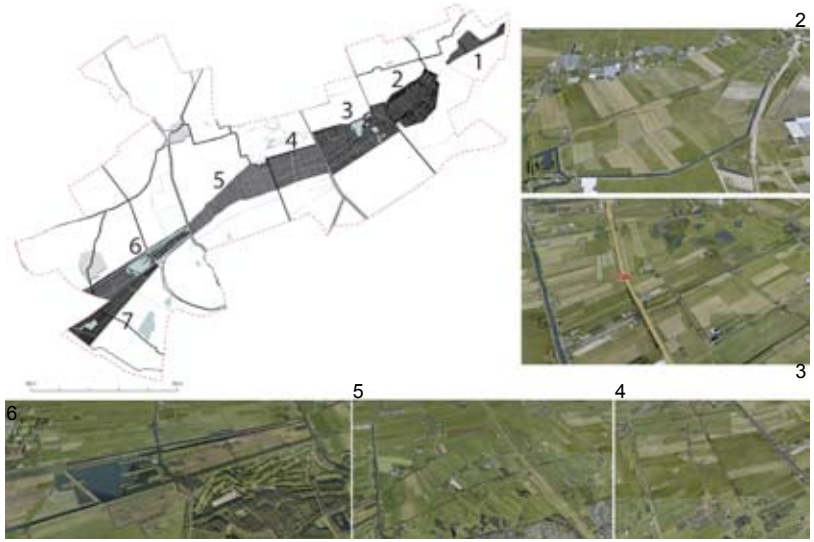
recreational facility

information center
bike rent

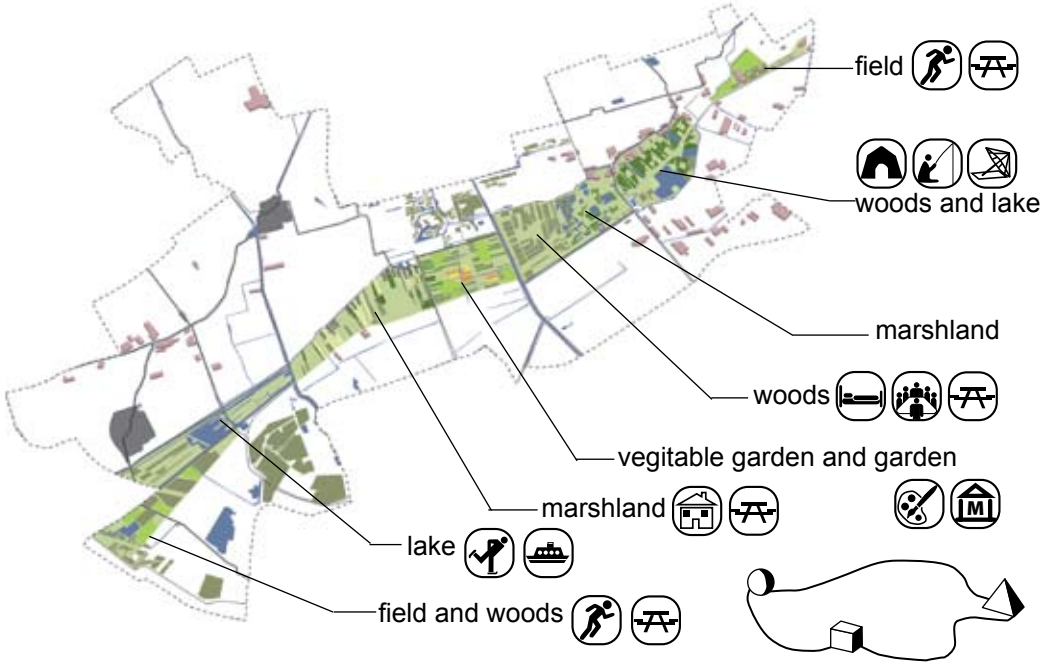
recreational activity

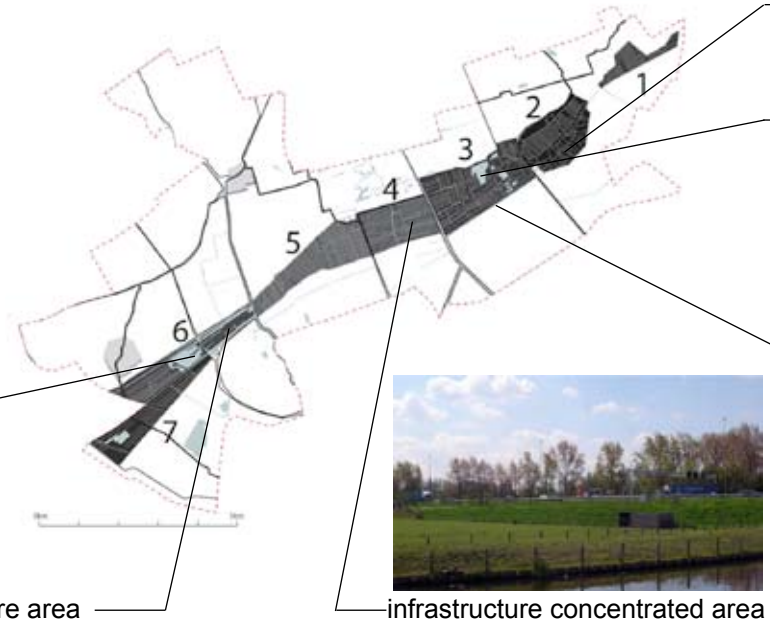
picnic
champing
fishing
boat
skating
running/ marathon
beach
horse riding
bird watching





Linear park can be divided in to seven different parks by polder structure.



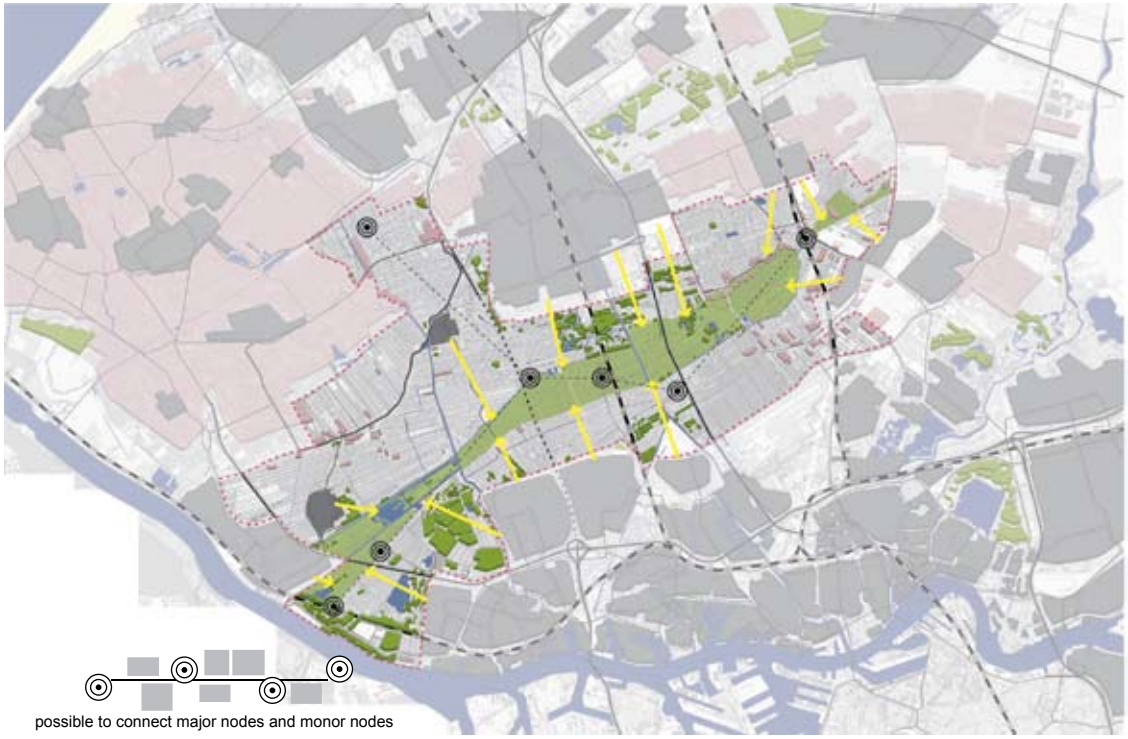


fragile nature area

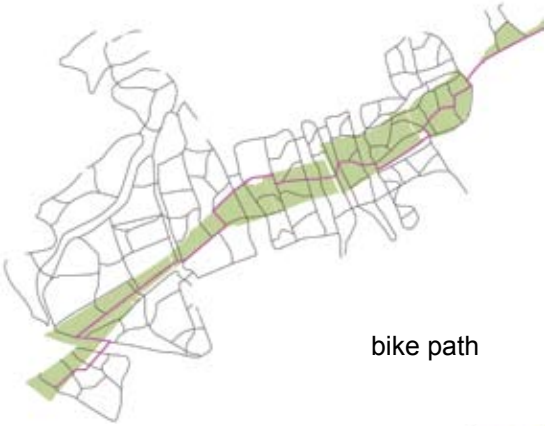
infrastructure concentrated area

lowest place

Aalsholver

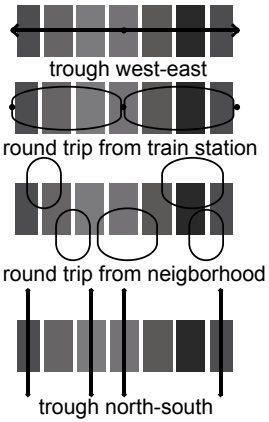


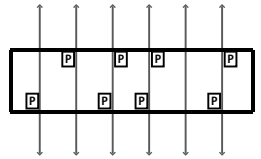
possible to connect major nodes and monor nodes

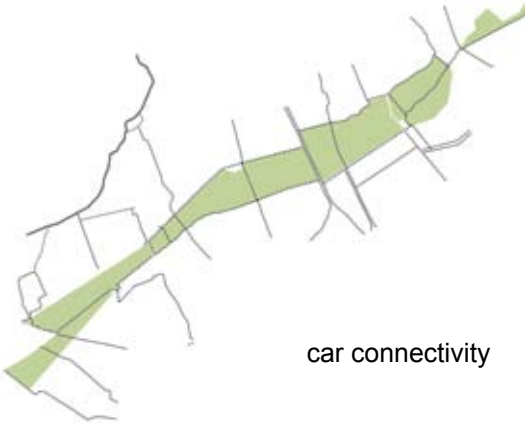


bike path

bike routing

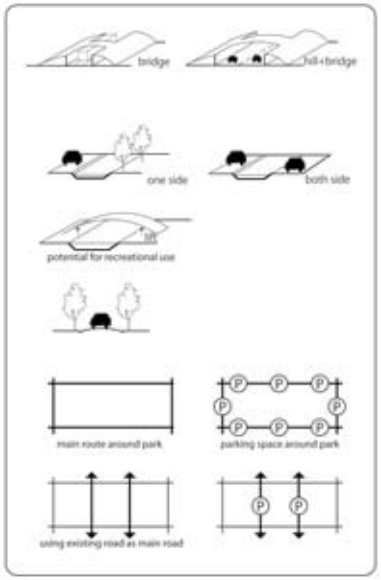


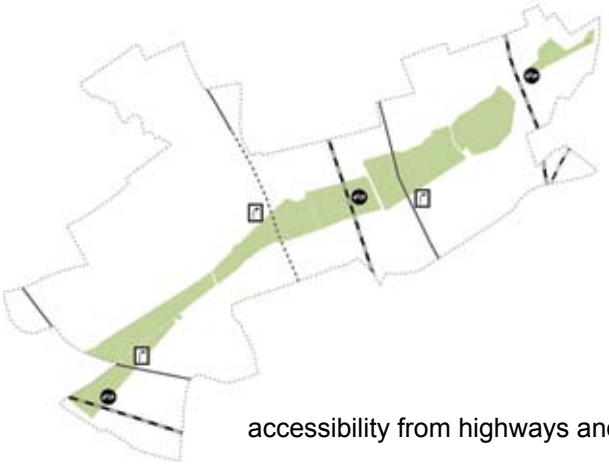




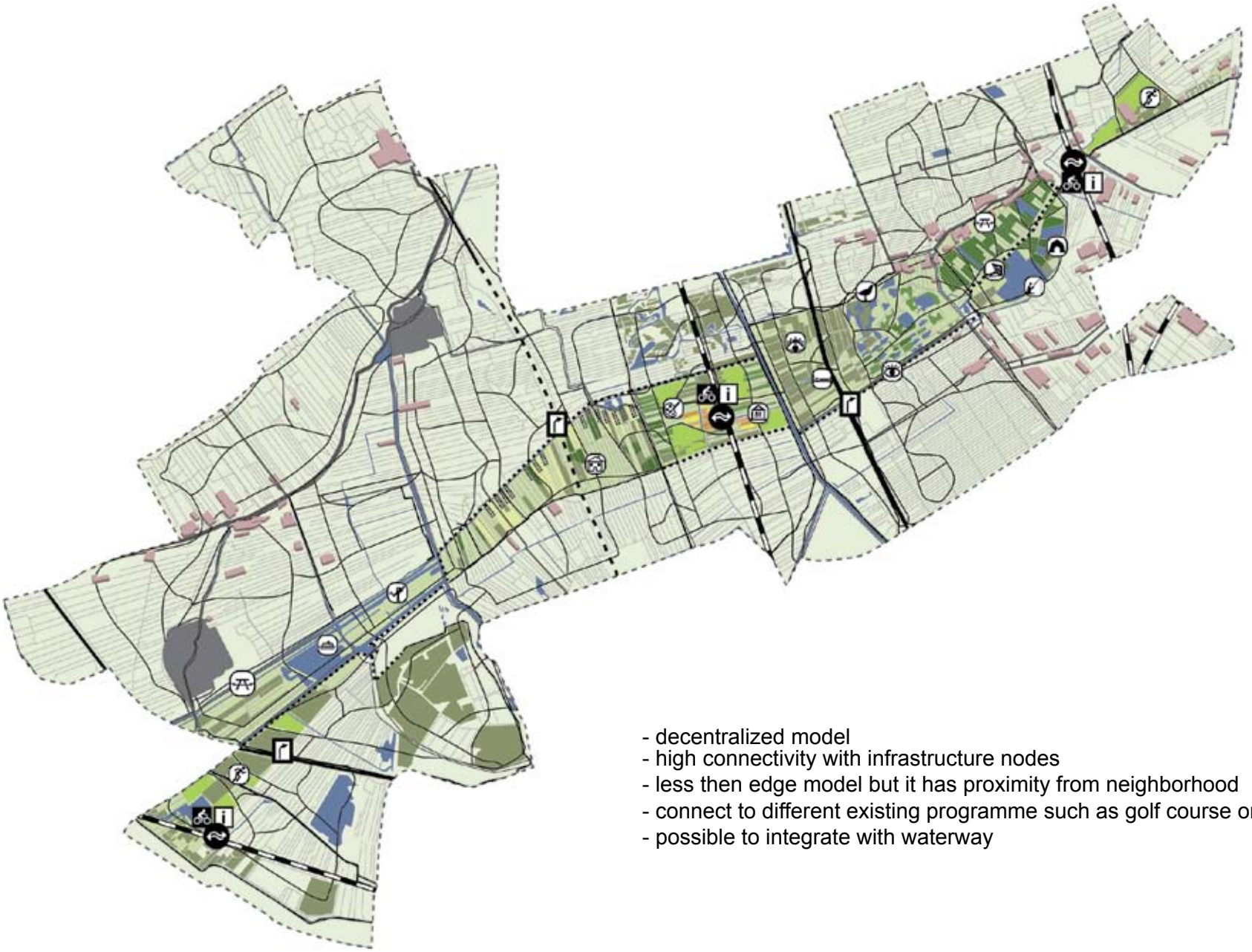
car connectivity

distance from train station

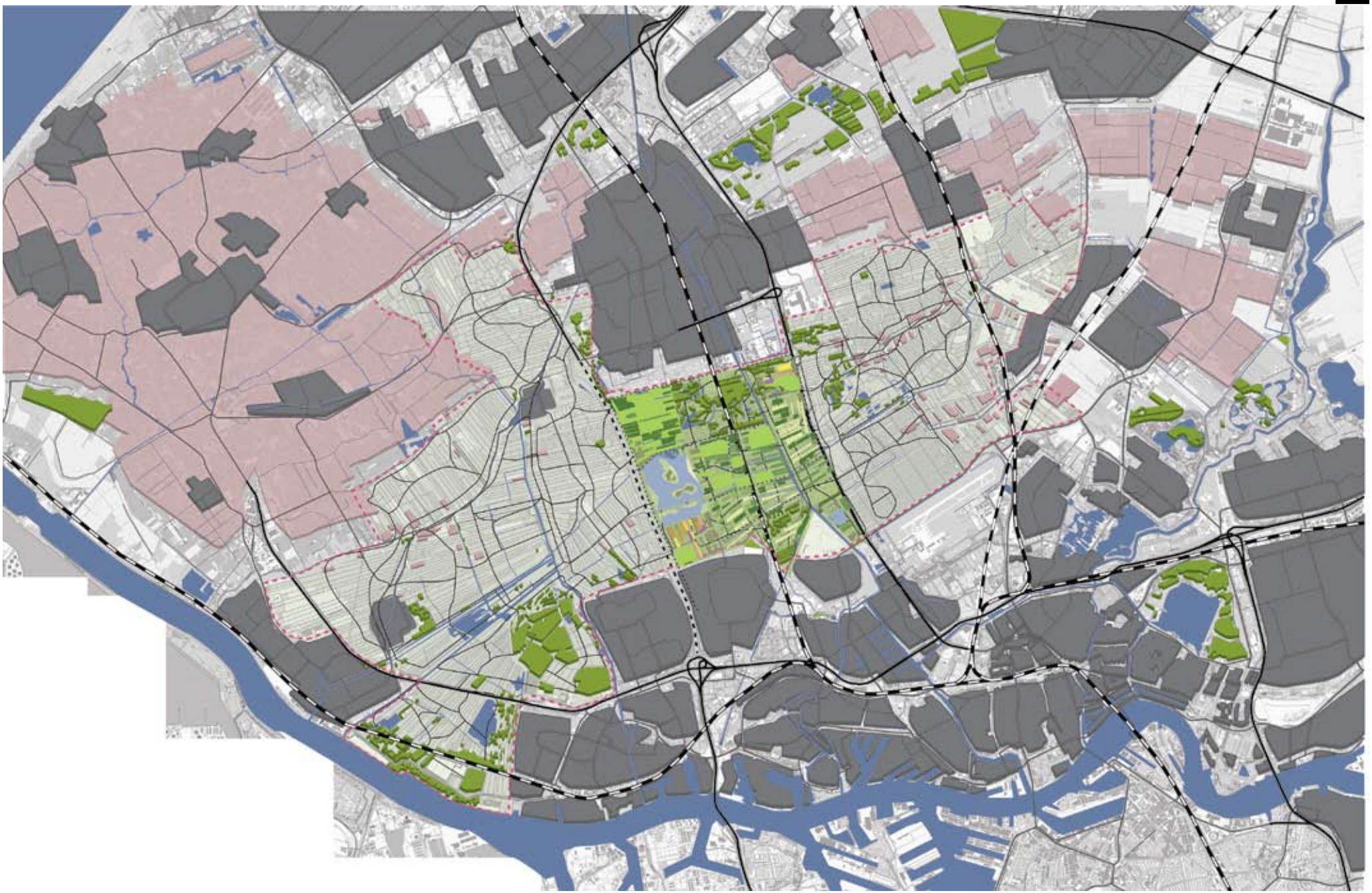




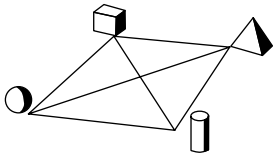
accessibility from highways and train station



- decentralized model
- high connectivity with infrastructure nodes
- less then edge model but it has proximity from neighborhood
- connect to different existing programme such as golf course or woods
- possible to integrate with waterway



Park can be divided into 10 parks by polder structure, road and urban grid.

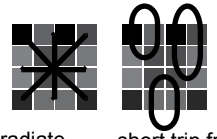


bike path

bike routing

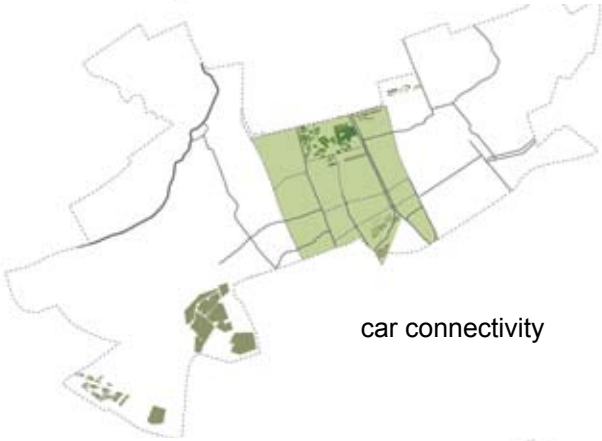
round trip

trough north-south



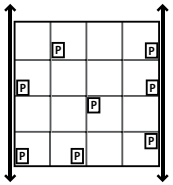
radiate from center

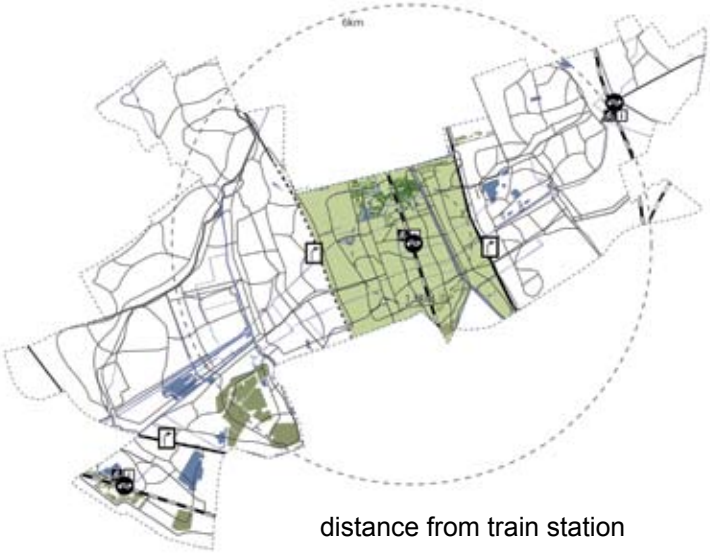
short trip from heighborhood



car connectivity

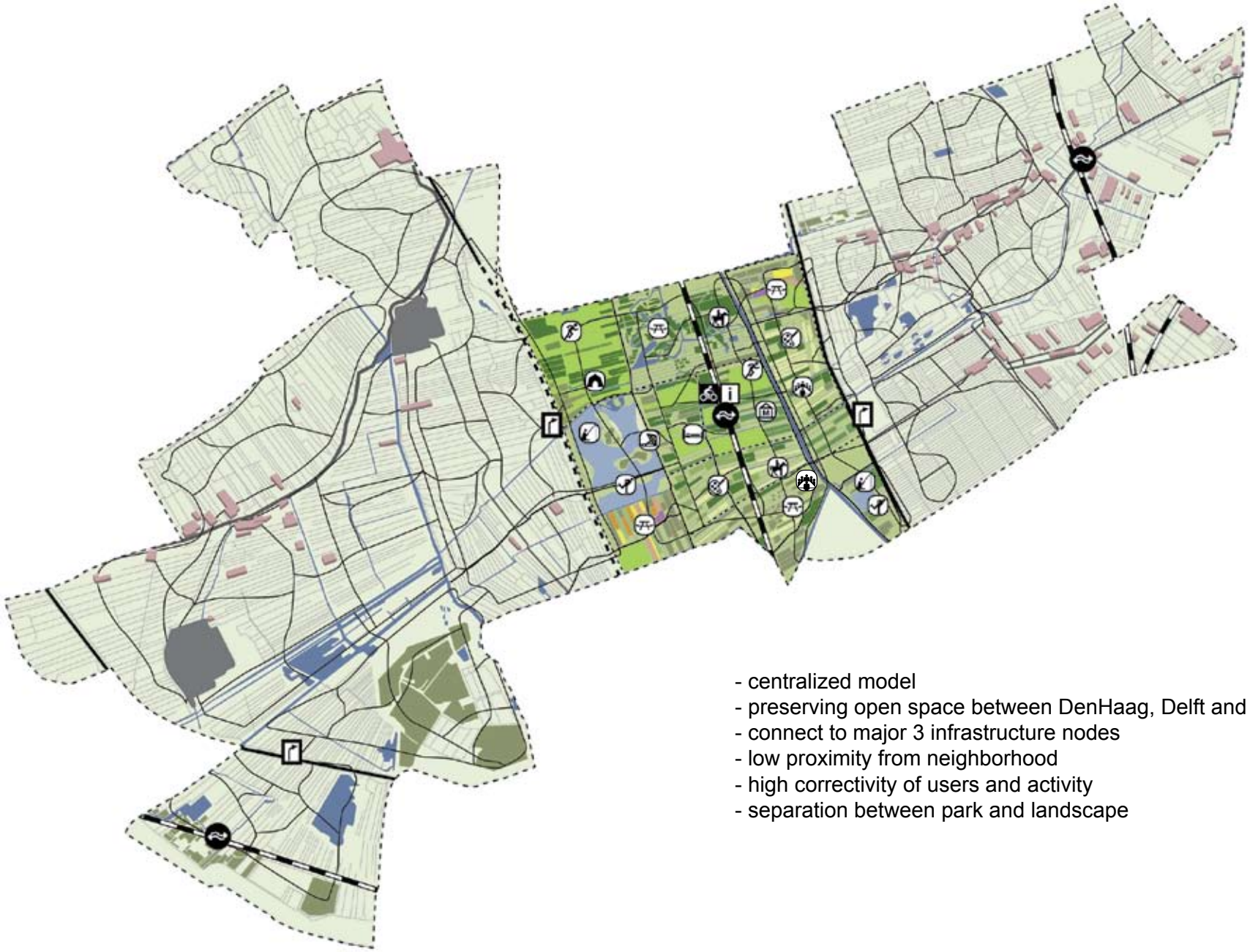
car connection



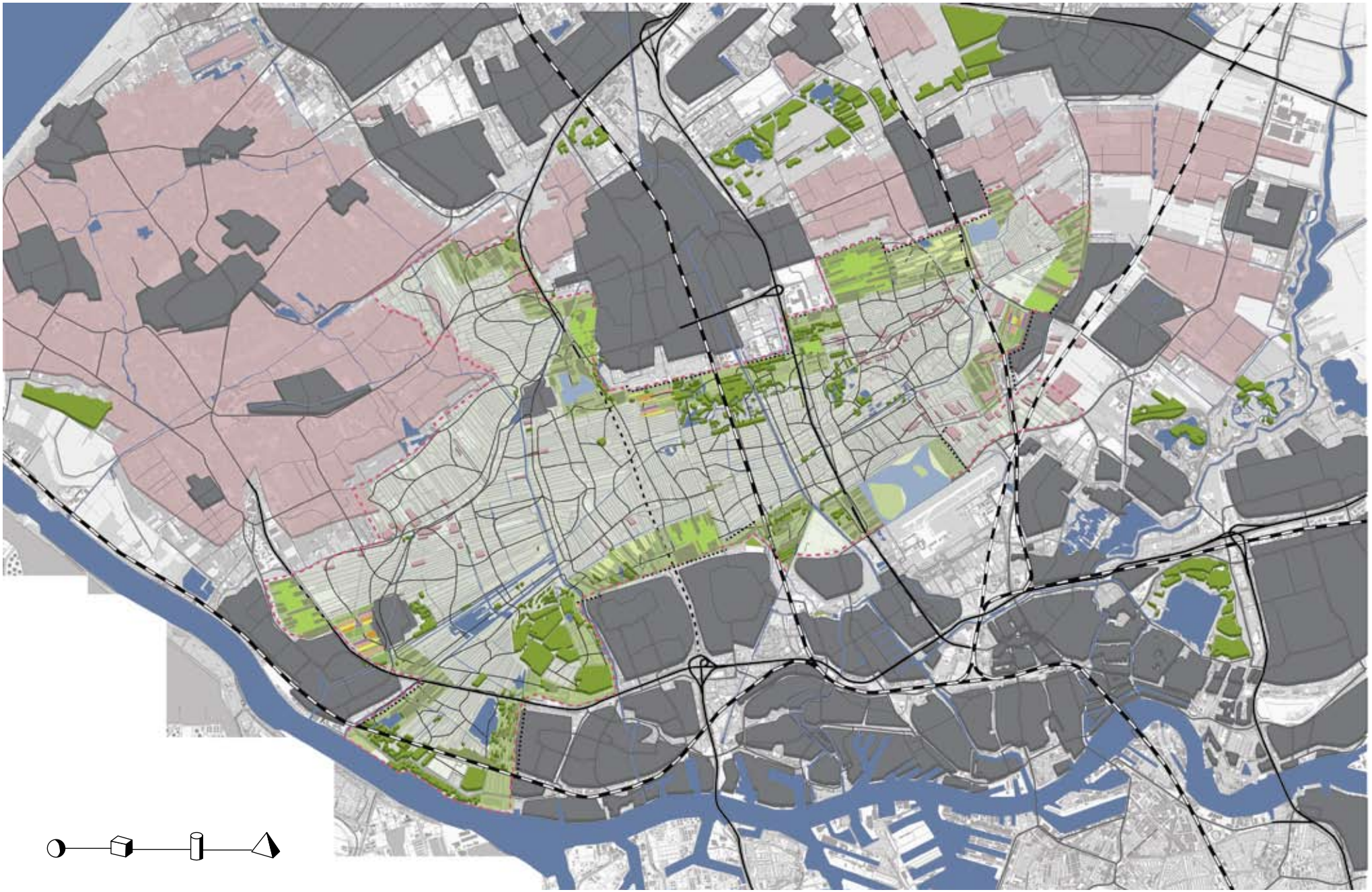


distance from train station

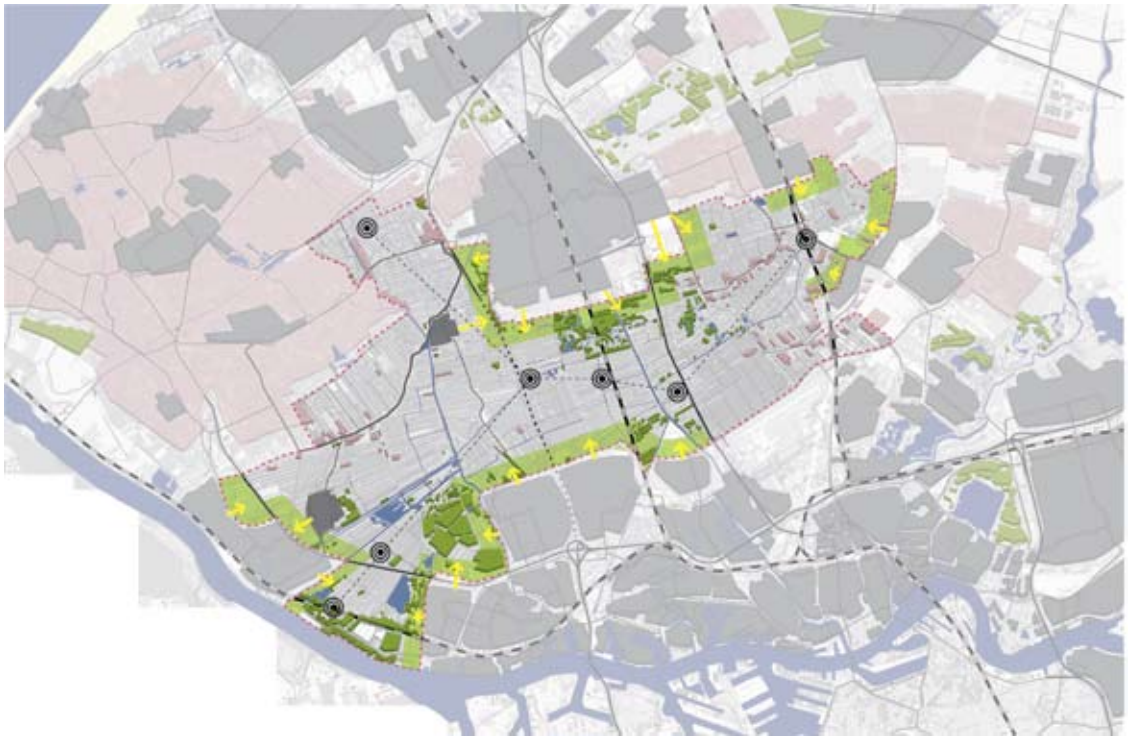
accessibility from highways and train station



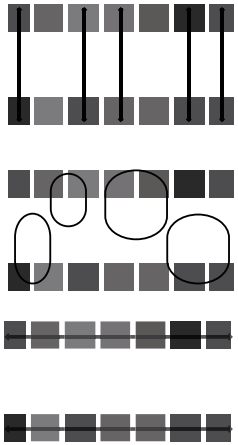
- centralized model
- preserving open space between DenHaag, Delft and Rotterdam
- connect to major 3 infrastructure nodes
- low proximity from neighborhood
- high correctivity of users and activity
- separation between park and landscape

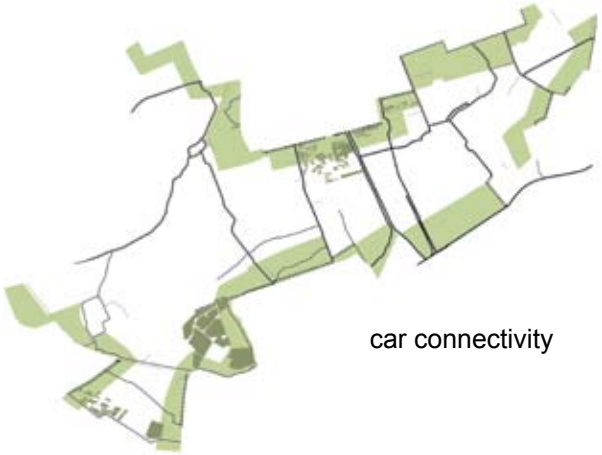



green house
residential area
industrial area
air port
woods and field
lake
marshland and woods
small lake and bush
vegitable garden, field and woods
garden and field
woods and field
lake
woods
field
marshland
vegitable garden and field

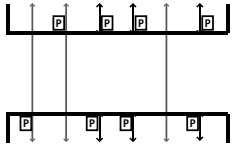


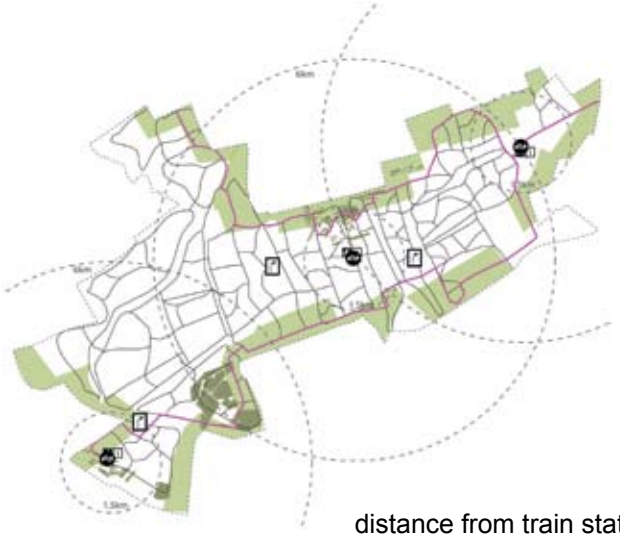
bike path





car connectivity





distance from train station

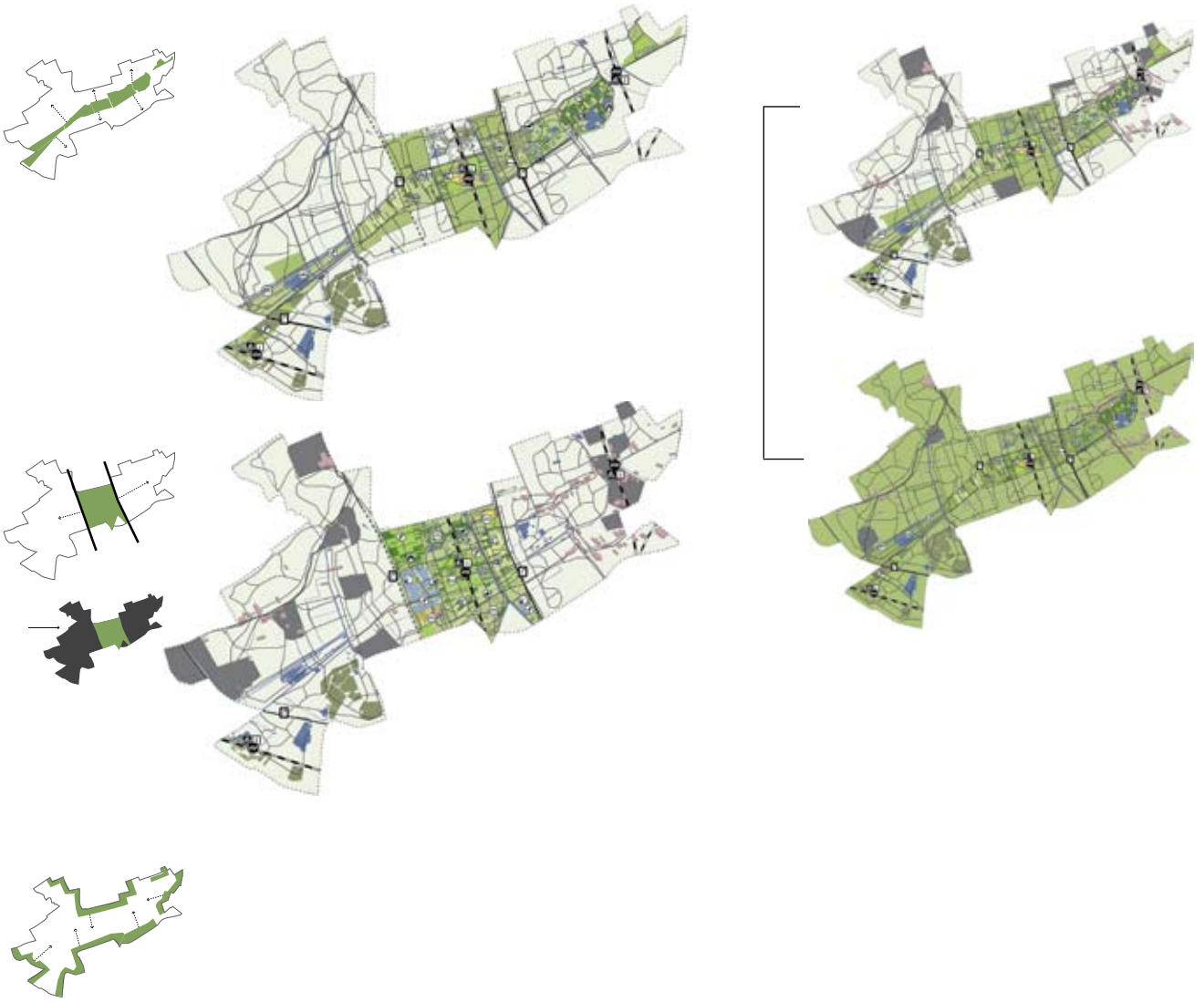
accessibility from highways and train station

- decentralized model
- high proximity from neigborhood
- no connection to infrastructure nodes from park, from landscape
- no corrective between metropolitan users and neighborhood users
- difficult to have corrective activity

Linear Park

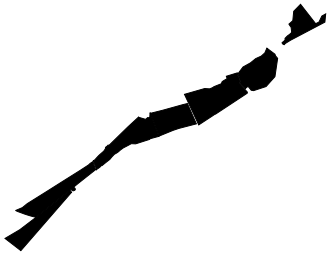
Middle Park

Edge Park



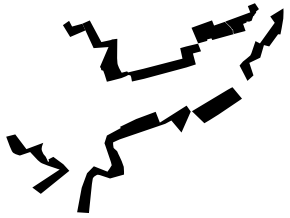
Evaluation of three models

		Linear Park	Middle Park	Edge Park
Connectedness / accessibility	mobility-car (highway)	connect to 3 highway exits	connect to 2 highway exits	not connect to highway exit
	public transportation	connect to 3 train station	connect to 2 train station	not connect to train staion
Proximity / nearness	Bike / Pedestrian	From train station, park is within 5km. It is possible to access by bike.	From train station, whole park is with in 2km. Also part of park is cconnect to urban fabric.	Almost whole park is connected to urban fabric.
Coheision / separation	Program correctivity	Program and activity are spread in 20km. Partly possible to make relation betwee program.	All program and activity are concentrate with in 2km radias	Program and activity are spread edge of Delfland. Dofficult to make relation between programmes.
	Relation with landscape or agriculture area	No clear boundary.It is easy to be integrated such as by bike path.	Clearly separated by 2 highways.	No clear boundary. It is easy to be integrated such as by bike path.
Diversity	Using existing landscape for green typology	Possible to use polder structure and, water system for park structure. Park is also combining protected nature area.	Possible to use some of existing woods area as a part of park.	Possible to use existing woods area as part of park.
	Users	People from major cities in southwing by using highway or public transportation. Also neighnorhood inhabitants can be expected.	People from major cities in southwing by using highway or public transportation. Also neighnorhood inhabitants can be expected especially place where park is connected.	Neighnorhood inhabitants can be main user that can expect for park.
Flexibility	Time phasing	Park is constructed by series of 7 parks which is devided by polder structure. It can be extend toward agriculture area by scale of small parks.	Highway makes difficult to extend park toward west and east. Therefore, There is possibility that urban extention will take place of west and east of Delfland.	Park has possibility to extend toward middle of Delfland where agriculture take place.



-green corridor
-nature area
-polder structure
-large scale

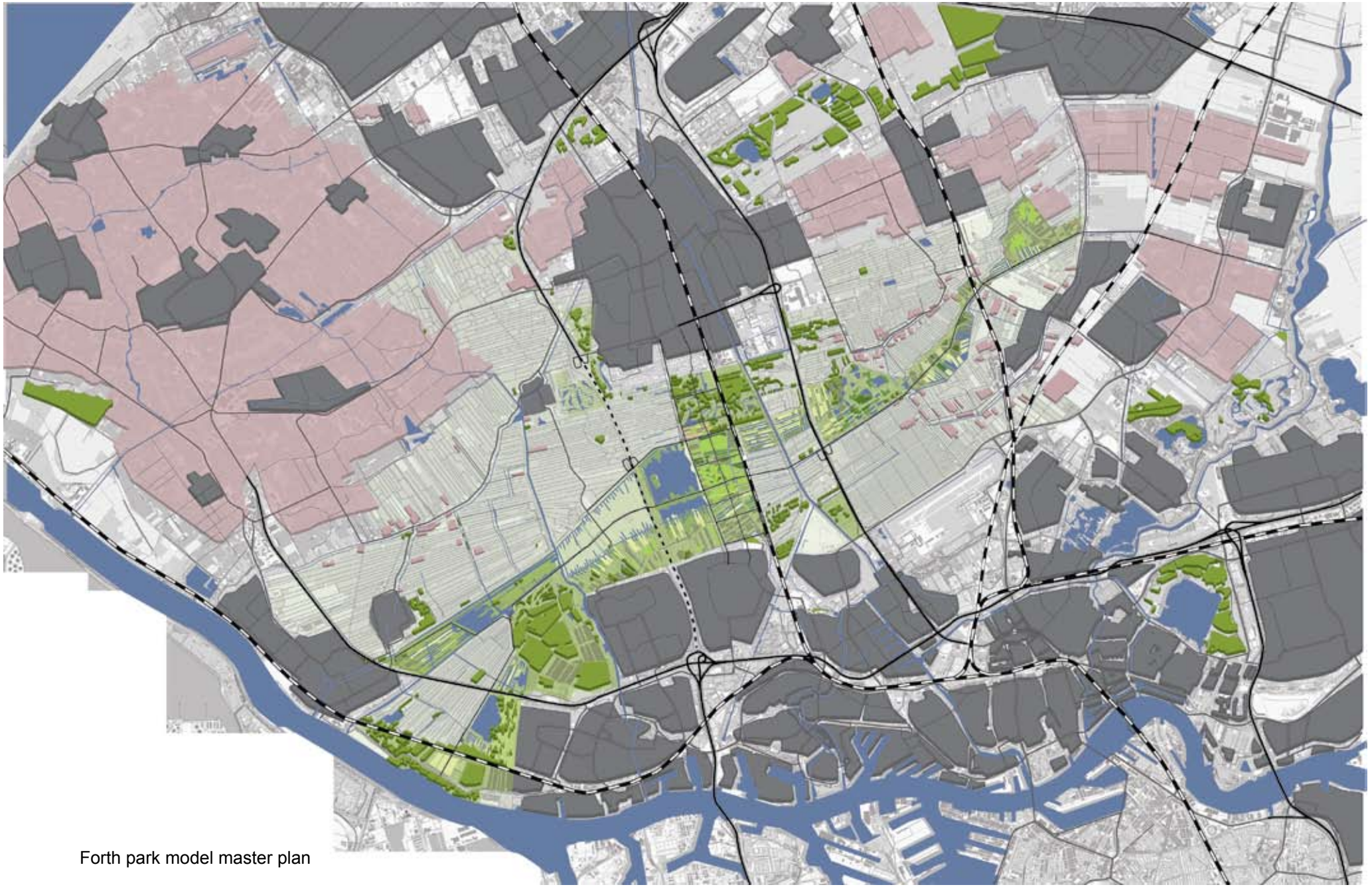
-urban block
-centrarity
-densed program
-recreation
-connectivity



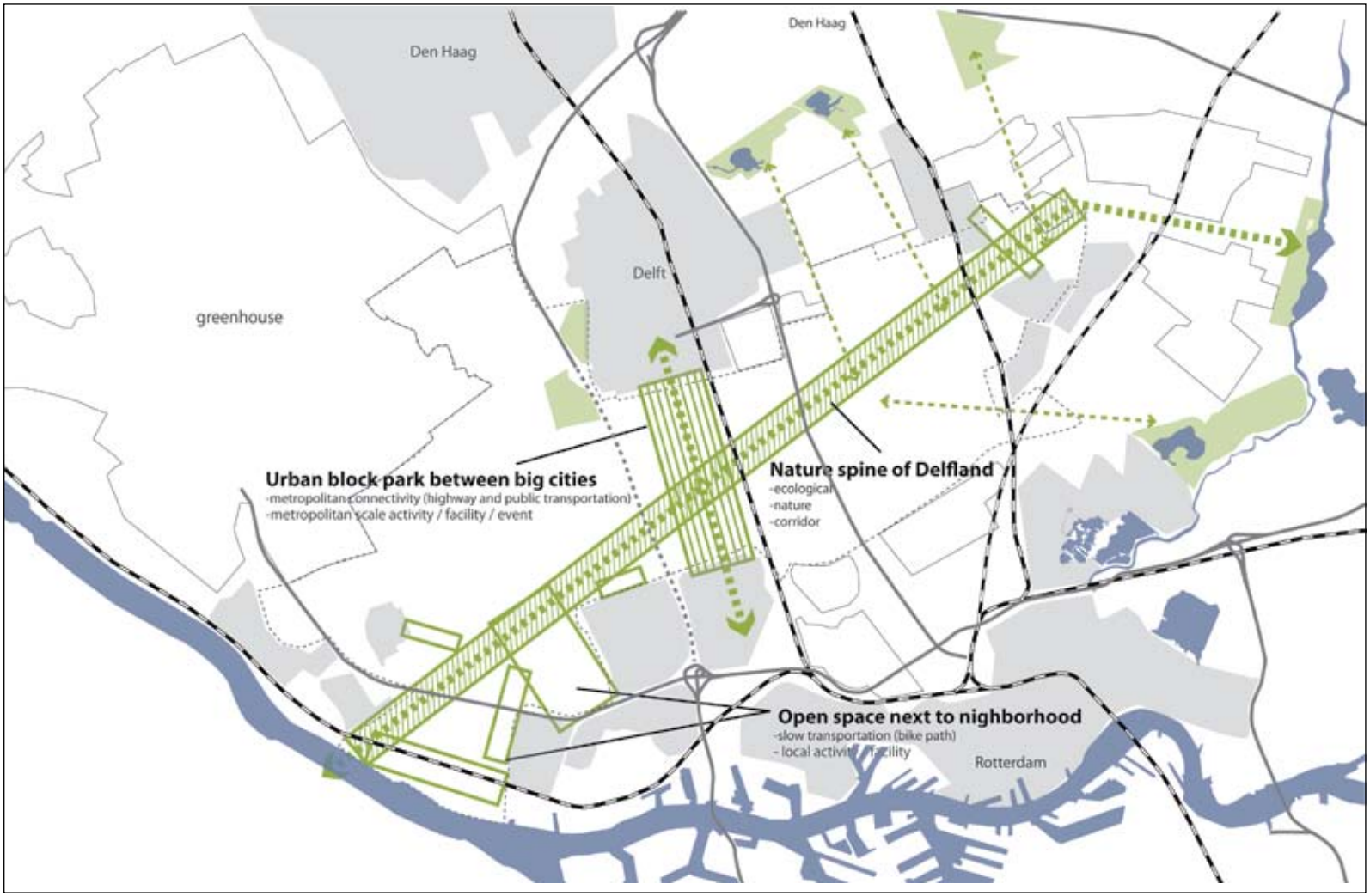
-proximity
-neighborhood park
-local use

?

Strategy- new park model



Forth park model master plan



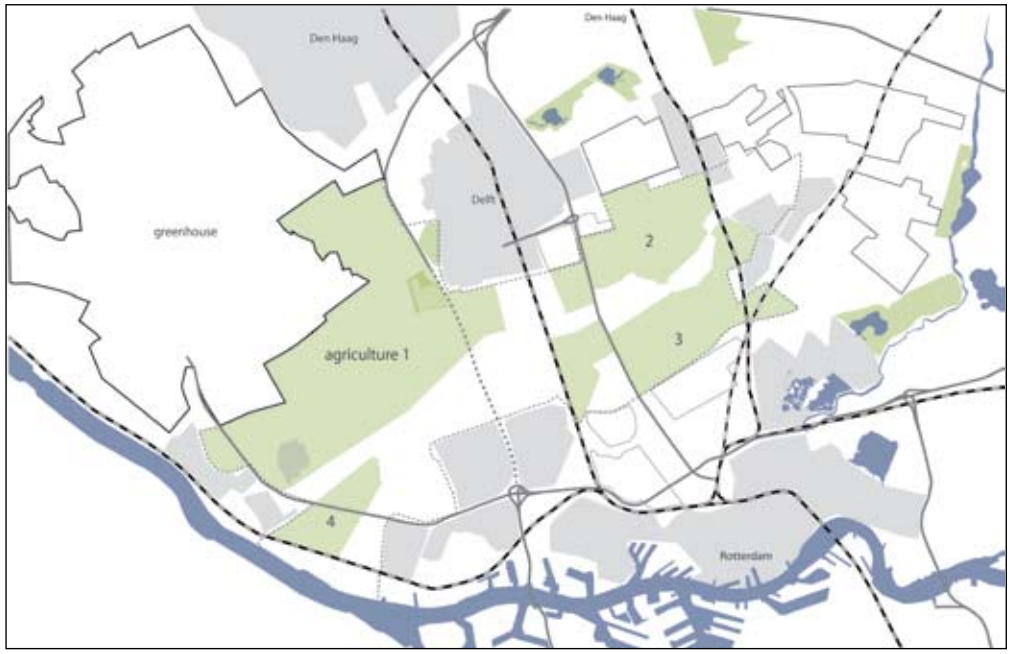
Forth park model diagram

Three-model combination diagram

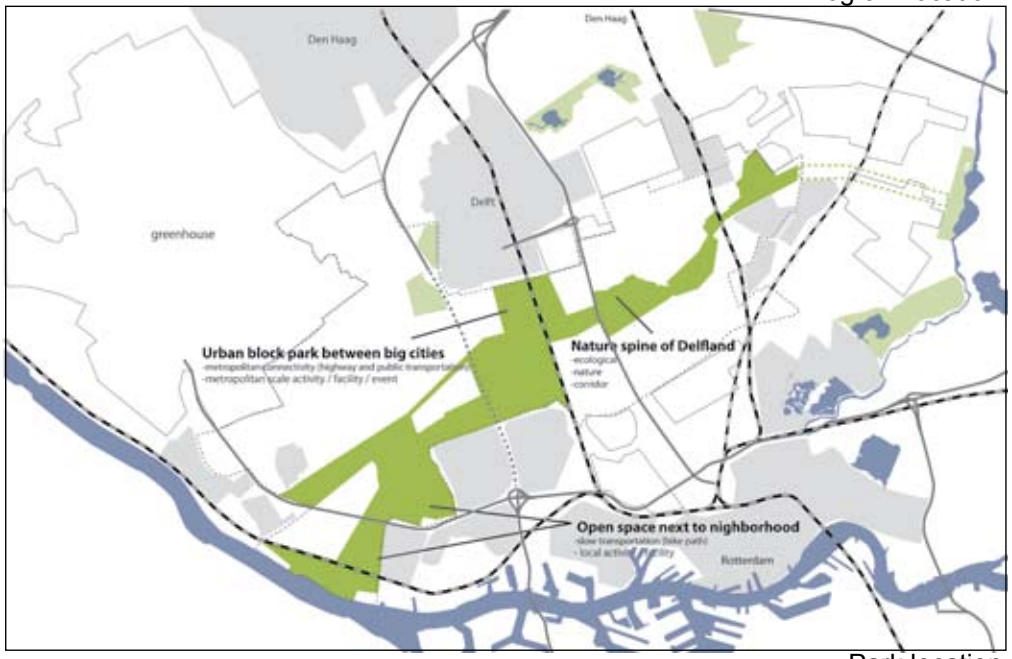
Forth model for Delfland is combination of linear park, Middle Park and Edge Park. It contains strength and opportunities from each three models. Linear Park is located as green corridor or ecological that has possibility to connect to other green space in future. Middle park is occupying space in between Delft and Rotterdam based on urban block mainly for metropolitan user. And Edge Park is for neighborhood user. Some part of new model is integrated these three meanings. Moreover talk about green typology in park, linear area will be marshland or wetland which can be natural animal or bird can live, middle area will be mainly urban park and lake, and neighborhood area will be woods and neighborhood park will be applied.

Agriculture is going to remain in four areas. Especially agriculture area 1 (north-west area) is just next to big green house area. Combining with agriculture area, huge food producing space will be remaining for metropolitan scale.

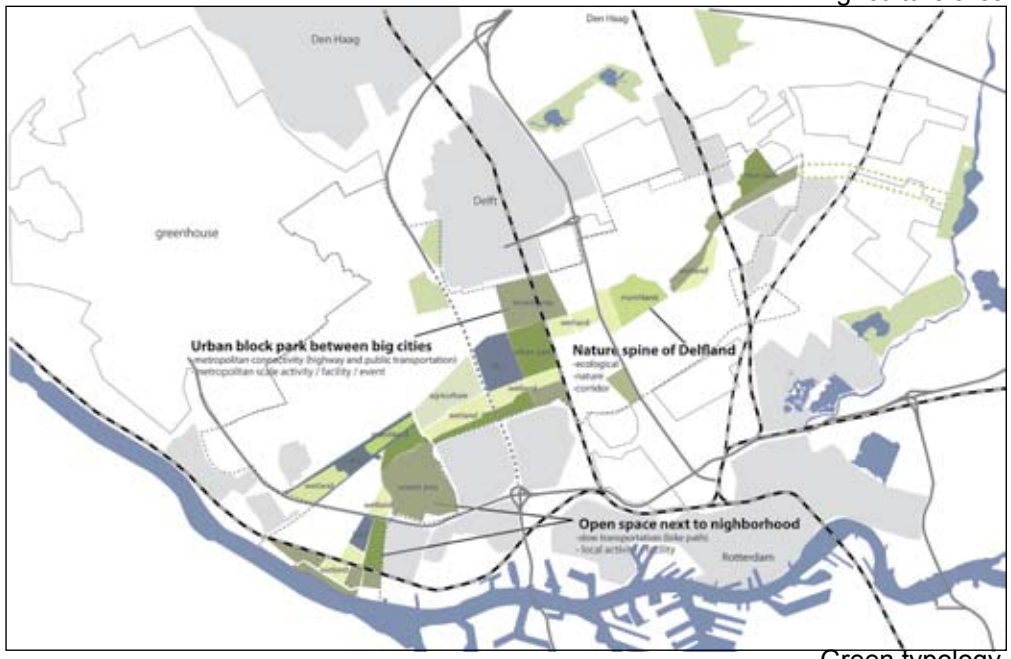
Program location



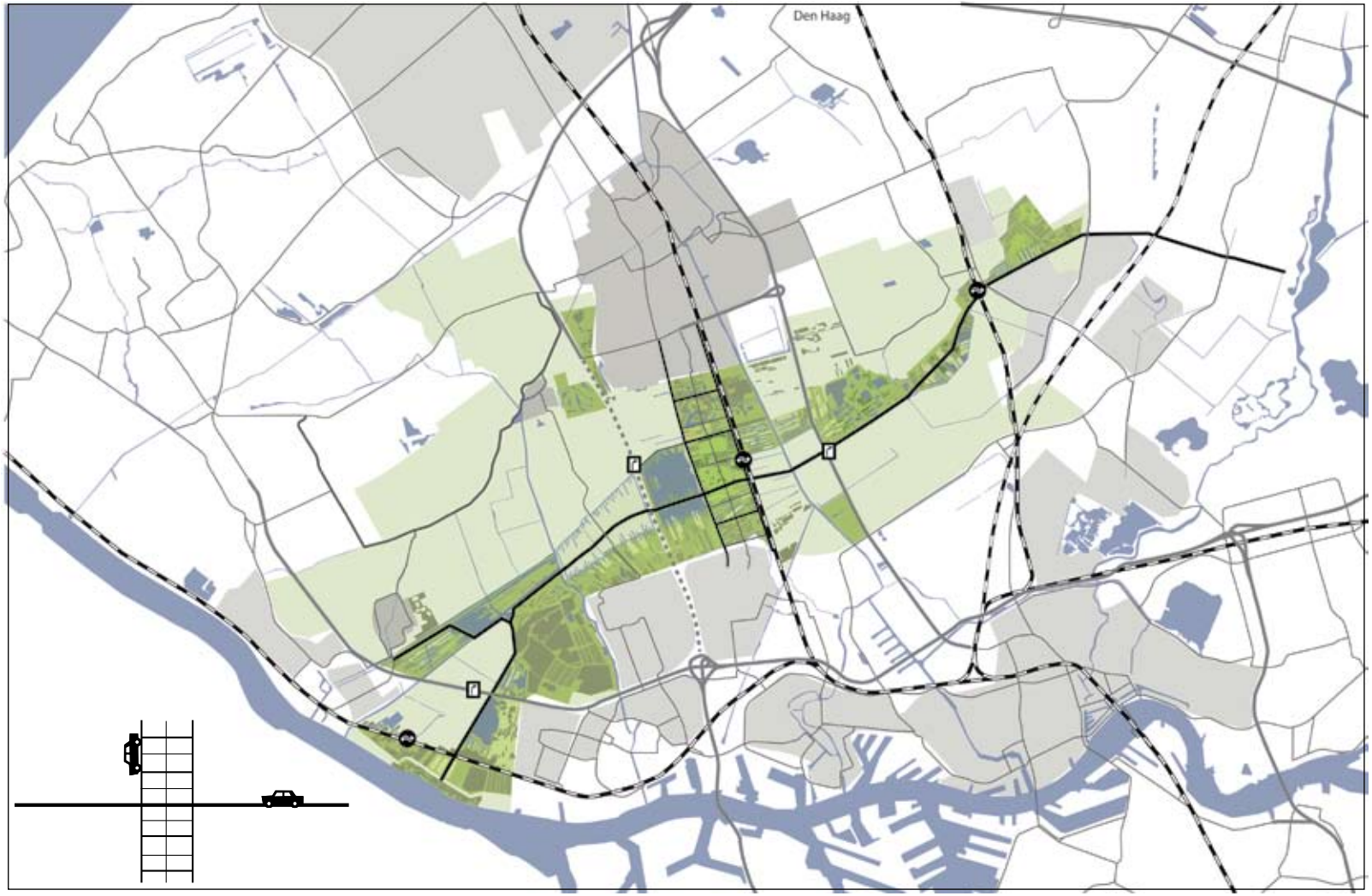
Agriculture area



Park location



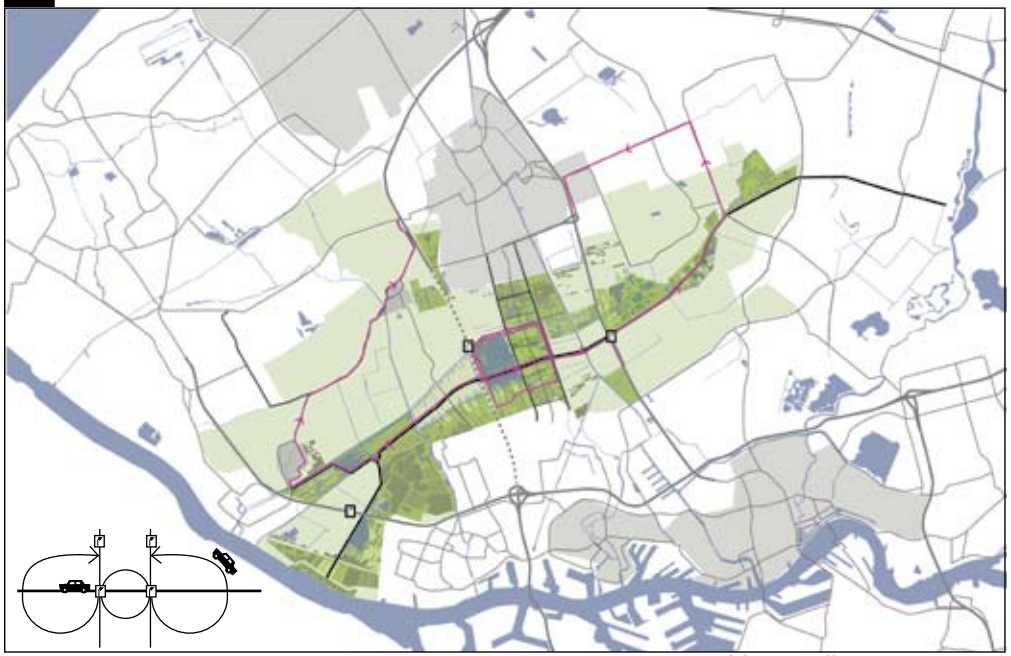
Green typology



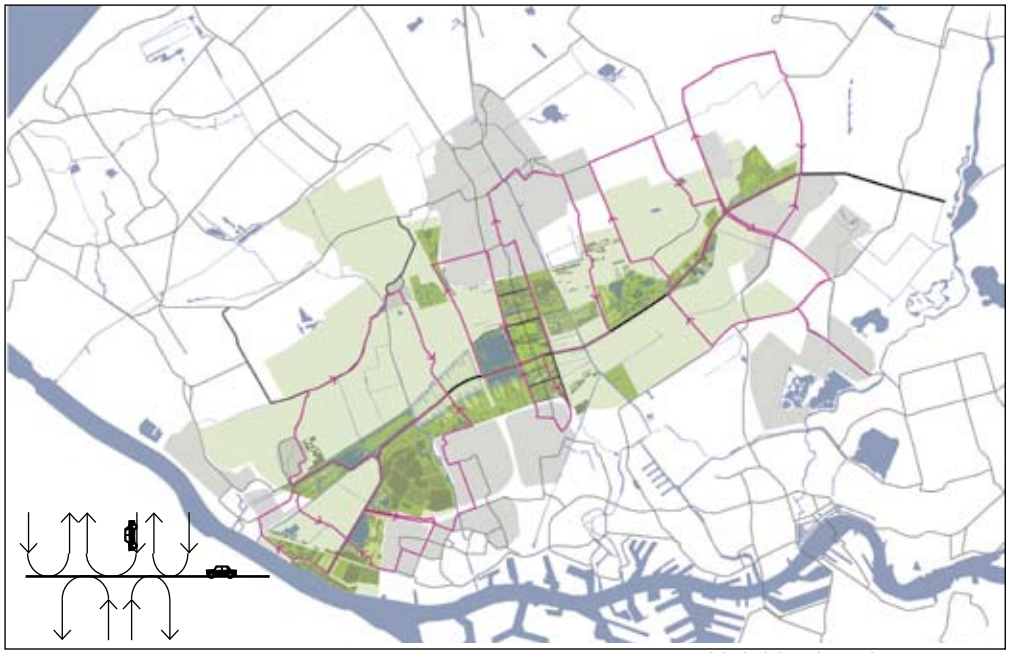
Park way and urban grid

Parkway

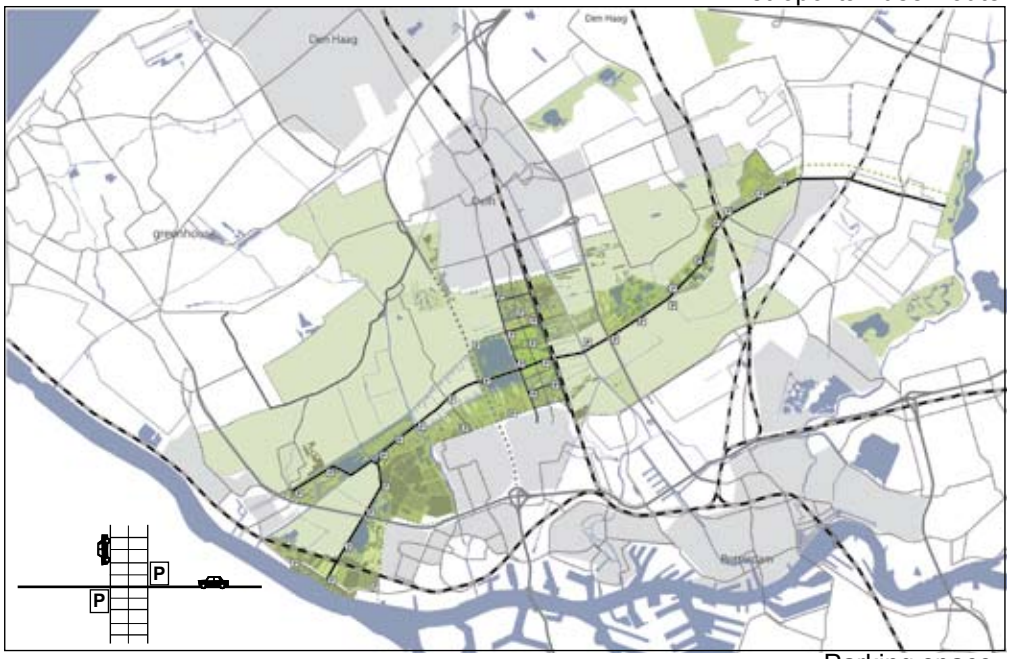
Parkway is going to run west to east of the park. It is mention before that this area is lucking of crossing connection, and also its difficult to construct because of highways, train truck and water way. Park way is going to use existing main road, dyke and make new road for some part.
Urban grid road will take place in middle part of park. Every 300-500m local road will be construct that is same as surrounding neighborhood. This makes easy to access each part of middle area park. Parking space mainly will be locate along park way and urban grid road. It will be 10-20 space small parking spaces. Talk about route, metropolitan user and neighborhood user will be different. For neighborhood user its possible just use part of park way and make short circle.
Main bike path is going to connect park and neighborhood or green space in surrounding.



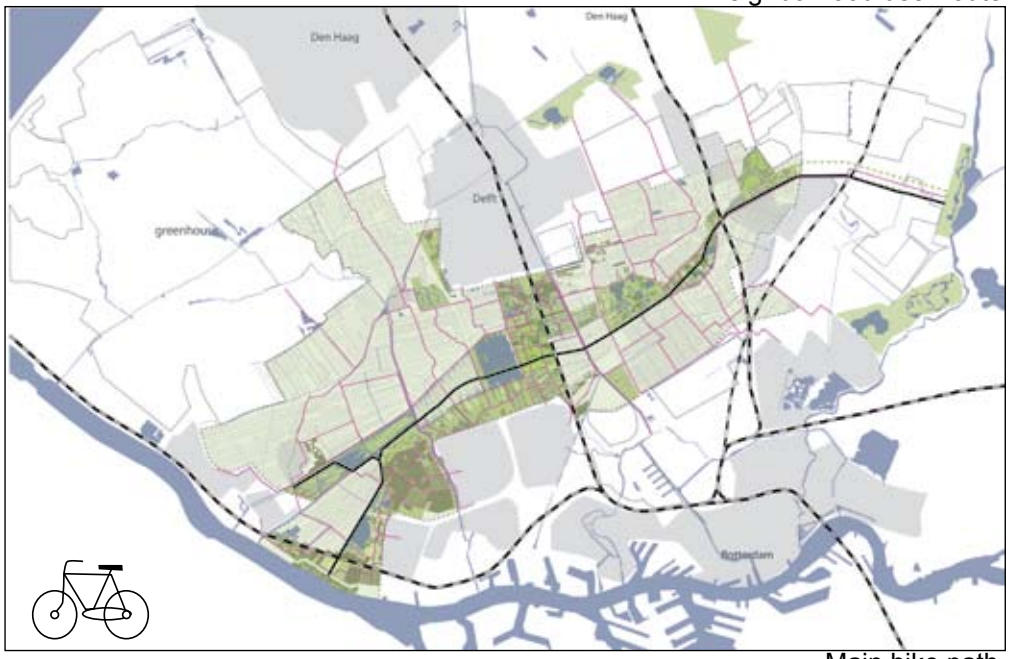
Metropolitan user route



Neighborhood user route



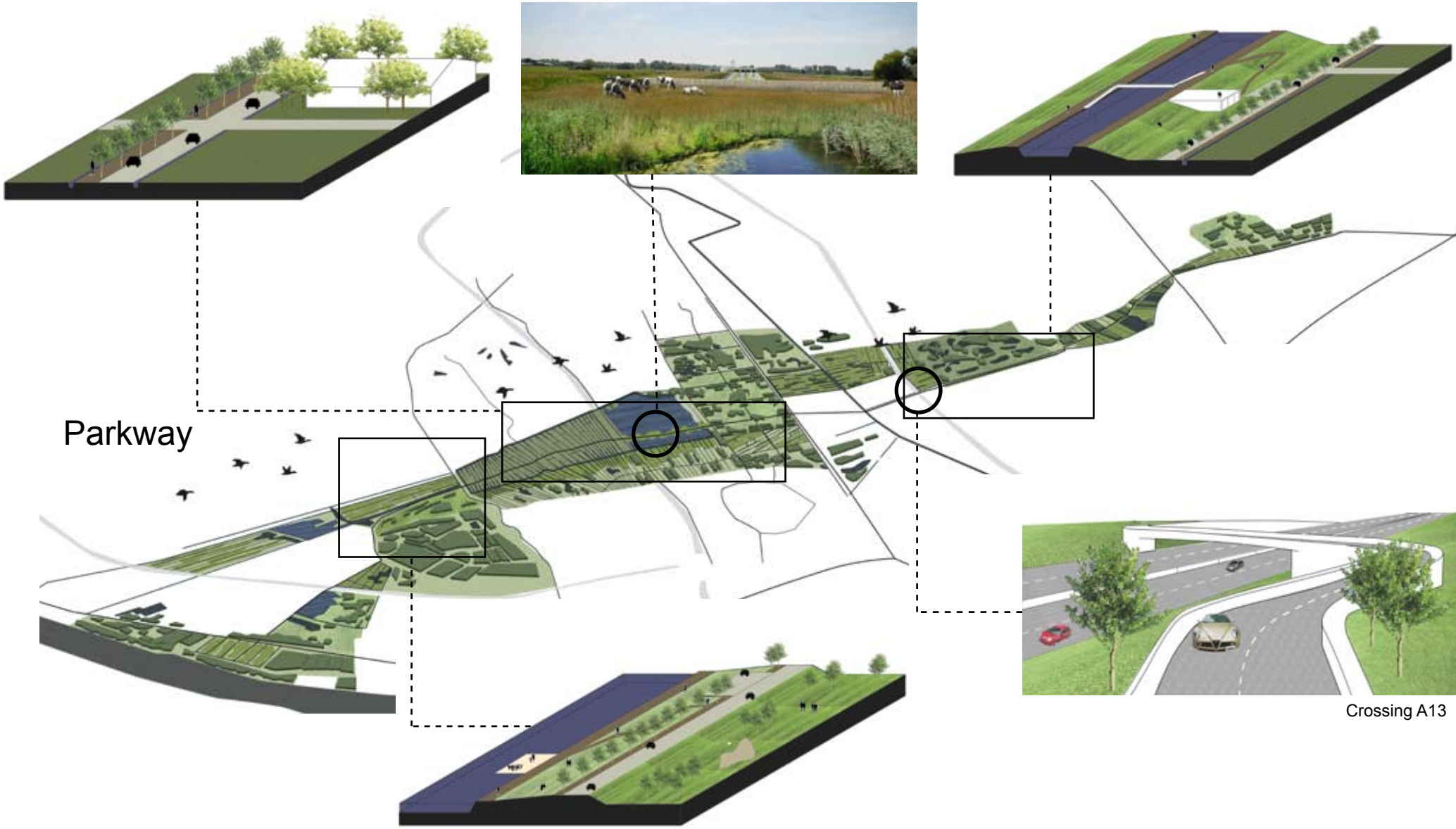
Parking space



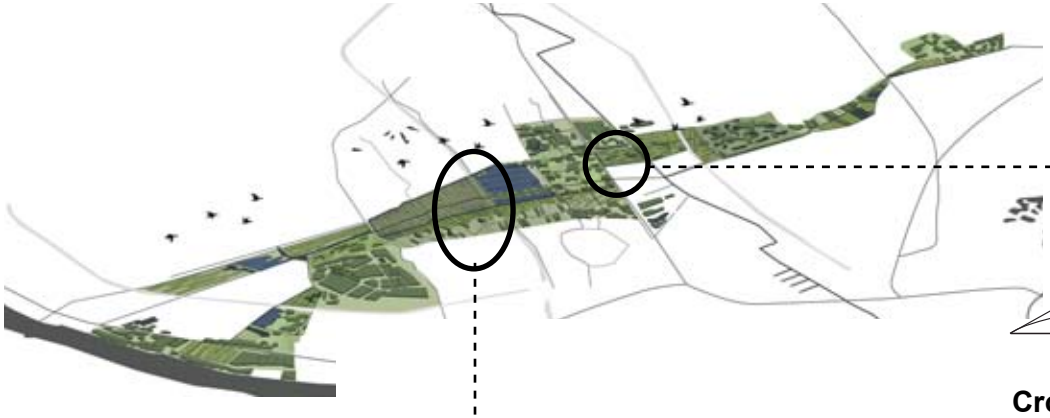
Main bike path

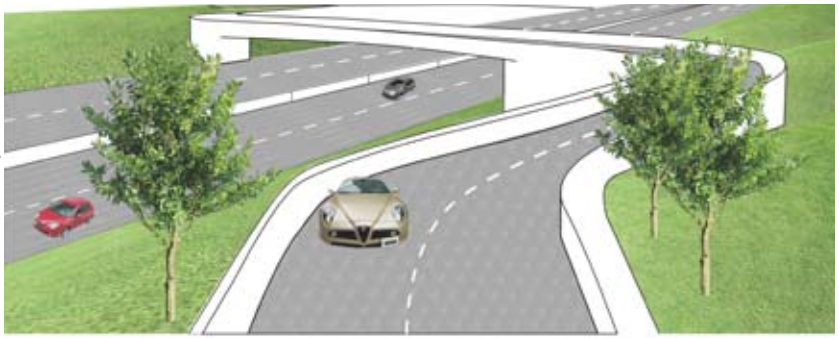
11. Design

- Parkway
- Middle Park



Crossing A13



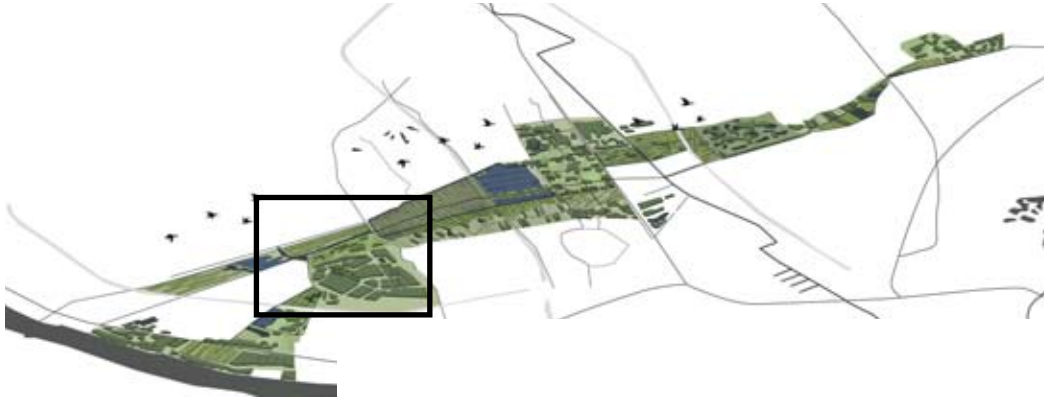


Crossing A13

Crossing highway

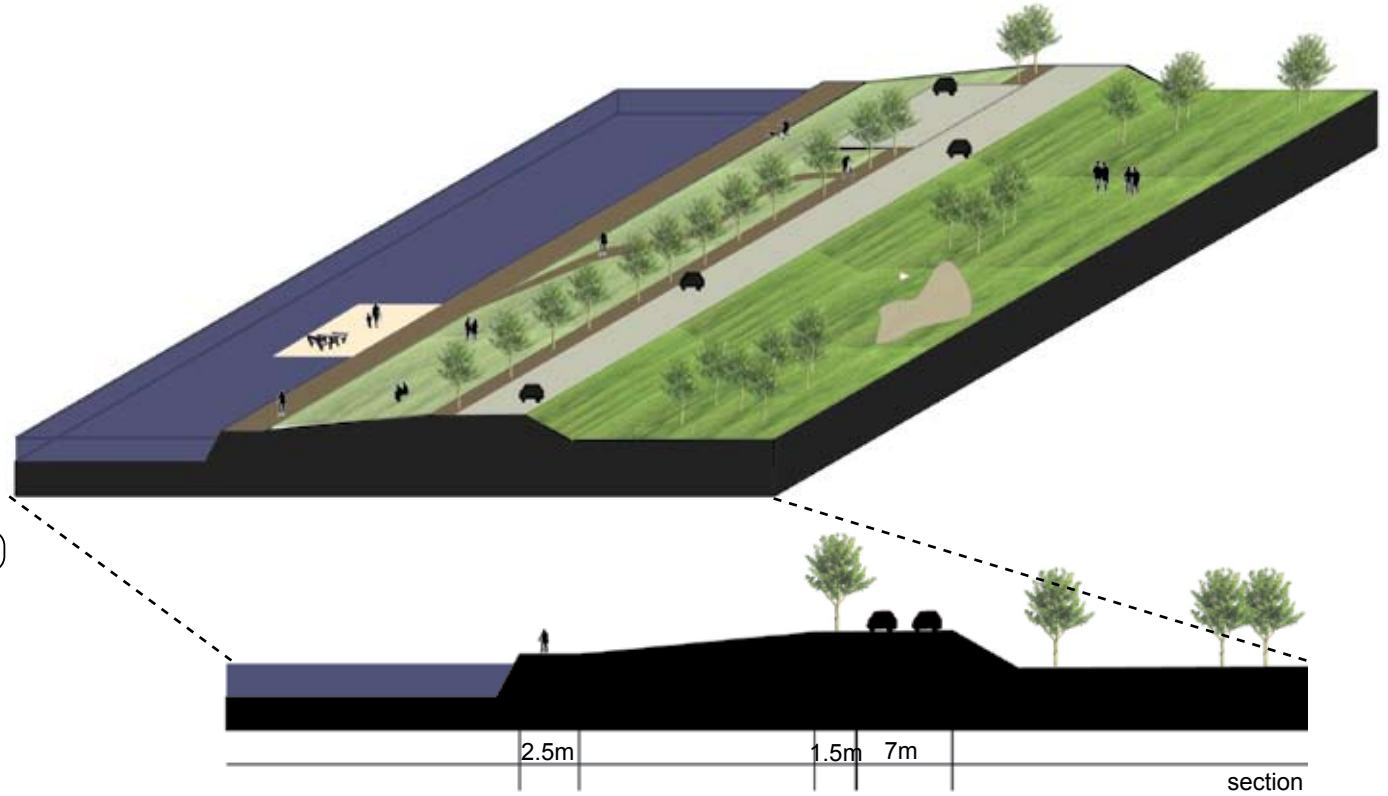
There will be three highways, which need to cross in the park. Especially A13 and A4 is passing middle of the park. The point park way cross A13, along road will be green hill and bridge will be over. At this point also junction will be combined. People can see green hill for icon of the park.
According to government plan for A4, highway will be constructed under ground where park locate. Also in agriculture area, noise protection will be made that it will be less influence by highway.

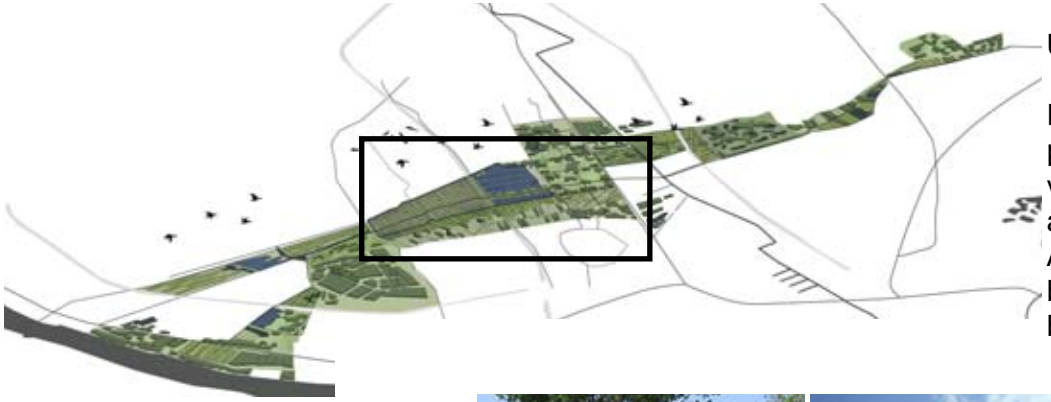
Government plan image for A4 extention



Lake | golf and woods area- expanding existing road on dyke

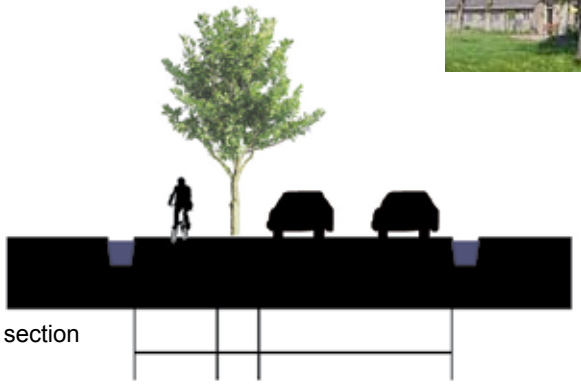
In lake area, dyke can be used for parkway. Now already small road is located but to make it two ways it need to expand. By using dyke (road is in between to different polder), it is elevated from surroundings. One side will be lake and one side will be golf course or woods area. Bike path will be locate different from car road which is along lake. Small parking space will be applied along road that people can go near the lake. All season can enjoy sailing and in winter sometimes skating is possible on the lake.



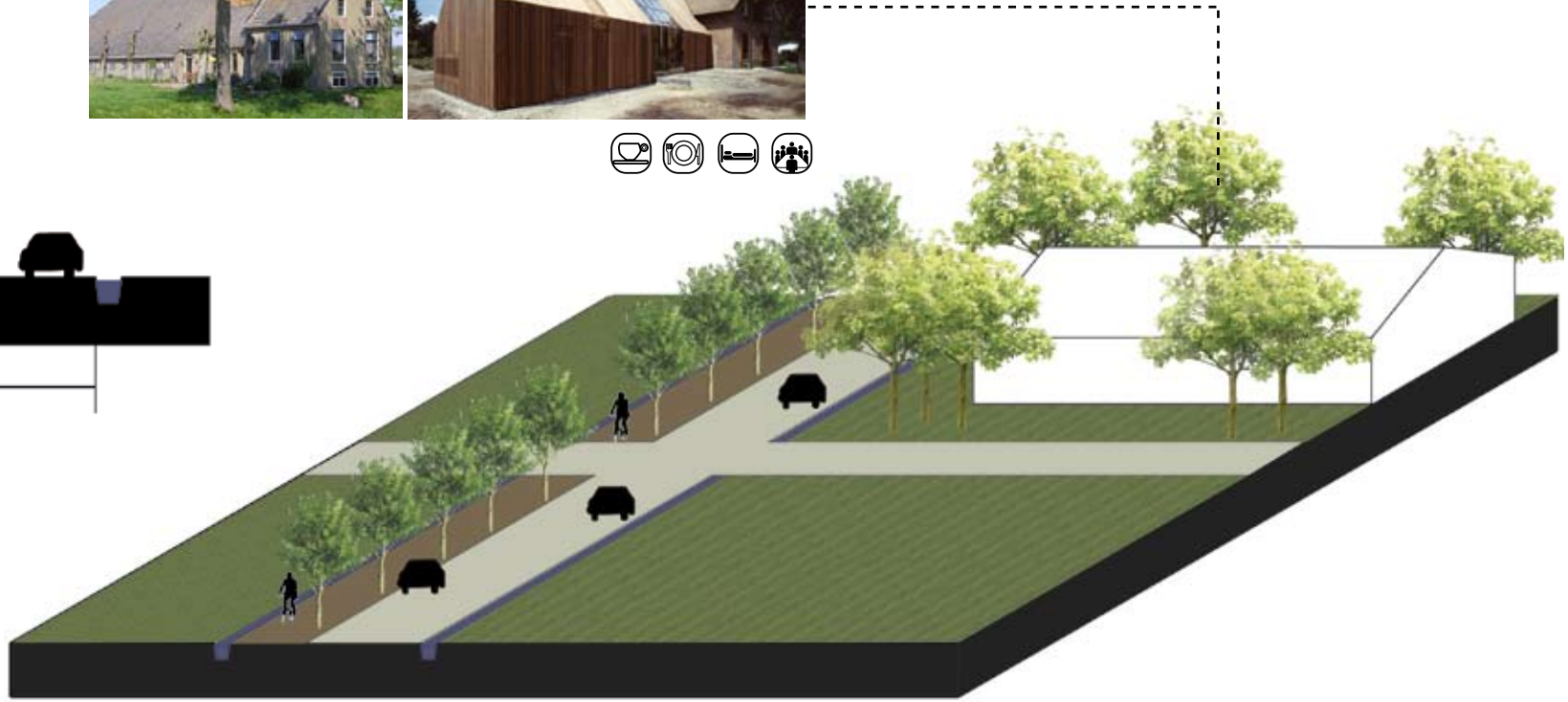


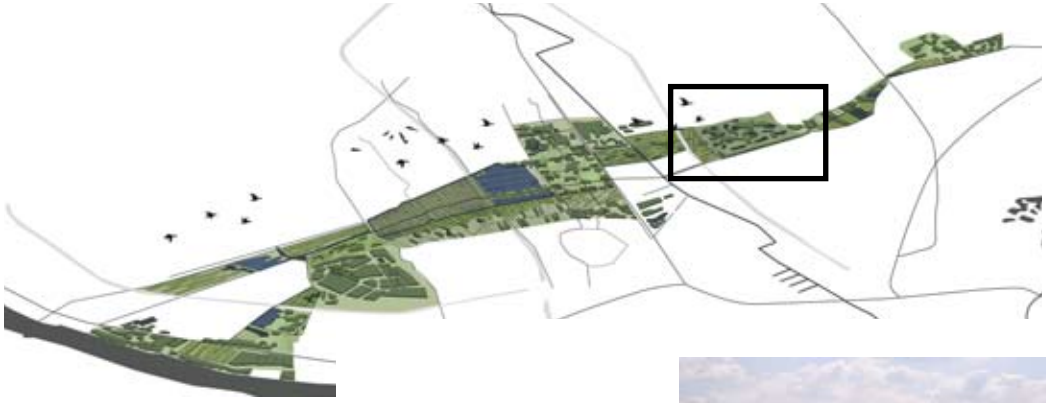
Using existing main road- agriculture zone to Middle Park

From agriculture zone to middle park, existing main road can be used for parkway. It is locating same height with surrounding polder. Road will be divided into three section, car road (7m for two ways), planting tree zone (1.5m) and bike path (2.5m).
Along this main road, farmhouses are placed. Some of these farmhouses can be transforming to restaurant, cafe or hotel. Also some new houses can be built which is same form as existing farmhouse.



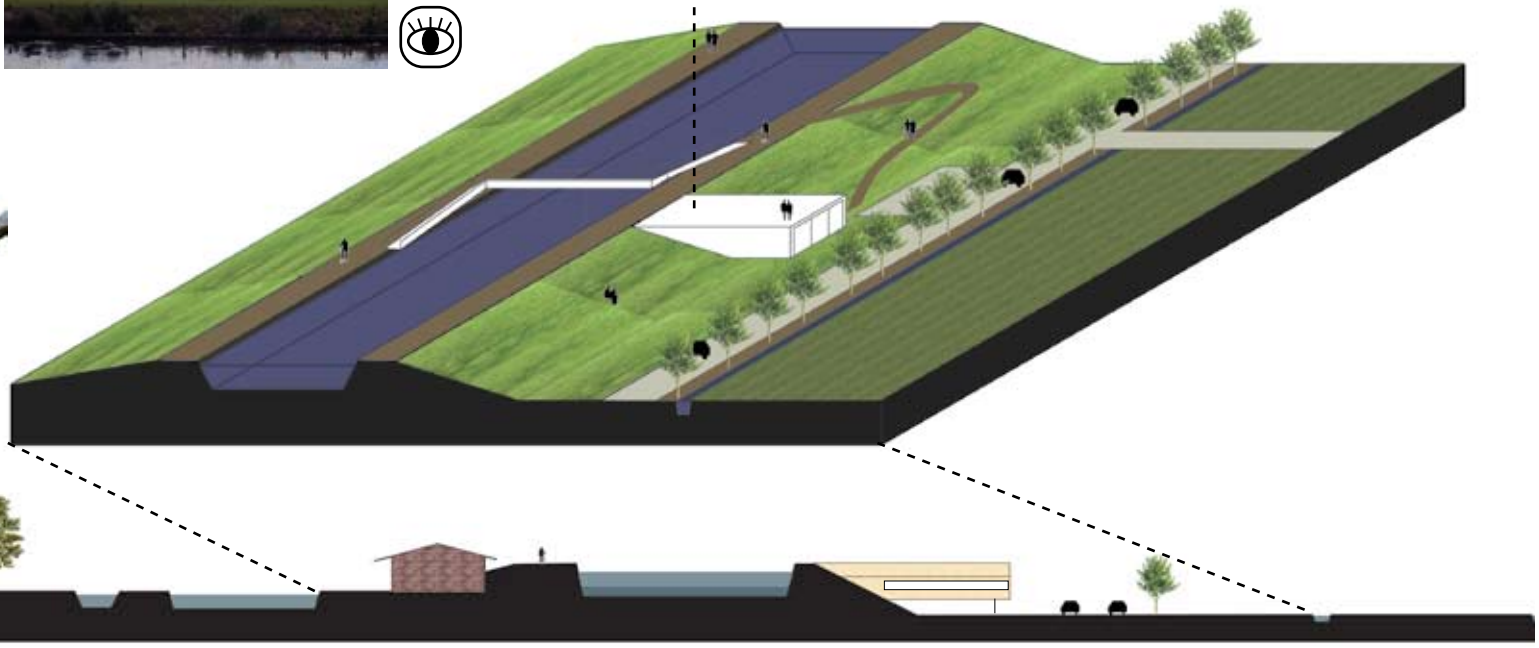
section

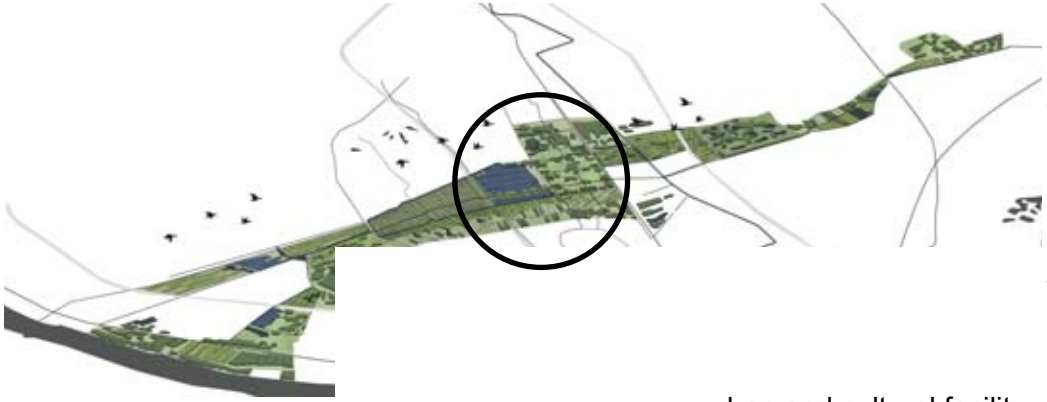




New road in natural area

In natural area, there are not road, which is crossing west to east. New road construction is needed. Now bike path is located along canal that is just next to natural area. New car road will be located next to agriculture area that is just beside dyke.
In between car road and canal, some restaurant or cafe will be planned. It can be used from both car road and bike path. On top of the roof can be used for platform to see the view of Rotterdam skyline.





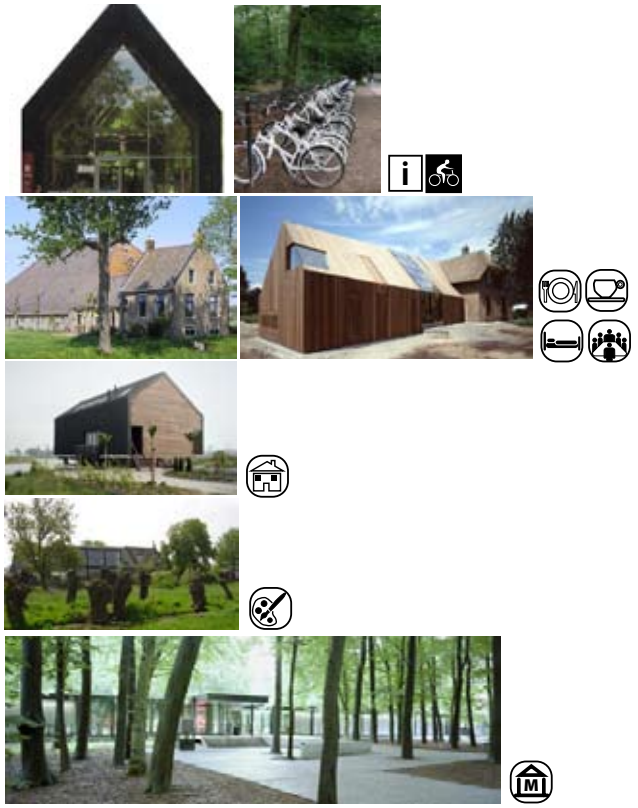
Program and activity in Middle Park

In Middle Park, station will be located and program or activity will be concentrated. With in 2km, people can go Museum Park, even space, huge lake area, wetland, vegetable garden and so one.
Middle park will be located in west side of the train truck. It is because in east side along canal, it has already main road and some historical heritage such as pump station is situated. Also bike path is well connected that people are familiar to use. East side will be remaining existing situation.

Middle Park

infrastructure node

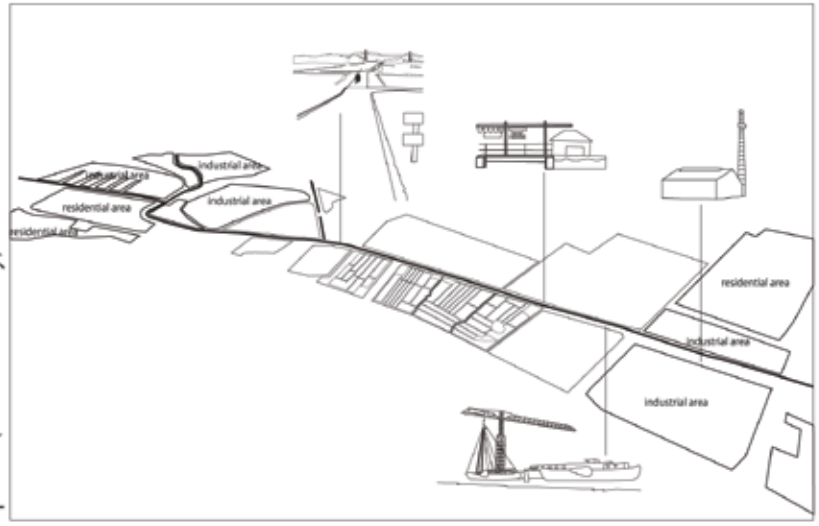
urban and cultural facility



recrational activity

cultural activity

middle park and agriculture area



local / neighborhood use

public use

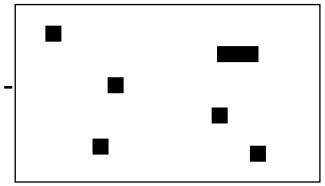
local / neighborhood use

residential area

woods area

special agriculture

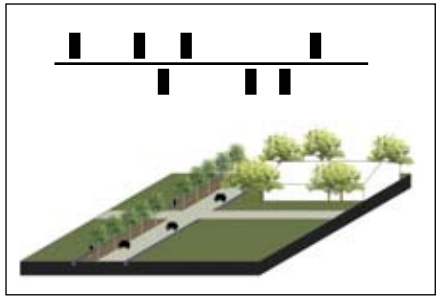
museum park



lake

park way

event space+ field



wetland

woods area

residential area

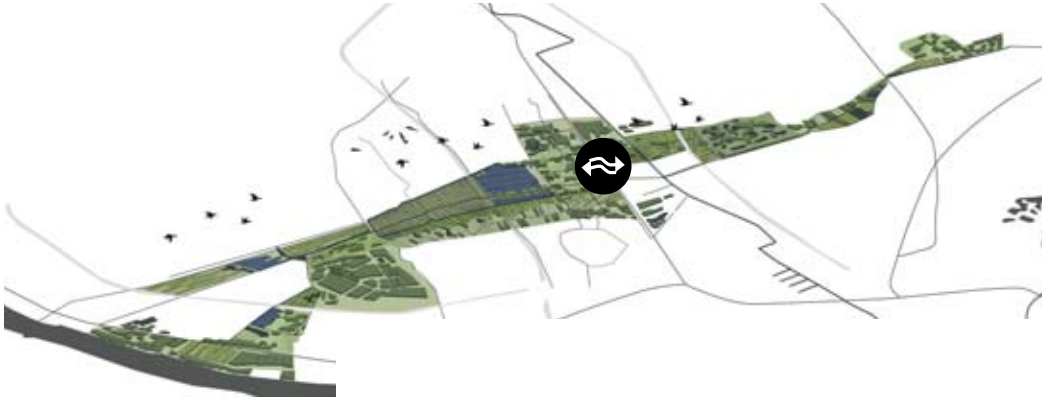
Program location
Middle park is dividing into zones by urban grid road. Each zone has different green typology, facility and activities.
Since train station will be placed in middle of the park, public facilities and activities much as museum or even space also going to be placed in the middle. People can access to these facilities without renting bike in station.
On the other hands, near residential area, woods area or local park will be take place. People can enjoy biking, picnic or sports in daily life.

Special agriculture area / vegetable garden
This zone is vegetable garden that people can rent field in long term or short term. Individual rent is possible but also rent by group will be interesting. Neighborhood user can use as garden for daily life, but also metropolitan user can rent field and enjoy in weekend. There will be facility that rent tools for cultivate and instructor will be there. Corporation with university or some company will be desired.

Museum Park
Several building will be built inside of the park. There will be one big museum that is for permanent exhibition and other will be studio or conference room. Studio will be rented for users, and people can do exhibition. Also it is possible to use as working space for art. In weekend some workshop will be given.

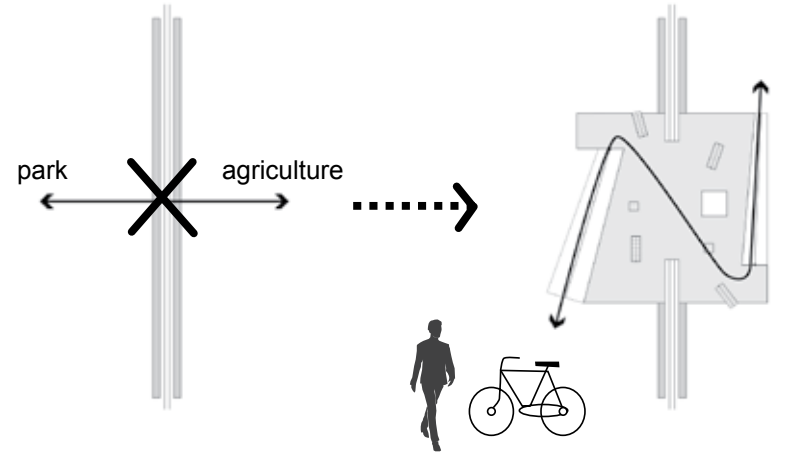
Even space and field
This zone is for big even such as music even that needs big field and big facility. Since this park is in between big cities and accessibility by public transportation and car is good, it is good place to have big event, which many people attend.

Lake area
Lake size is similar with Kralinge Bos. People can feel big open space in here. For activity, one side of the lake is planned as beach so people can enjoy sun in summer. Also sailing boat is possible and along lake can do champing.



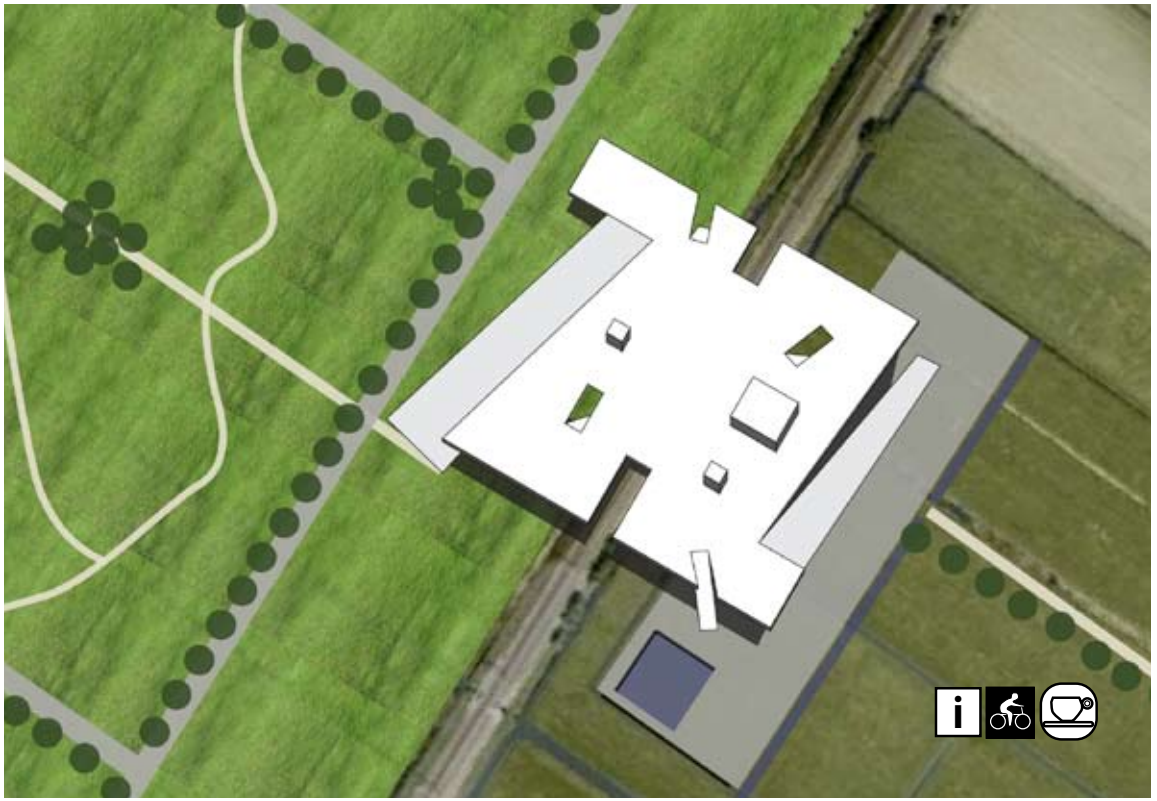
Station

Station is located in middle of park.
Now train truck is becoming boundary of this area. Station will be the bridge between park and agriculture area. It is 150m and 150m long. Slope is applied in both sides that people can clime by bike. On the top of the roof will be huge platform that people can have view of the whole area. It is around 10m high (since existing train truck is elevated around 3m).
In the station, information center, bike rent, cafe ad supermarket will be placed.



divide by train truck

station can use as bridge



Edge of the park and through to lake area

Edge of the park that face to residential area, local road and bike path will be made to access to park. In the entrance of the road, trees are start to planned that people can feel continue to go into the park. In the middle there will be wetland that people cannot go in but can passing through. Residents can feel nature near the house. Once reach to lake huge horizon can feel which is unable to feel in urban space.

lake

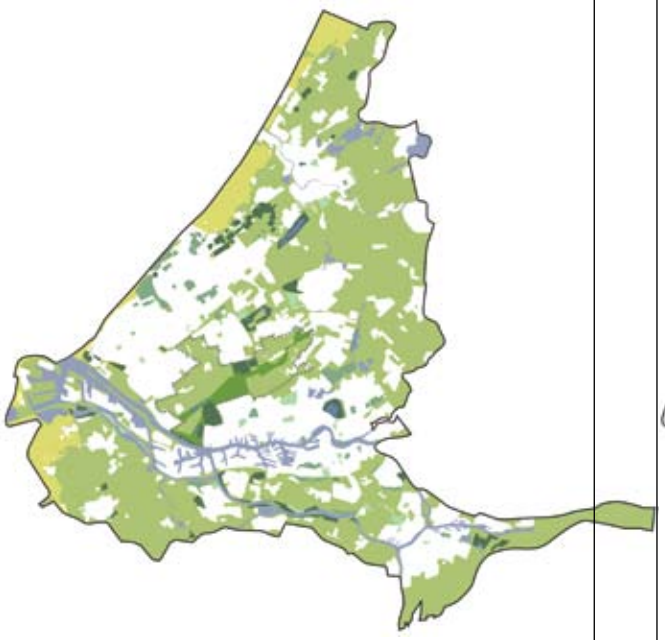
wetland

woods / sports firld area

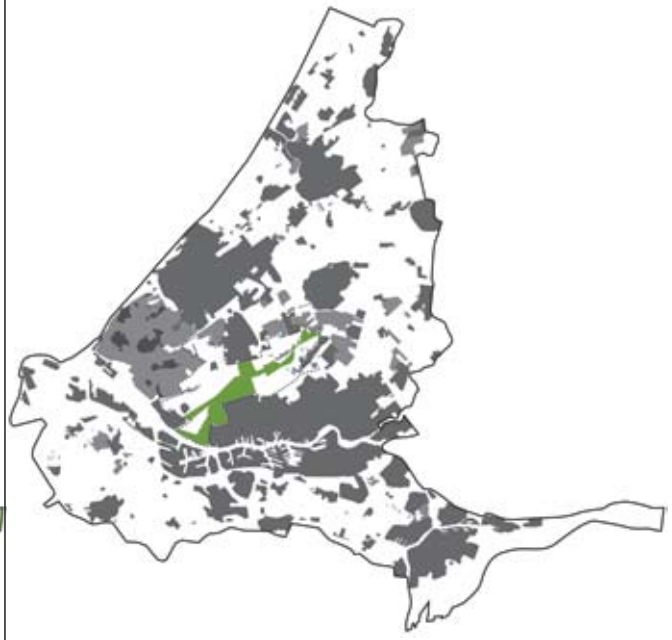
residential area

Conclusion

Following list are the keywords for each categories. In order to consider about meaning or possibility of regional scale open space, it need to pick up the essential amount and meaning of landscape typology, and location which influence to built area, and how to think about relation with flowscape will be important. Also social demand or need will be change by time. In order to answer to requirement, regional open space needs to be flexible for it position.



Theater / unbuilt area and park relation

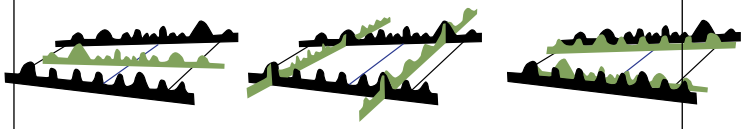


Plantation / built area and park relation

Flowscape and park relation

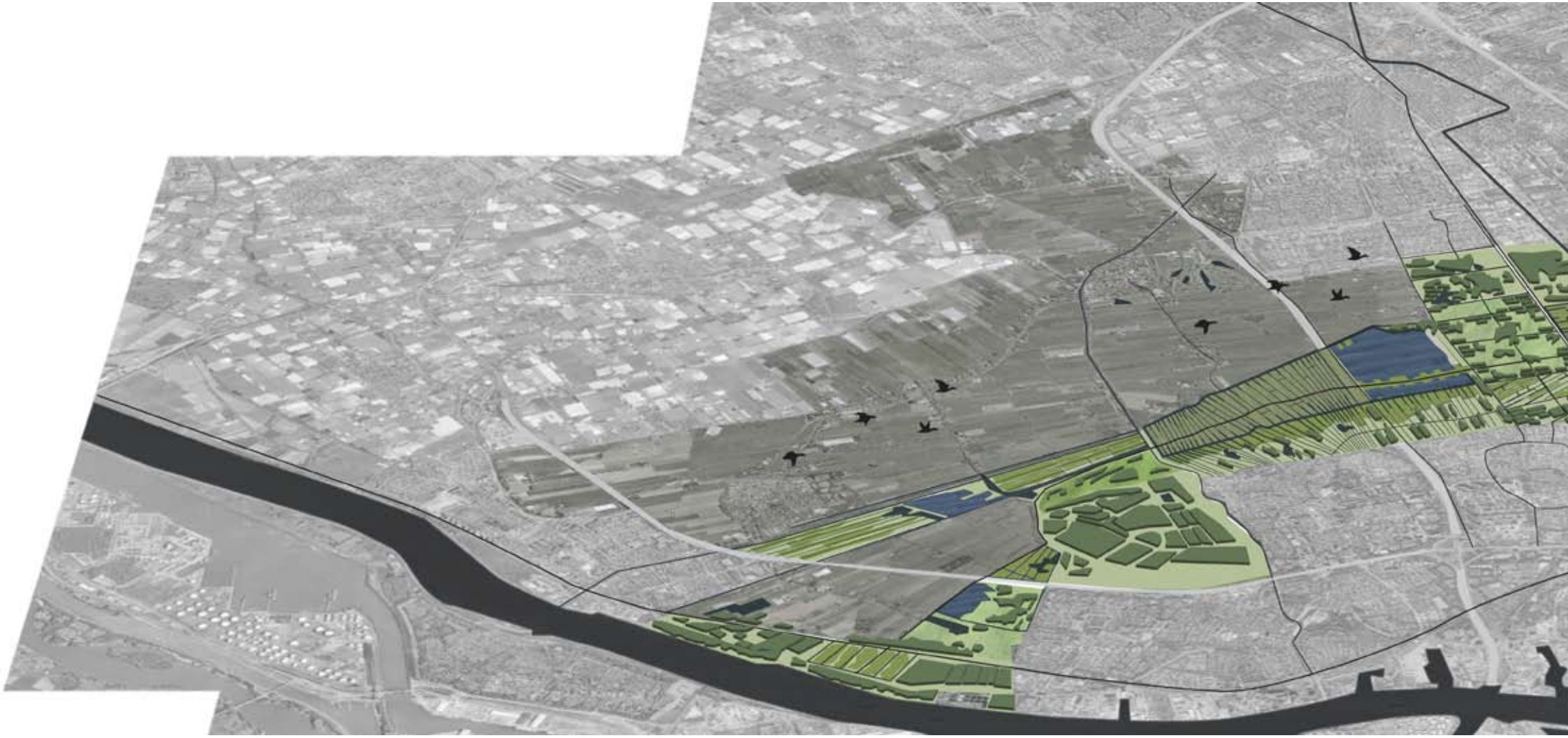
Landscape typology
-agriculture area (food producing)
-park (recreational area)
-lake (water storage)
-natura area(ecological corridor)

Scale
-regional or national scale
-urban scale
-neighborhoodscale



Location
-cutting urban
-giving open space in between cities
-give continuety between cities by green space
-defending urban extention
-placing nighborhood open space

Meaning
-connecting urban space and passing through open space (easy to become boundary)
-oppoerunity to have accessibility
-make place non hierarcy for accessibility



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Dr. Ir. Frank van der Hoeven	Urban Design
Prof. Ir. Eric Luiten	Cultural history & Design
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