Structure Presentation

Motivation
Problem Statement
Main Research Question
Structure Project
Problem Analysis
Design Case Studies
Criteria
Location Analyses
Vision
Strategy
Strategic Interventions
Toolbox
Spatial Consequences
Dynamic Living Environment
Last steps
Large-scale infrastructure that is meant to connect on a large scale can create a barrier on the local scale causing problems in the urban environment.
Ring infrastructure is a special case - meant to divert traffic around city centre but also excluding urban areas from the city centre.
Main research question

What kind of spatial strategies can be used to make local spatial interventions in order to let large-scale ring-infrastructure act less as a barrier for urban area outside the ring and how can the local interventions be used in other situations with similar problems?
What kind of spatial strategies can be used to make local spatial interventions in order to let large-scale ring-infrastructure act less as a barrier for urban area outside the ring and how can the local interventions be used in other situations with similar problems?
Structure Project

Problem Analysis

Design case analyses

Location analyses

Tests

Vision + Strategy

Spatial consequences

Dynamic living environment

Criteria

Toolbox

Problem

Analyses

Vision

Strategy

Design

Tests: 10 m N 20 m N 10000 m

Dynamic living environment

Specific: Densification, mixed functions, urban environment

Generic: Input, Output

Dynamic living environment

Extra Connection

Regular Connection

Lifting the railway creates an open space under it

Existing situation

Getting rid of the slope

Existing situation

Getting rid of the slope

Extra Connection

Regular Connection

Lifting the railway creates an open space under it

Toolbox

Specific: Densification, mixed functions, urban environment

Generic: Input, Output
Space Syntax

Space syntax analysis

Space syntax analysis
Visibility Analyses

- Isovist
- Agent based modelling
- All line analysis
Problem Analysis

Connection is Competitiveness

Major driver of cities competitiveness, more important than safety

Infrastructure was planned in between urban areas, but cities grew towards it.

Infrastructure designed by engineers: out of scale

Important to locally integrate the nodes of infrastructure.
Design Case Study
Design Case Study

[Diagram with various maps and analyses]
Design Case Study

Amsterdam

Rotterdam

Brussels
Design Case Study
Criteria

Physical Barrier

Spatial Fragmentation

Psychological barrier

Problem
Analyses
Vision
Strategy
Design
Location Analyses
Regionale ontwikkelingen van woonmilieus in lagere dichtheden. sociale opgave, de klimaatopgave en voor het realiseren dan de ringzone, hier liggen strategische locaties voor de economische dynamiek van Amsterdam en haar regio. Succes, zowel wat betreft financiële en maatschappelijke projecten en programma’s die binnen de overlappende Zuidas, Houthavens en Overamstel.

Omheen zijn grote concentraties werk- en onderwijslocaties met belangrijke infrastructuur liggen hier veel knooppunten en met het centrum. Doordat dit gebied samenvalt Noordelijke IJ-oever in het noorden. De Noord/Zuidlijn De ringzone en het gebied binnen de ringzone zijn bestuurlijke doelstellingen liggen in de ringzone. Bestuursopdracht Stedelijke Vernieuwing, laten zien dat gesprekken met woningcorporaties in het kader van de overheidsinversie, het meeste programma en is de verdienpotentie, samen vanuit de markt de kracht van deze locaties wordt benutten van knooppunten en energietransitie benutten van knooppunten en energietransitie.
Two barriers
Analyses

Accessibility map

Isovist analysis
Two barriers

Analyses

Sections railway

Aerial view research area, Source: www.bing.com/maps
Vision

Research area
Test scenario

Integration Angular R3 Scenario 2

Existing situation

Extension Jan Evertsenstraat with a few extra connections from Slotermeer
Vision

Project area
Possible New Development

Existing axis

Extension axis = Intervention on larger scale

New Station

Open space next to rail

Extra connections on smaller scale

Repeat improvement

Adjustment railway

Experience of the connection
Strategic Interventions

Extension axis
Creating a line

Intervention

Current situation

Buildings on both sides

Trees (or other repeating elements)

Water as a guide

Trees as a guide

Constant open surface
New Station
Intervention

- New station
- Space next to new station
- Improve plinths
- Road arrangement
Adjustment Barrier

Intervention
Adjustment Barrier

References
Adjustment Barrier

Tests

Agent Based modelling analysis

Isovist analysis
Extra Connections

Intervention

Accessibility map

Isovist analysis
Extra Connections

Tests

Agent Based modelling analysis

Isovist analysis
Extra Connections

Tests

Agent Based modelling analysis

Isovist analysis
Improving Plinth

Intervention

- Existing situation
- Houses in plinth
- Garden in front of the houses
- Functions in plinth
- Extension plinth
- Improve sidewalk
### Toolbox

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<td>Next to Connection</td>
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### Toolbox

<table>
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<th>Tools</th>
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<th>Test</th>
<th>Design</th>
<th>Combination tools</th>
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</table>
| Adjustment barrier | Main      | City district | Isovist + Scenarios | Important to combine with a good design. This tool creates better conditions in the urban area which need to be unlocked by an adequate design. | - Extra Connection  
- Program: * Next to Barrier | Spatial Quality |
| Extra connections  | Main      | Neighbourhood | Isovist       | The tools ‘Creating Line’, ‘Plinth improvement’ and ‘Program’ can be used to design this intervention. | - Creating line  
- Plinth improvement  
- Program: * Next to Barrier  
* Next to connection  
- Adjustment barrier | Mobility |
| Creating line      | Support   | Neighbourhood | Scenarios     | When adding buildings is used in this tool it is important to look at the plinth improvement tool to avoid previous mistakes. | - Plinth improvement  
- Program: * Next to connection | Spatial Quality Experience |
| Plinth improvement | Support   | Street scale | Scenarios     | What is the spatial impact of this intervention? | - Extra Connection  
- Program: * Next to Barrier  
* Next to connection | Spatial Quality Experience |
| City scale connection | Main | City scale | Space Syntax | What is the experience of the line? | - Creating line  
- Plinth improvement | City scale coherence |
| Adding station     | Main      | City scale | Node          | What happens in the area around it, spatially and programatically? | - Program: * Next to Barrier  
* Next to connection | Integrating the infrastructure  
Attraction instead of chaser  
Creating potential |
| Program            | Support   | City scale | Conditions    | Program itself should be combined with good spatial quality | - Adjustment barrier  
- Plinth improvement  
- Adding station  
- Extra connection | Spatial Quality  
Attraction instead of chaser |
| Next to Barrier    | Support   | City scale | Conditions    | Program itself should be combined with good spatial quality | - Extra Connection  
- Creating line  
- Plinth improvement  
- Adding station | Spatial Quality Experience |
Spatial Consequences

City scale connection
Current situation City scale connection
Landuse map City scale connection
Design City scale connection
Spatial Consequences
Small scale connection
Current situation Small connection
Current situation Small connection
Landuse map Small connection

Legend Landuse map:
- Residential
- Businesses or workplaces
- Park
- Railway
- Gardens & spatial upgrade
- Ditch
Design Small connection
Design

Tests

All line analysis open space railway

All line analysis design
Dynamic Living Environment

- Mix use
- High urban
- Increased density
Last steps

- Improve design
- Show new living environment
- Extend conditions new development Sloterplas area