

Projektvorstellung Waterkwartier Nieuwland in Amersfoort , NL

Prof. Dipl.-Ing. Kees Duijvestein TU Delft

Projektvorstellung Waterkwartier **Nieuwland**

in Amersfoort , NL

Prof. Dipl.Ing. Kees Duijvestein

department of Environmental Design

- Delft University of Technology
Faculty of architecture
Group for Urban Design & Environment
- BOOM-Duijvestein bv, Delft



Projektvorstellung Waterkwartier Nieuwland

in Amersfoort , NL

- Zielstellung
aim
- Traegerstruktur
structure
- Inhaltliche Schwerpunkte
main points
- Planungsprozess
proces
- zur Diskussion
for discussion

Zielstellung **aim**

Staedtebau **urban planning**

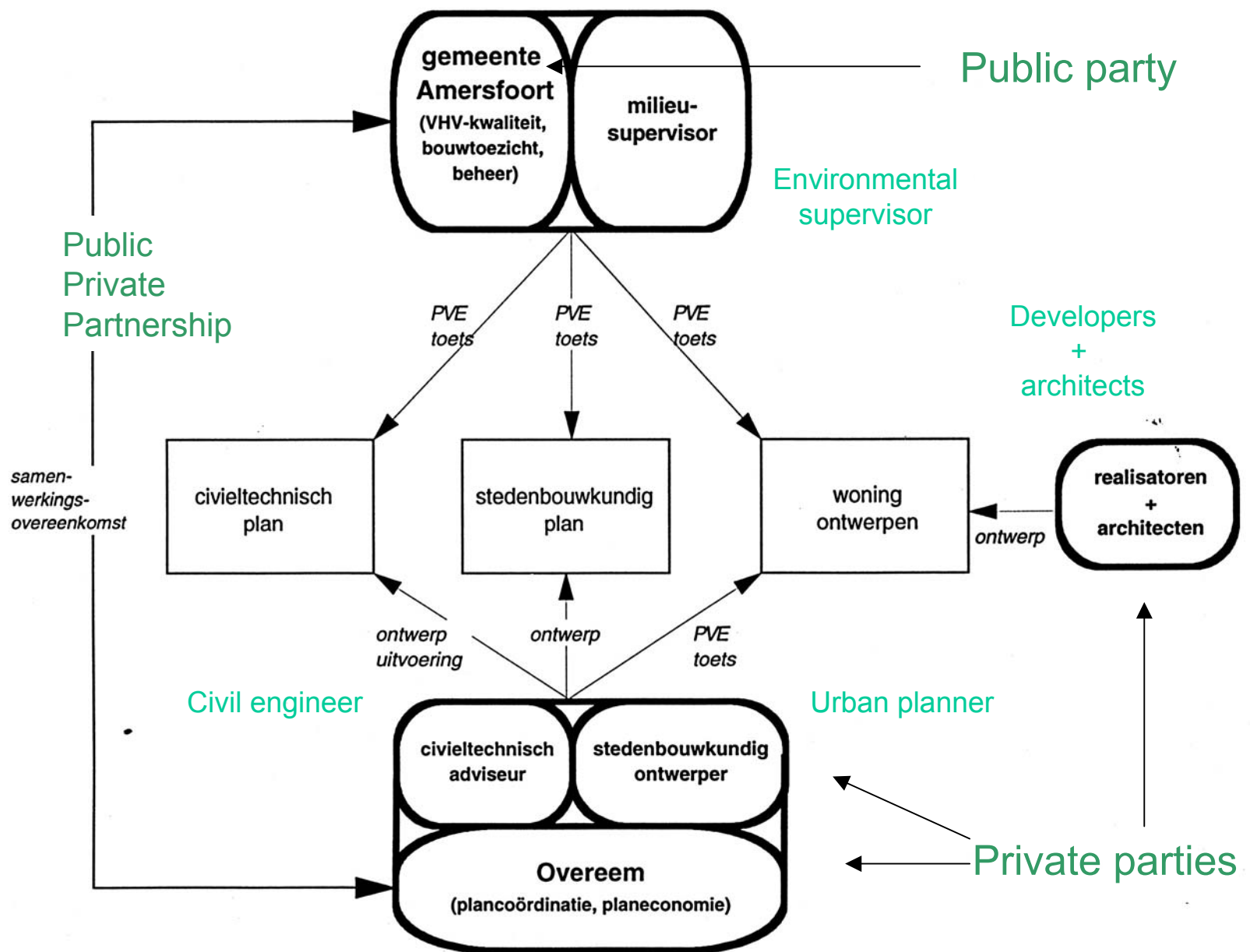
- Nachhaltigkeit

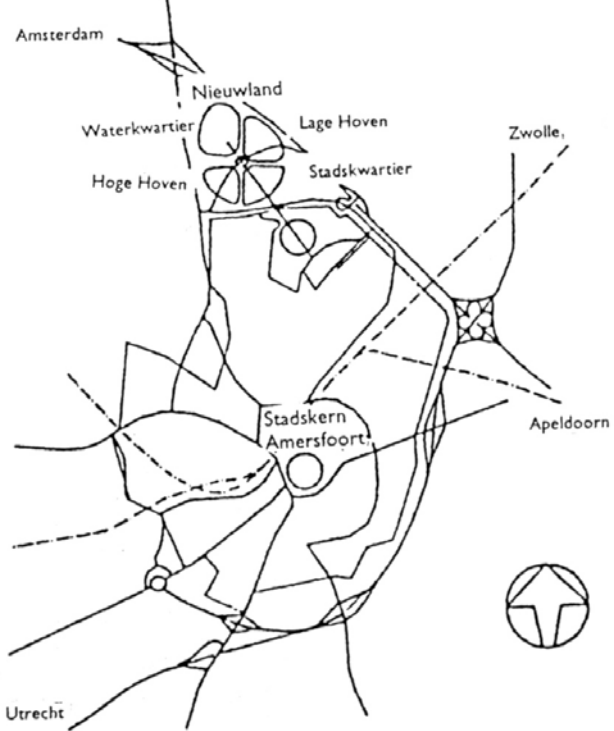
sustainability

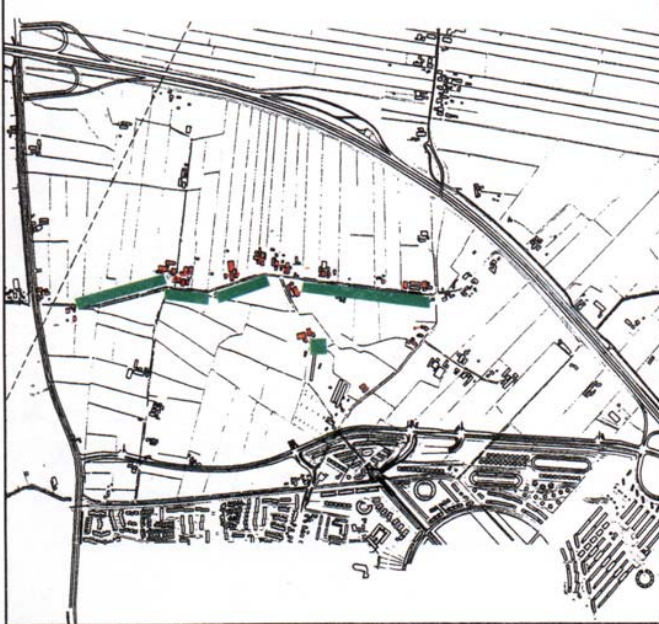
- Neuer Wohnraum

new dwellings

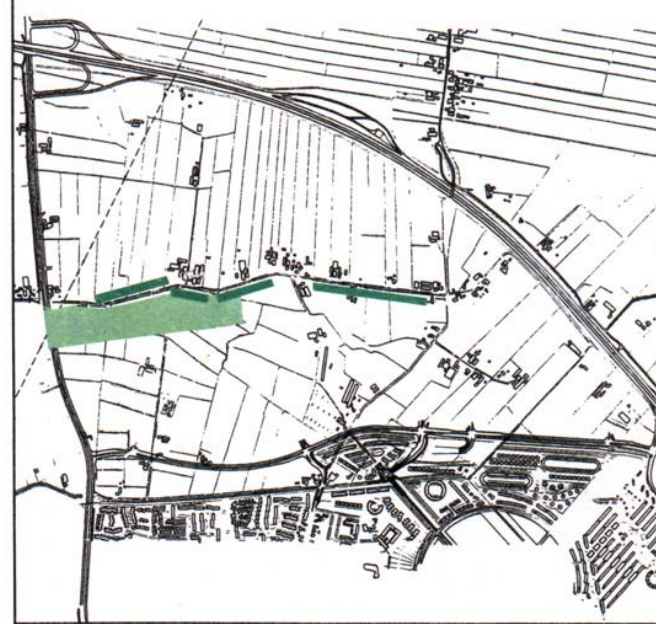




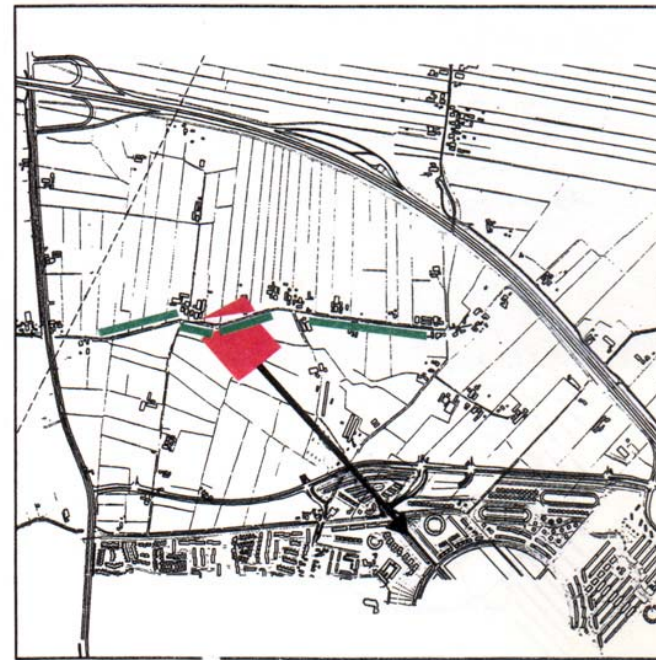
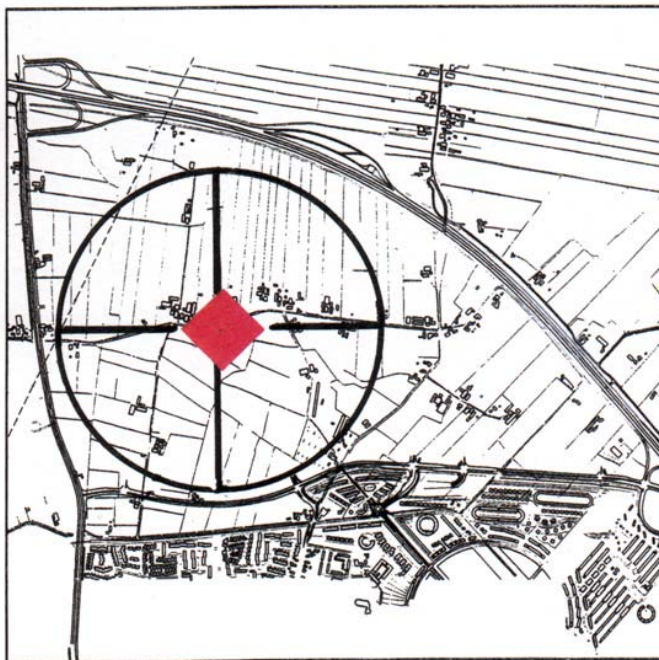




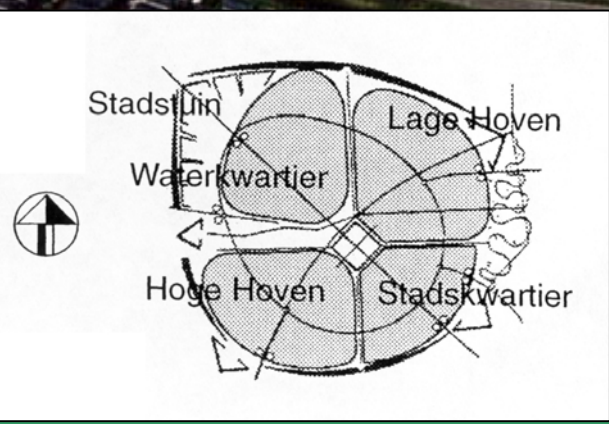
1.



2.

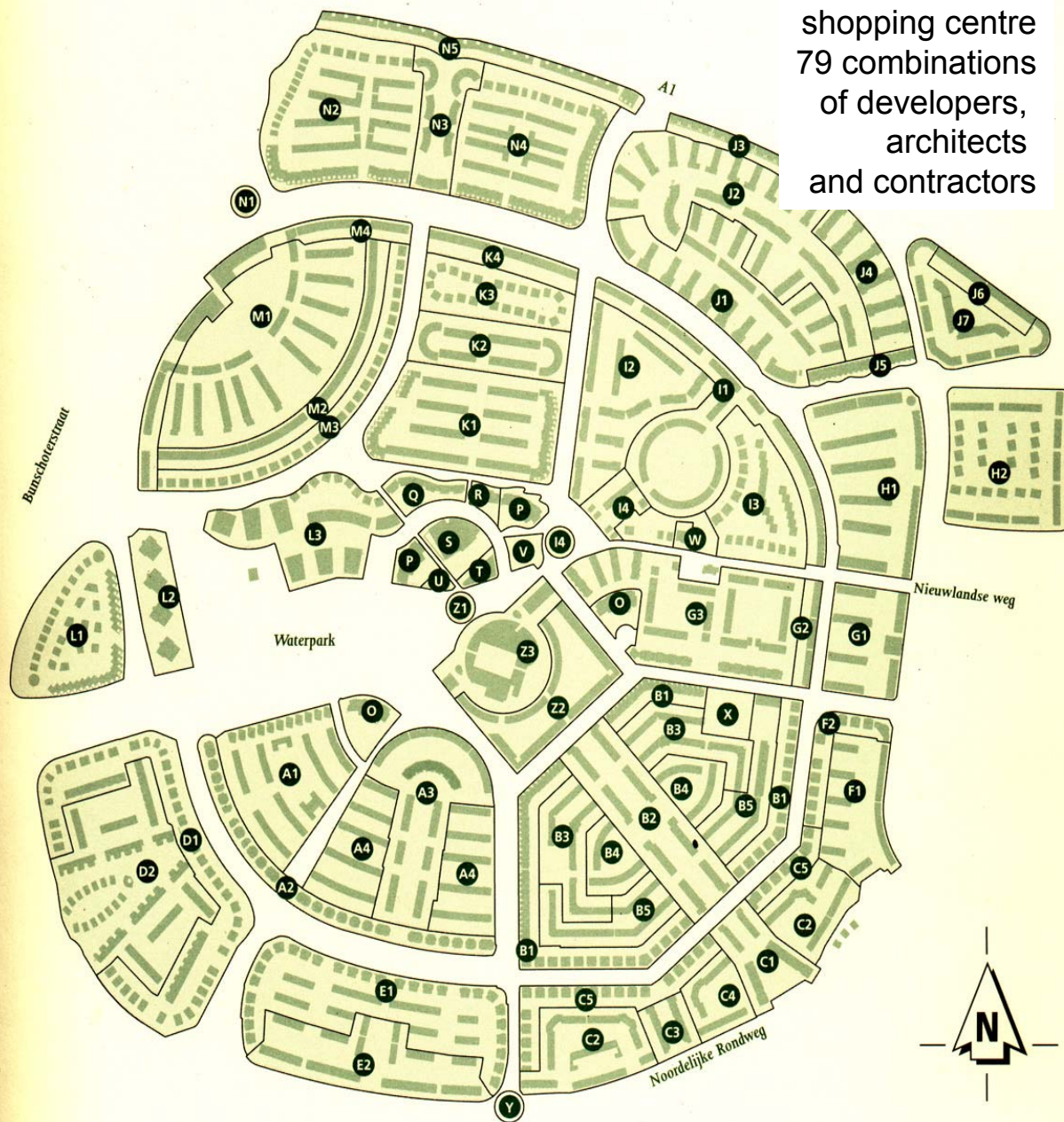






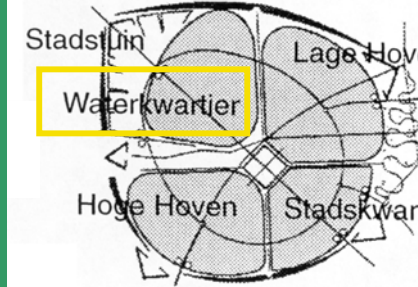
Bouwprogramma Nieuwland

5000 houses
schools
shopping centre
79 combinations
of developers,
architects
and contractors





1.



5.



2.



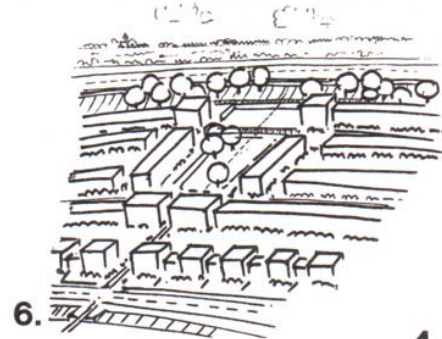
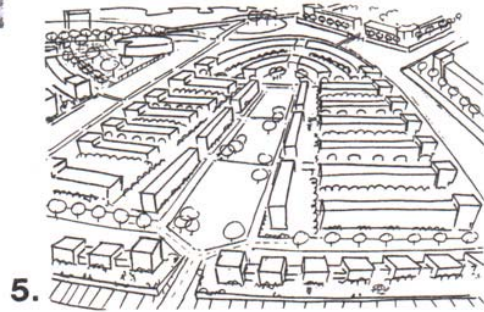
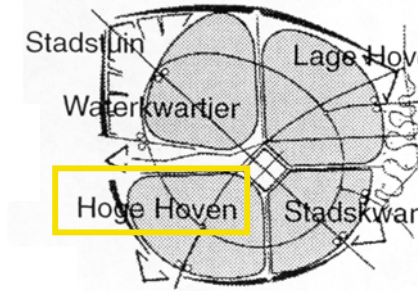
3.



4.

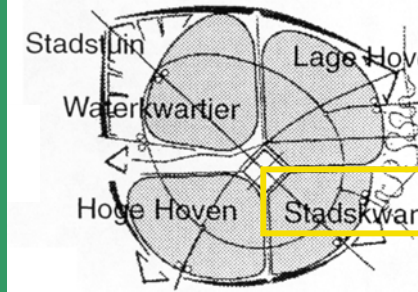


2.



4.

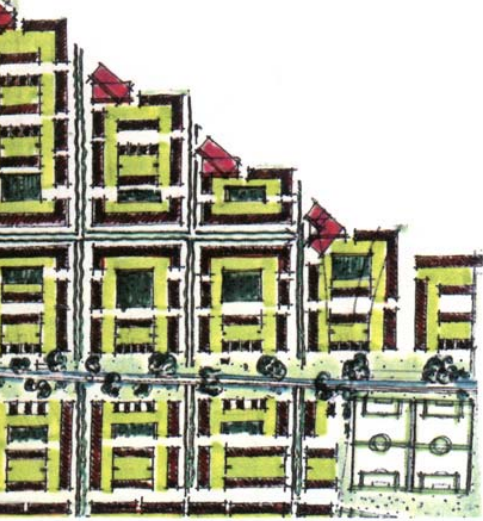




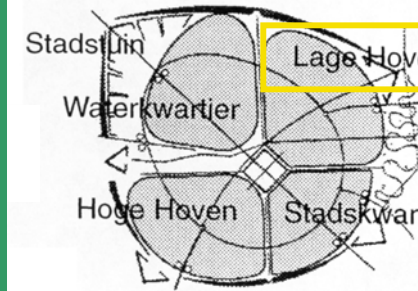
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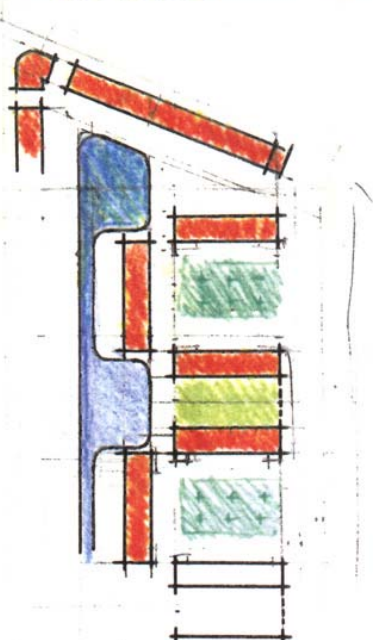
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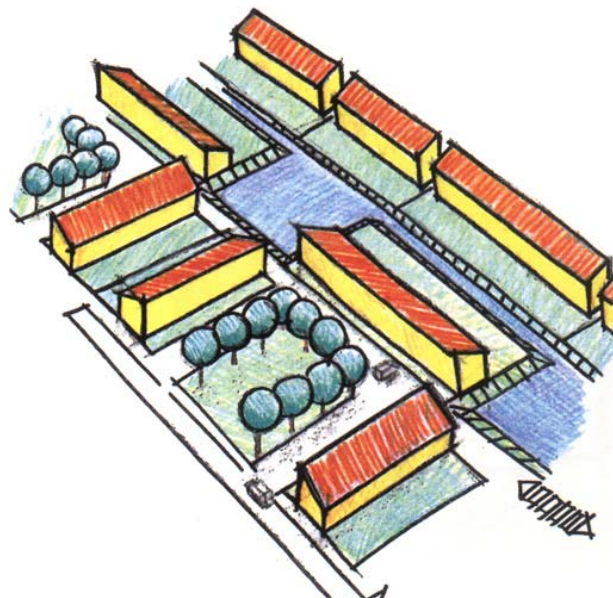
2.



3.



4.

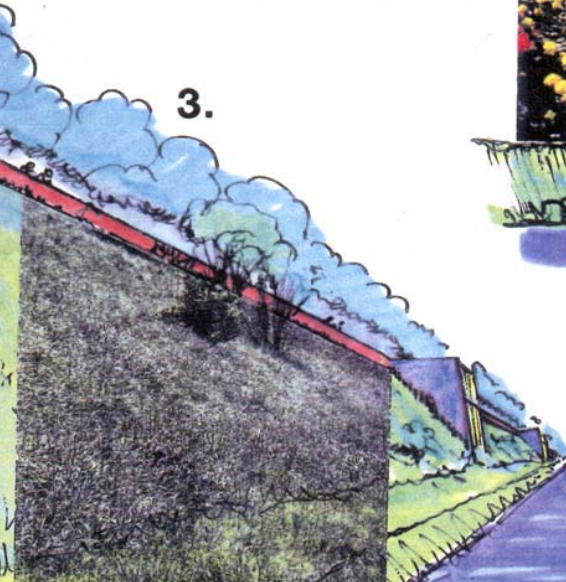




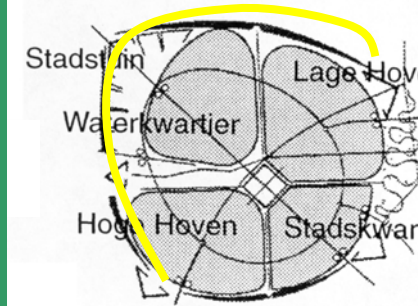
1.



2.



3.



Zielstellung **aim**

Oekologie **Ecology**

Einbettung in bestehende Landschaft

geschlossenes Wassersystem

Sonnenenergie

nachhaltige Baumaterialien

Fahrräder pfad

öffentliche Verkehrsmittel

integration in existing landscape

Closed watersystem

solar energy

sustainable building materials

cicycle path

public transport

Inhaltliche Schwerpunkte **main points**

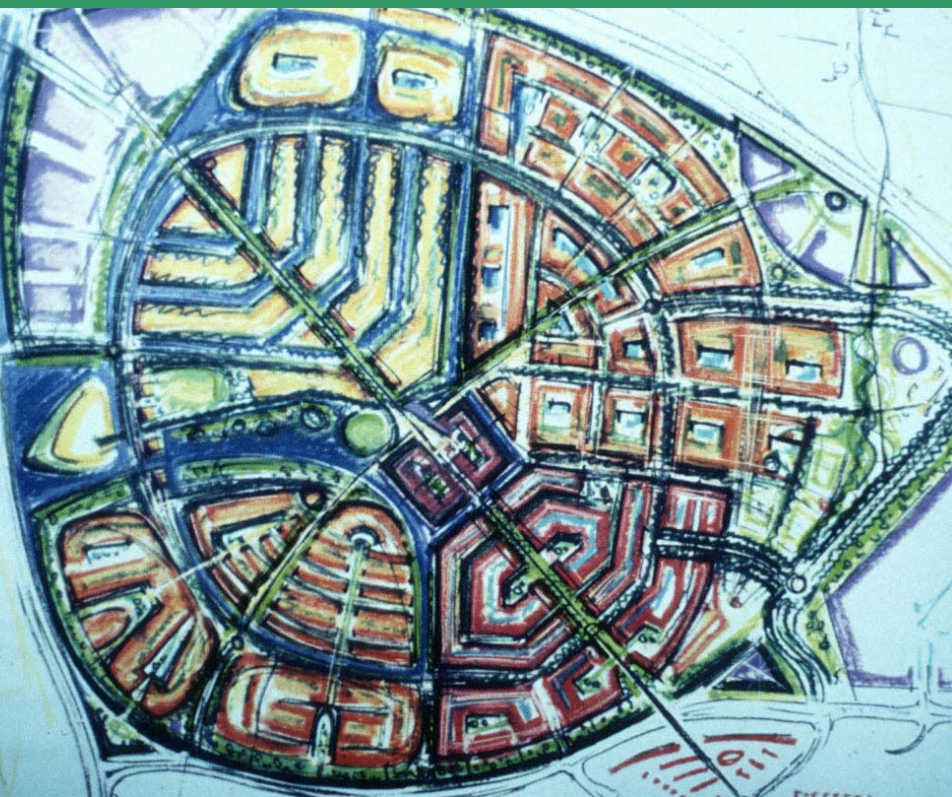
Energie **energy**

- Initiatief von REMU
- Energiebilanz-Wohnung
- 1 MegaWatt projekt
-

initiative by REMU

energy balance house

1 MegaWatt project













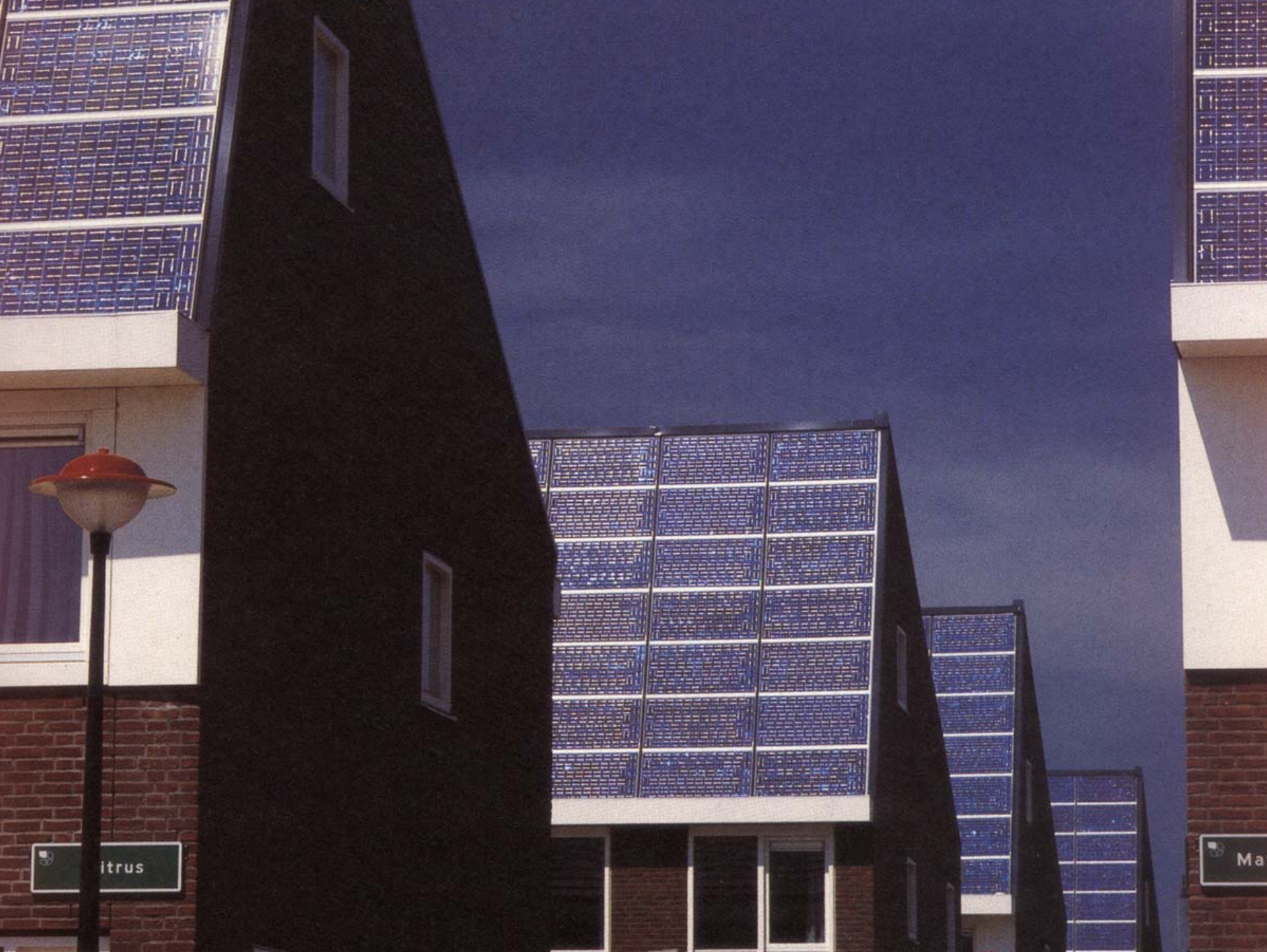










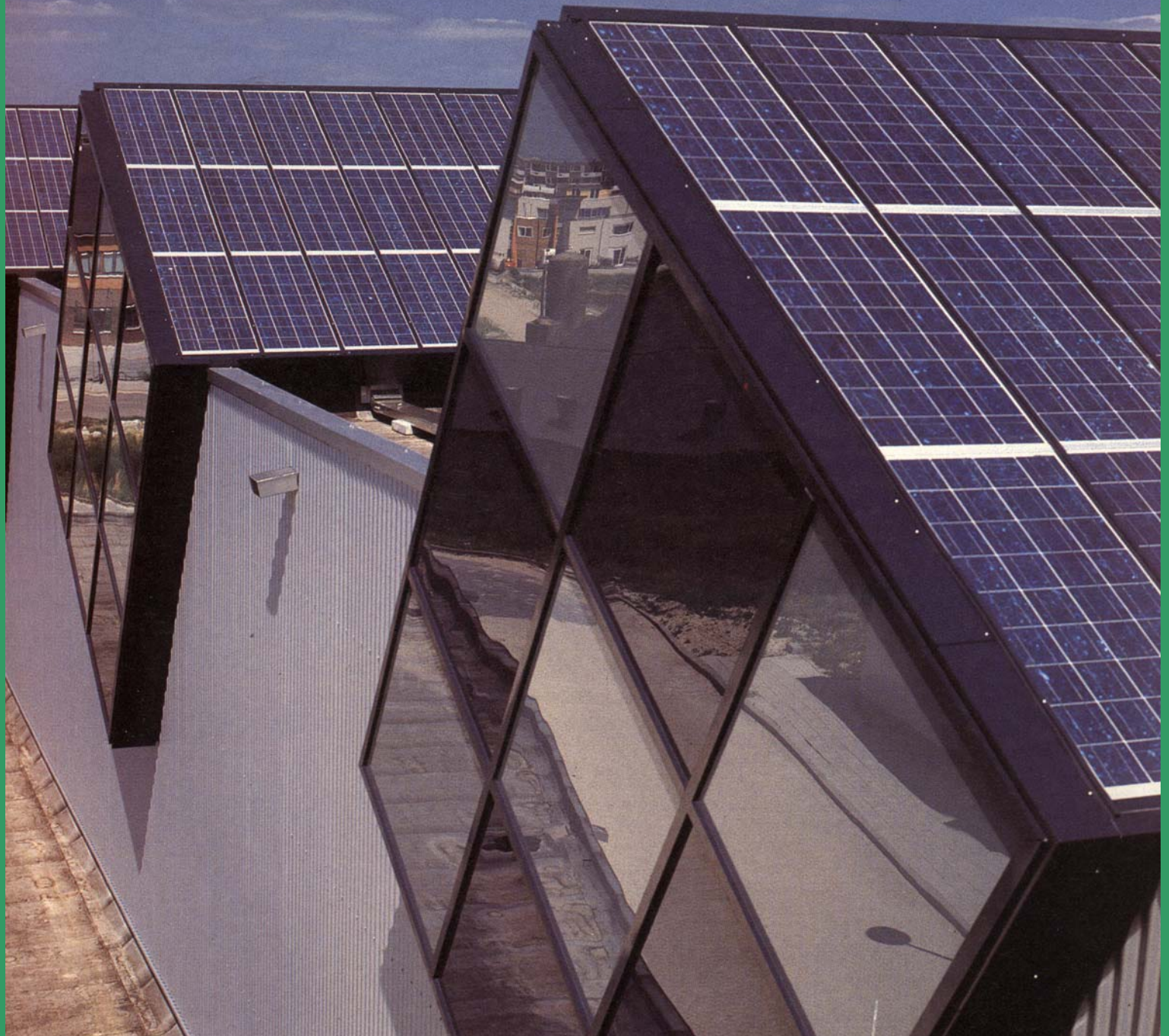


Citrus

Ma











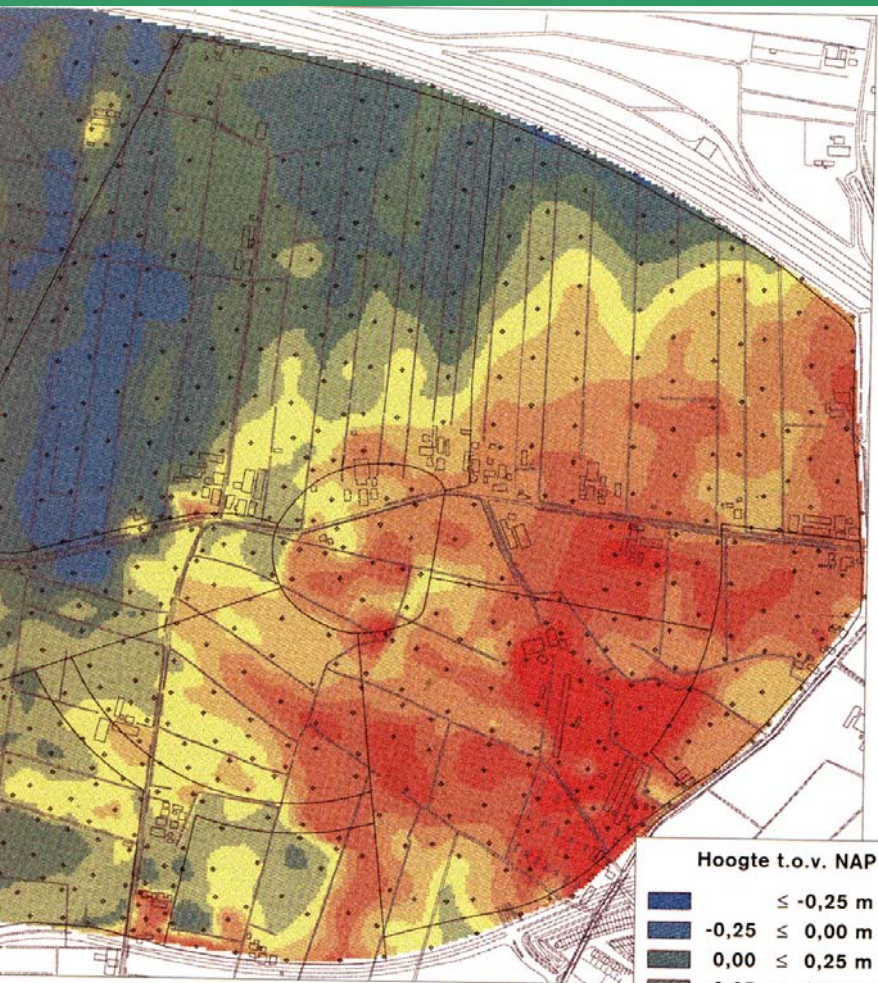




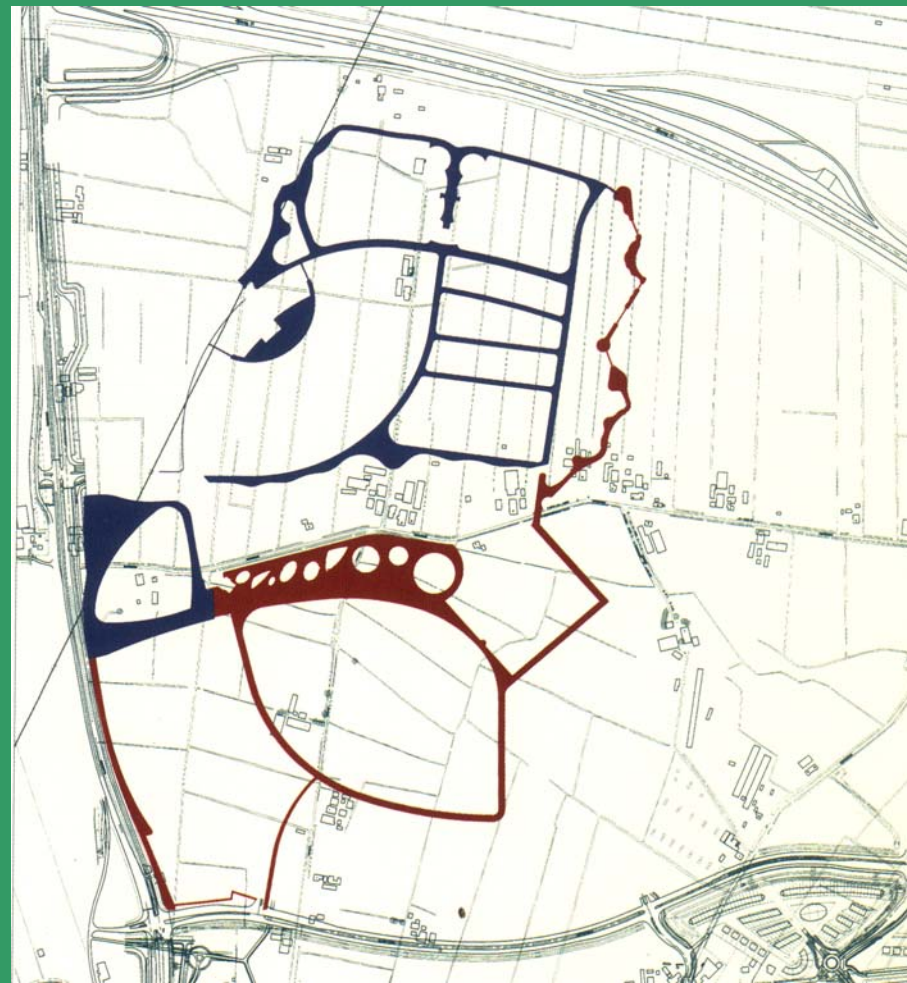
Inhaltliche Schwerpunkte **main points**

Wasserhaushalt **water concept**

- geschlossenes Wassersystem
closed watersystem
- Konzept für höher und niedriger gelegenen Gebiete
concept for higher or lower situated parts



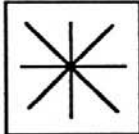
*De oorspronkelijke grondniveau's
in Nieuwland zijn zoveel mogelijk
gehandhaafd.*



Red - 50 cm
Blue -100 cm



sparen/ gebruik maken
van landschapsstructuur
inclusief bebouwing en
beplanting



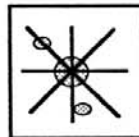
directe, comfortabele en
sociaal veilige
langzaam verkeer routes



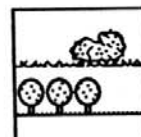
beeld van het groen:
ruig of rosarium



rekening houden
met hoogteverschillen
oa tbv waterhuishouding



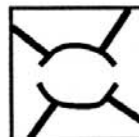
voorzieningen aan
langzaam verkeer routes



extensief en
intensief beheer
van het groen



schoon water vasthouden



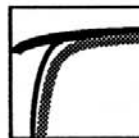
geen doorgaande
autoroutes



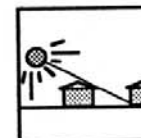
verbeterd gescheiden
rioolstelsel;
regen naar
oppervlaktewater



gesloten grondbalans



afscherming tegen
verkeerslawaai



belemmeringshoek
17 of 24 graden



(doorgaande)
ecologische infrastructuur



wonen en werken
integreren



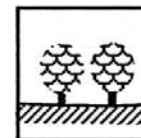
hergebruikt materiaal
toepassen



oriënteren op de zon



recreatie op fiets en loop
afstand



aanplant van fruitbomen
in openbaar groen



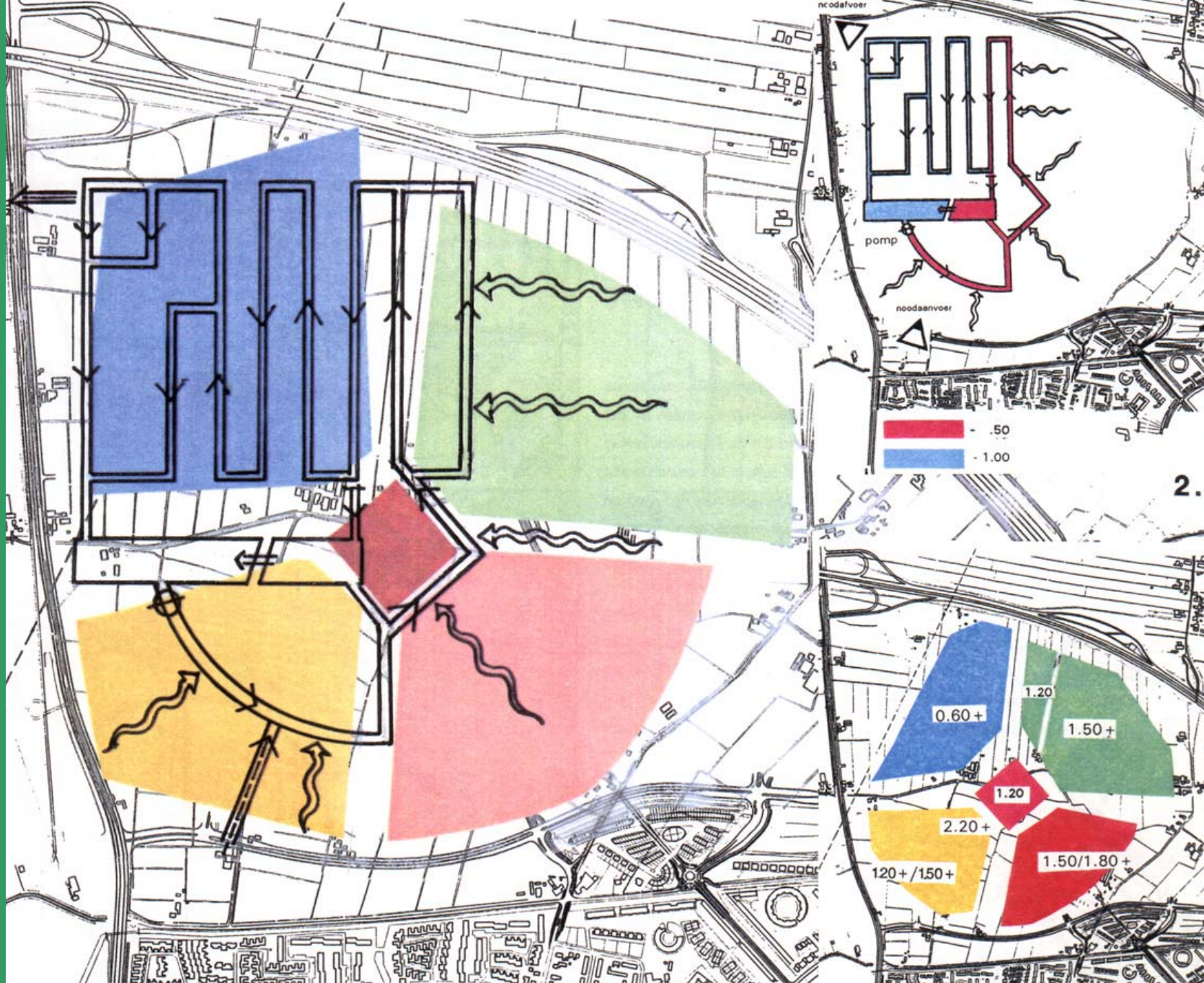
goede openbaar vervoer route
door de wijk en naar NS



intensieve en
extensieve recreatie



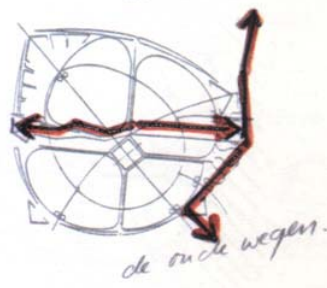
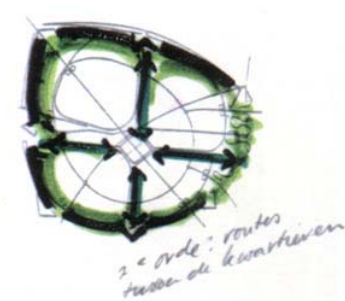
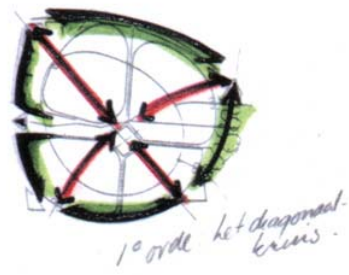
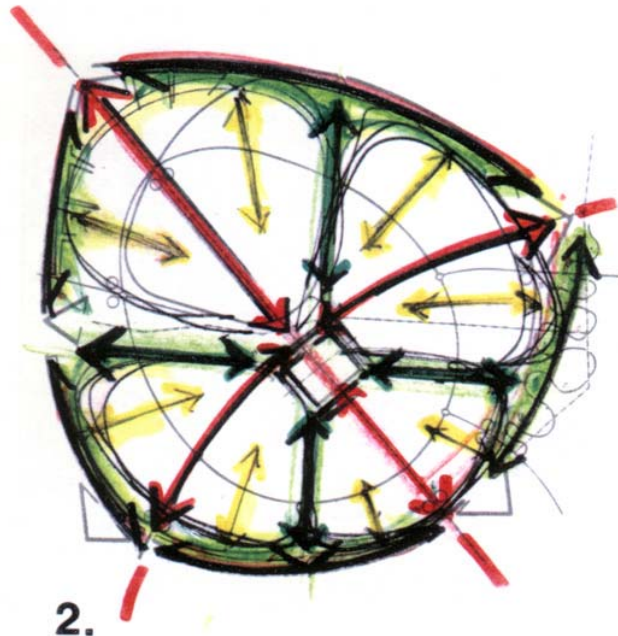
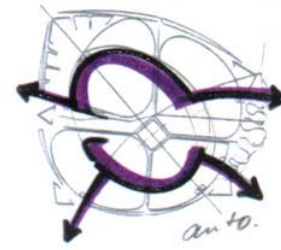
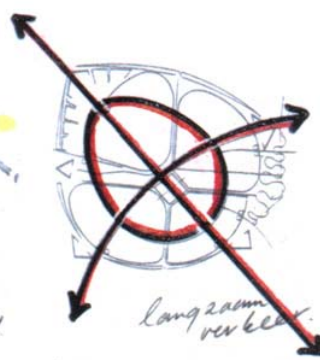
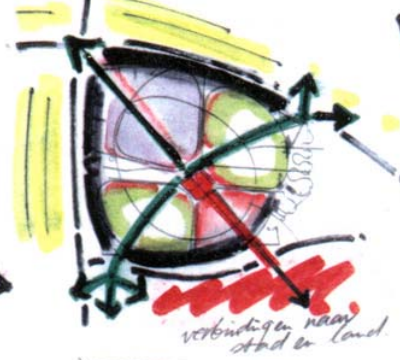
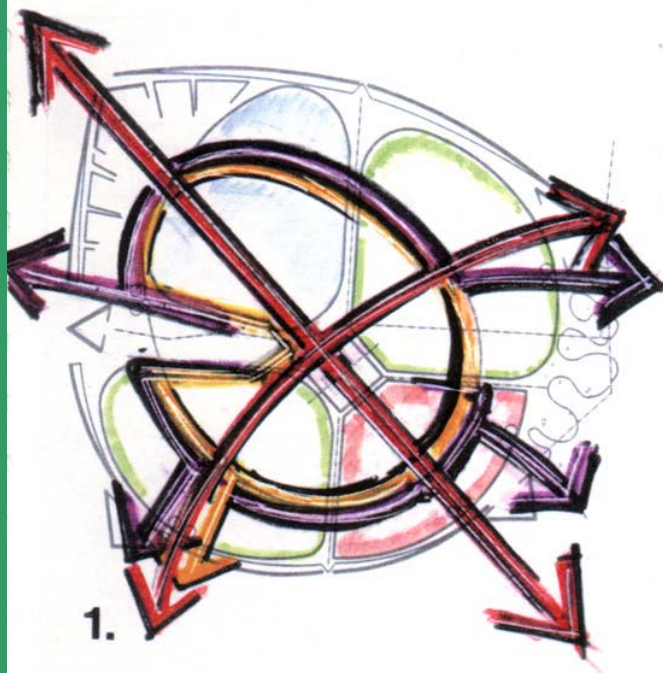
gebruik duurzame
bronnen voor
thermische energie



Inhaltliche Schwerpunkte **main points**

Verkehr **traffic**

- Öffentliche Verkehrsmittel
public transportation
- Netz von Fahrradwegen
bicycle path network



Planungsprozess **planning proces**

Beschlussfassung **decisions making**

- Umwelt Supervisor
environmental supervisor
- DCBA Methode
DCBA methode

Method of four variants (DCBA)

- D - The normal situation
- C - Rectify normal usage
- B - Minimize damage to the environment
- A - Absolute most favourable situation

Theme: unmotorised traffic

pedestrians & bicycles

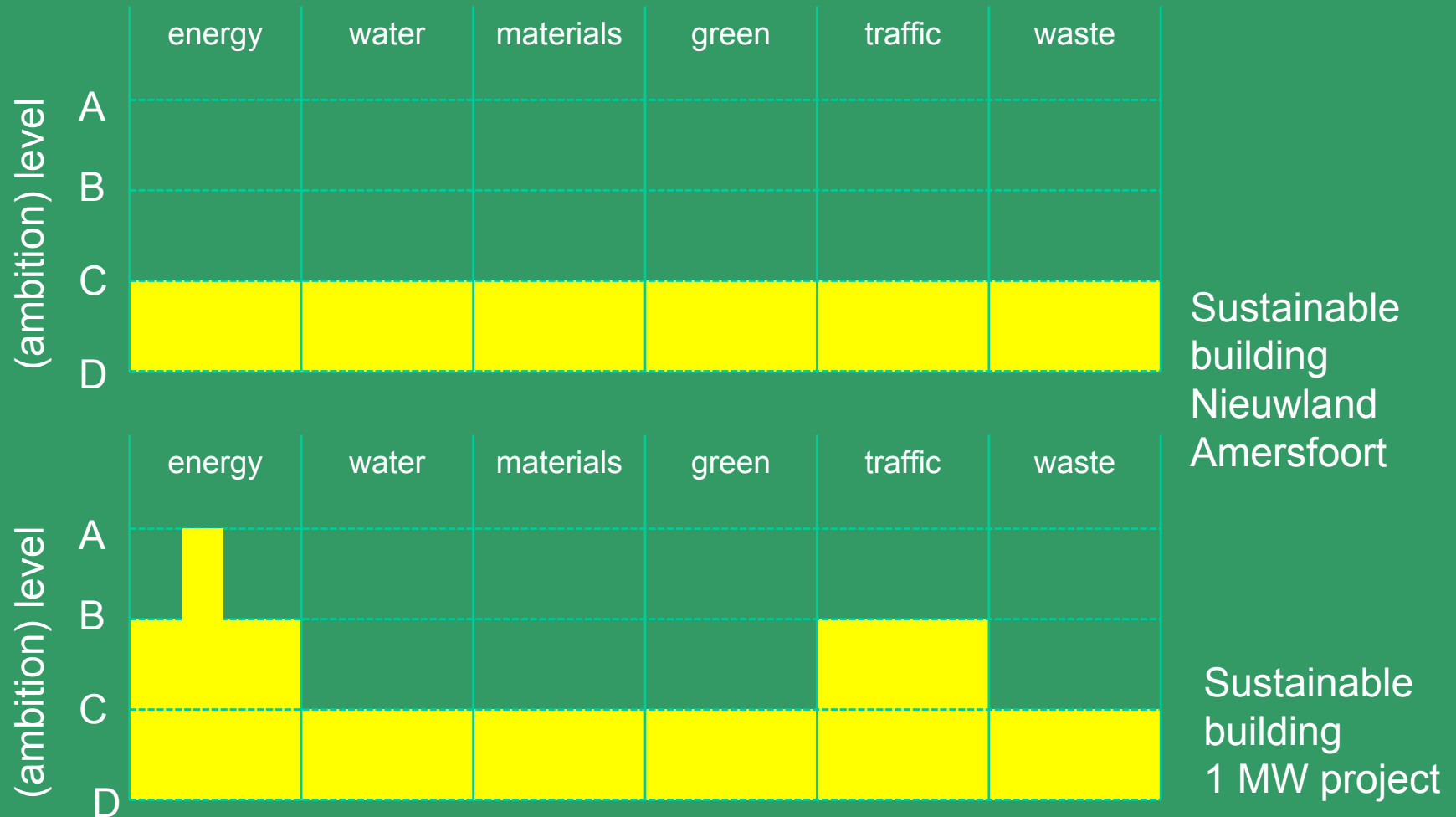
D: flexibel, therefore low priority

C: determines urban structure

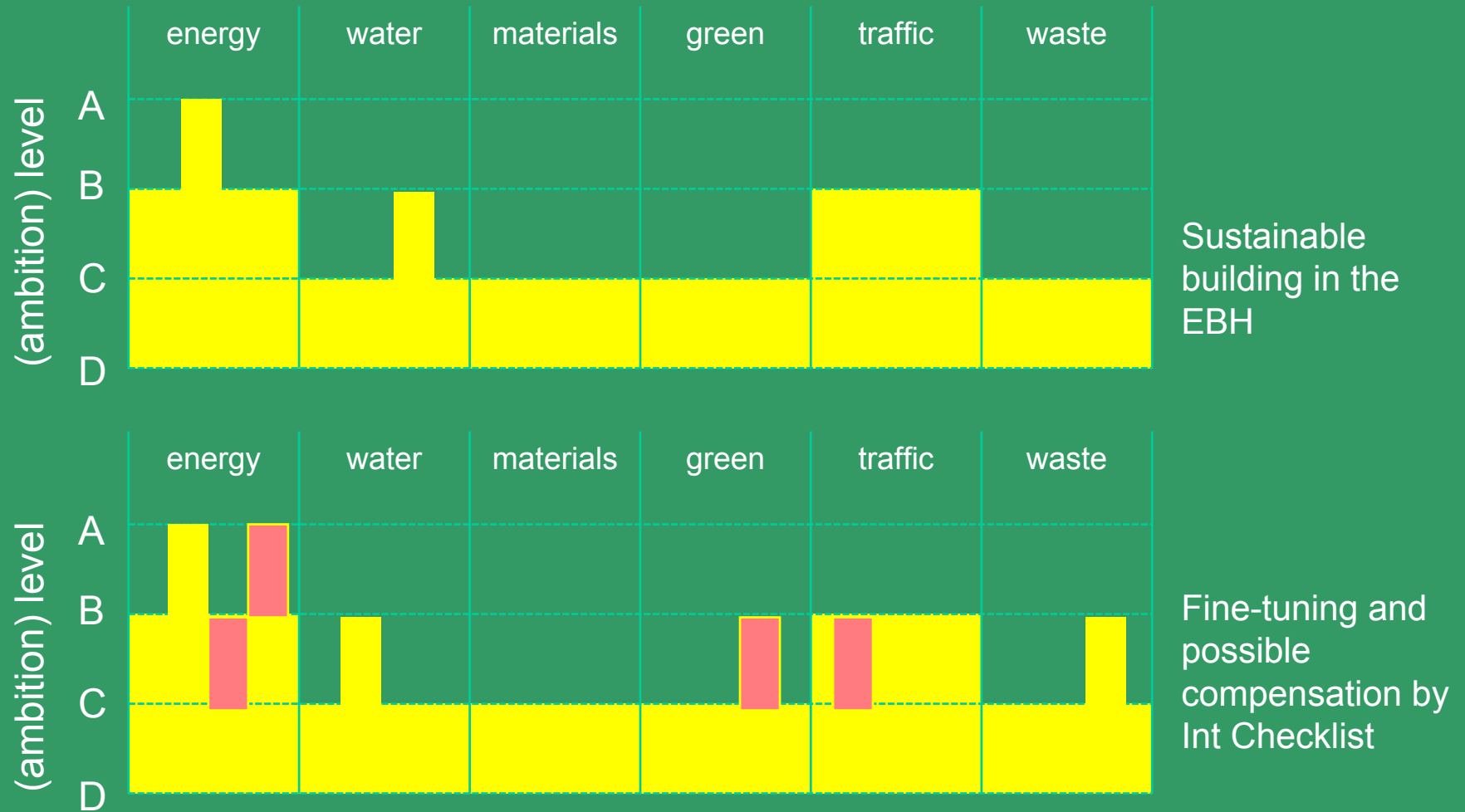
B: + right of way

A: + only means of transportation

Environmental profiles



...and from region to project

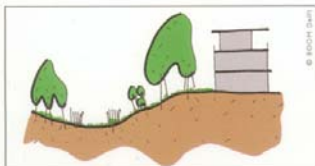




7 themes, 4 subthemes, each 4 sustainability levels
112 sustainable building cards

GROEN

ecologie / natuur
bouwrijp maken
erfafscheiding
beheer

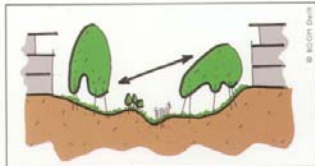


- D snippergroen; eenzijdig ecologisch milieu
- C zonering gebruiksdynamiek
- B potenties bodemgradiënten benutten
- A onderdeel ecologische infrastructuur

ecologie / natuur

GROEN

ecologie / natuur
bouwrijp maken
erfafscheiding
beheer

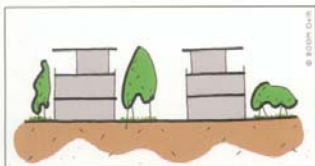


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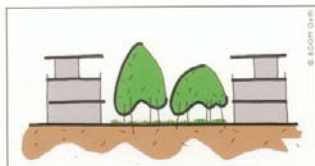


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- C zonering gebruiksdynamiek
- B potenties bodemgradiënten benutten
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ecologie / natuur



Energie

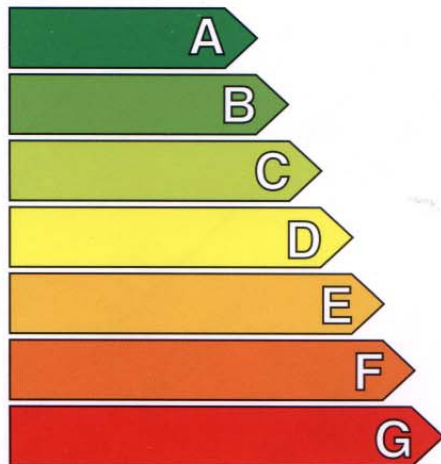
Koel/Vries

Fabrikant

Model

refrigerator

Efficiënt



Inefficiënt

Energieverbruik kWh per jaar

Gebaseerd op de resultaten van een standaardtest gedurende 24 uur

Werkelijk verbruik wordt bepaald door de wijze waarop het apparaat wordt gebruikt en de plaats waar het staat

Inhoud Koelruimte l

Inhoud Vriesruimte l

Geluidsniveau

dB(A) re 1 pW

Een kaart met nadere gegevens is opgenomen in de brochures over het apparaat

Norm EN 153 mei 1990
Richtlijn etikettering koelkasten 94/2/EG



Energie

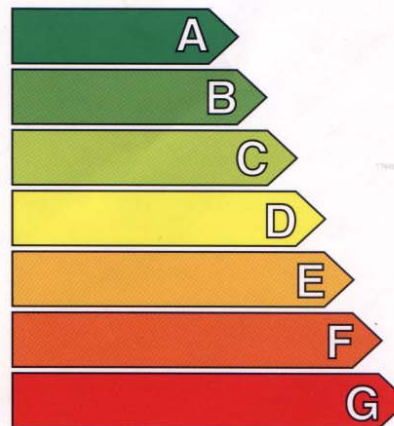
Afwasmachine

Fabrikant

Model

Dish washer

Efficiënt



Inefficiënt

Energieverbruik kWh per cyclus

(Gebaseerd op de resultaten van een standaardcyclus, met toevoer van koud water)

Het werkelijke verbruik wordt bepaald door de wijze waarop het apparaat wordt gebruikt

Afwasresultaat

A: goed G: matig

Droogresultaat

A: goed G: matig

Standaardcouverts

Waterverbruik ℓ/cyclus

Geluidsniveau

(dB(A) re 1 pW)

Nadere gegevens zijn opgenomen in de brochures over het apparaat

Norm EN 50242





Evaluation (design - & building proces)

- The succes depends on the people involved and not on the tools



Evaluation (design- & buildingproces)

- Knowledge management
 - Changing experiences
 - Listen
 - Early brainstorm with all the people involved
- Integral approach
 - Sustainable building (planet) in urban plan
 - Early discussion
 - Results based on discussion



Evaluation (design & building proces)

- Nieuwland Amersfoort guiding municipality
 - Special planet (SB)
- Integral approach
 - Minimum level C (1 step ahead for all themes)
 - New initiatives (REMU 1 MW projekt)
 - Sustainable Urban Design
 - Three supervisors different visions



Evaluation: quality of living in Nieuwland

- Attractive neighbourhood
- Ecology positive for resident
 - But insufficient information:
 - by real estate agents on the buying moment
 - By municipality during use
 - Heating walls positive







Evaluation (quality of living)

- Sustainable Urban Design is base for
- Sustainable building is base for
- Sustainable living
 - Urban design attention for
 - Bicycle roads
 - Public transportation
 - Building surroundings
 - Houses and buildings
 - 1 MW project, PV



Evaluation (quality of living)

- Diminishing administration attention
 - National (less attention for Sustainable Building)
 - Kyoto is something else, no relation through scales
 - Local (Amersfoort)
 - (attention changed to Vathorst, nice and new)

Zur diskussion for discussion

lessons learned

Needed:

Interdisciplinary corperation

z.b. from 3 supervisors to 1 quality team
maximization method for urban plans

View on

building & sustainable development

[zurück](#)