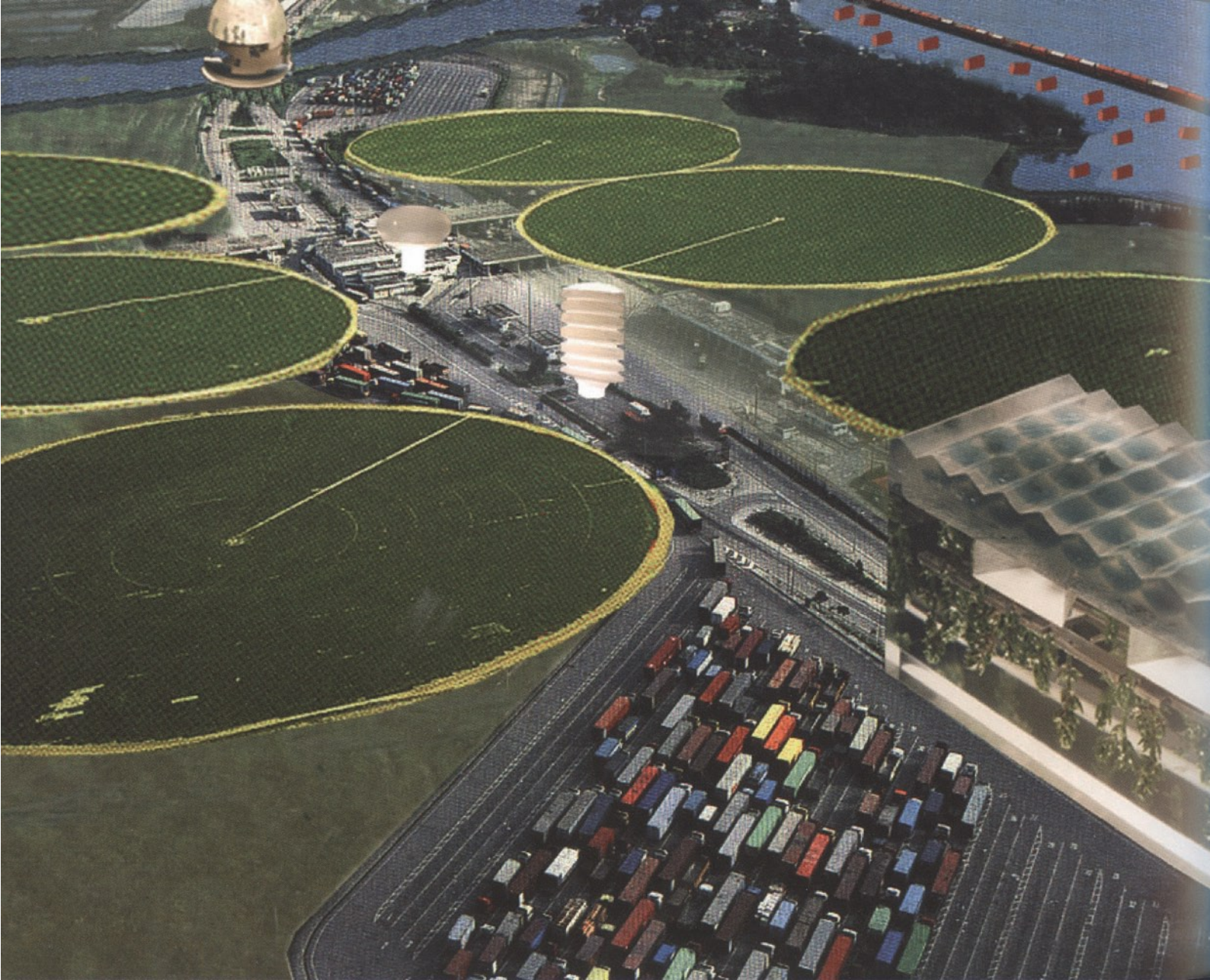




Autobahn und Natur



INFRA ECOLOGY

According to the statistics of the Central Bureau for Statistics (1988) infrastructure occupies 3% of the total surface area of the Netherlands. The regulations pertaining to the protection of the environment however, increase this area by a factor of ten to 30%, the spatial impact is therefore much greater than at first imagined. Because this 30% is subject to strict regulation, this area can only be utilized by a select number of programs. It would be interesting to imagine what kind of developments and programs would be possible if the different products of infrastructure did not function as a hindrance.

A number of questions can be formulated in this regard:

Is it imaginable that the role of infrastructure is revised in relation to urban development and natural balances?

What is the urban implication of a highly accessible area, though heavily taxed by hinder, into which three times built Holland fits?

What is the use of 12000 km² of open corridors, in which 800 of the 1400 indigenous flora and fauna types can be found?

What does 12000 km² of legislatively 'open' area mean for the pressure of urbanisation on designed emptiness such as the 'Green Heart'?

Is it possible to combine program, nature and infrastructure into an artificial ecology?

The ambition of this investigation about Infra Ecology is to make the hindered area of Holland accessible for every program. Not by building sound screens or introducing buffer zones, but by investigating the potential of hinder in the form of noise, emissions and vibration for the development of the area.

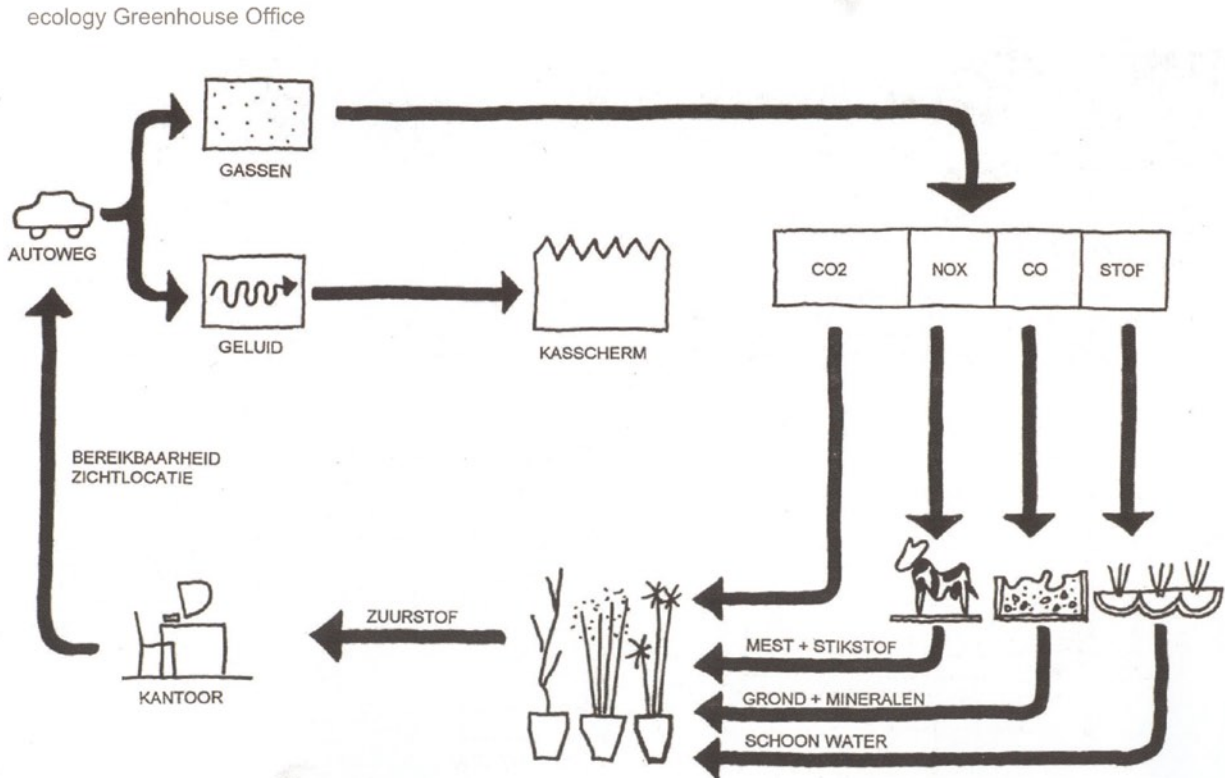
Infra Ecology is then also defined as obtaining a balance between infrastructure and hinder, and between landscape and program.

In an 'Ecology' different forms of hinder are altered through processes of spreading, concentration and absorption by production crops or landscapes. Programs such as living (Wave Circuit), working (Greenhouse Office and BP-Willow) and recreation (Spa-Spar) profit directly from the energy which is released, the production crops and the highly accessible location. The natural balance of an Infra Ecology is formed through designed selectors and processors which function on the scale of a building.

Quelle: Vortrag Duzan Doepel an der HfbK, 2003

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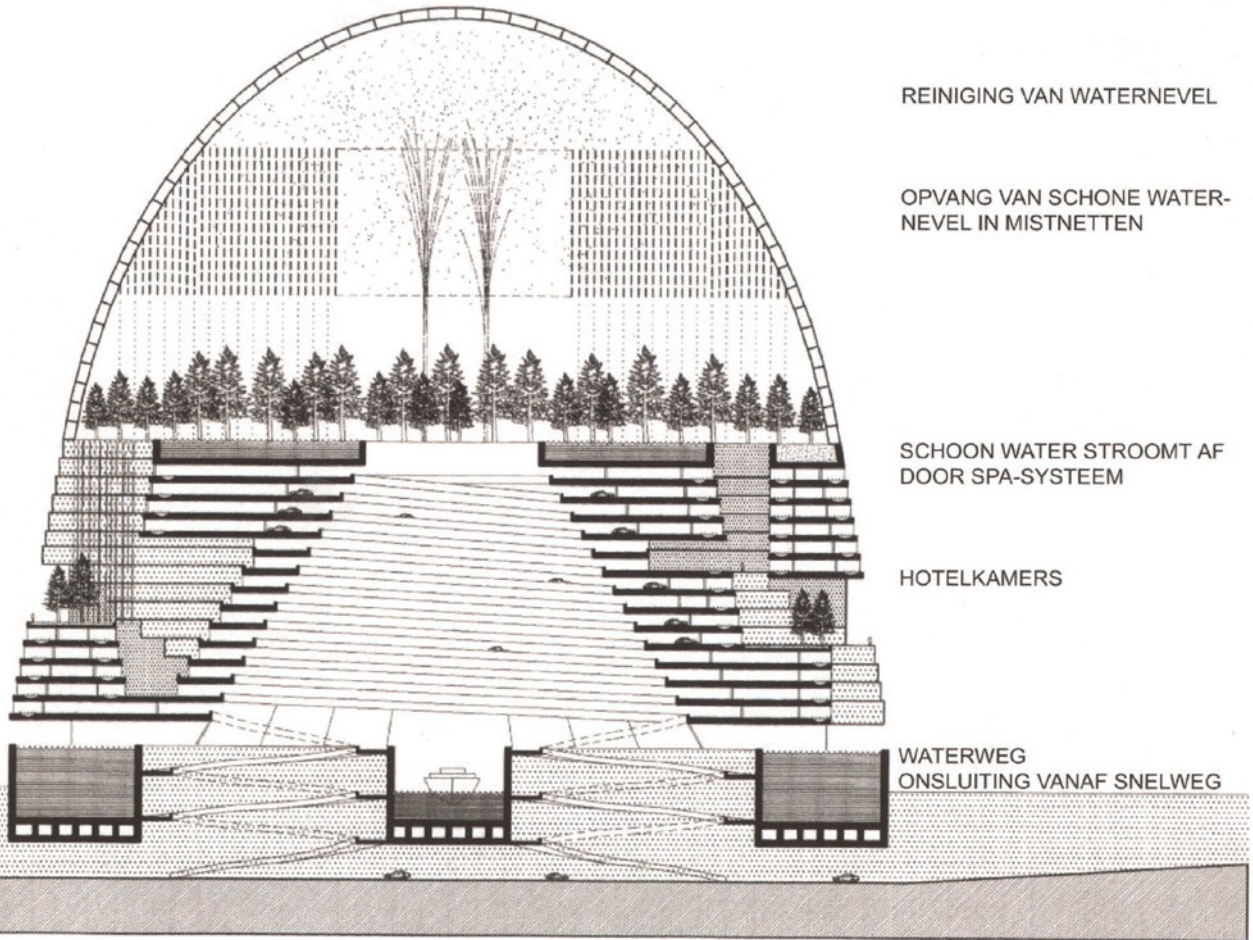
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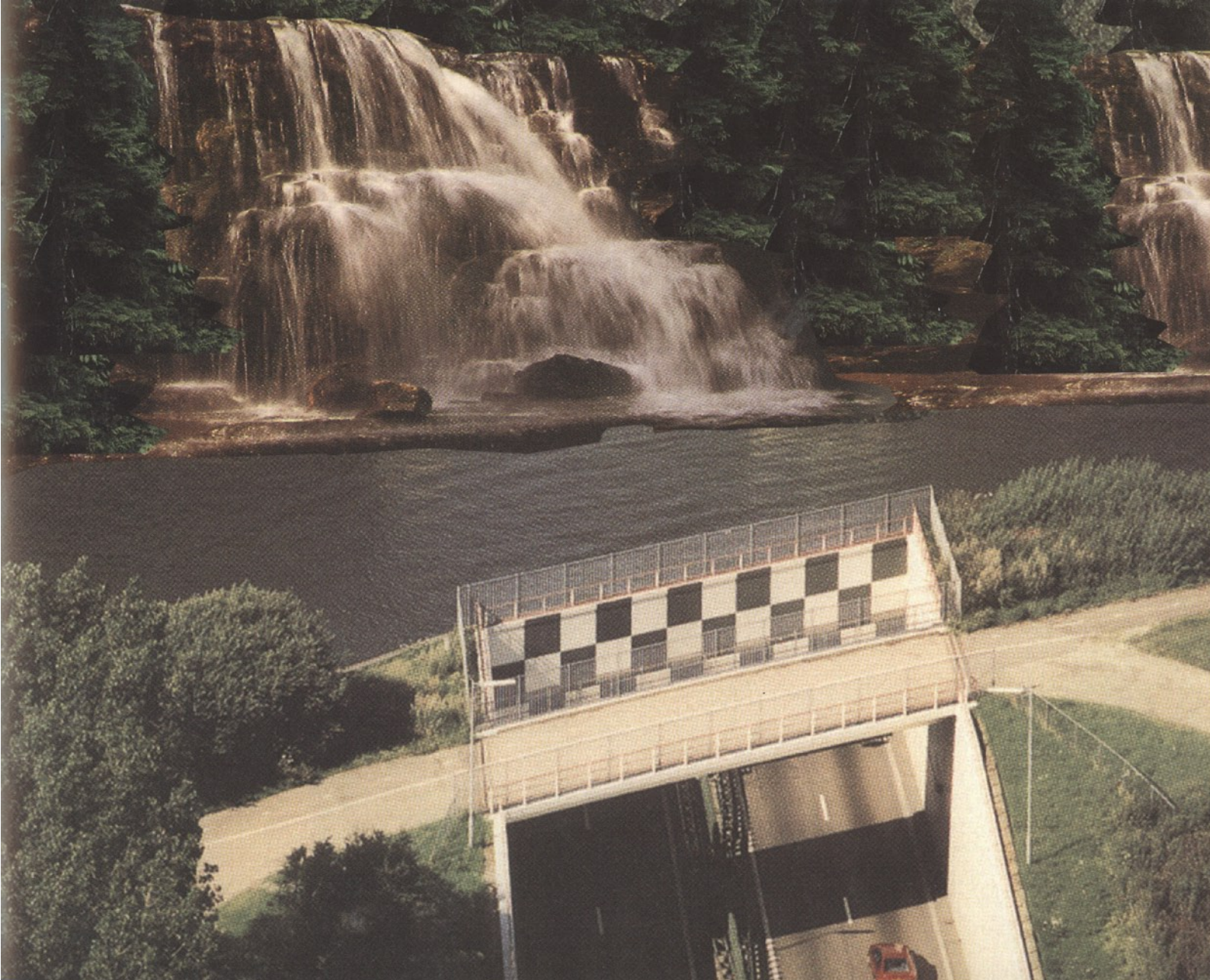


Spa-Spar

A motel chain on the crossing of a water- and a highway. On ten locations above highway and waterway crossings, recreation havens comprising of motel rooms with adjacent spa pools are envisaged.

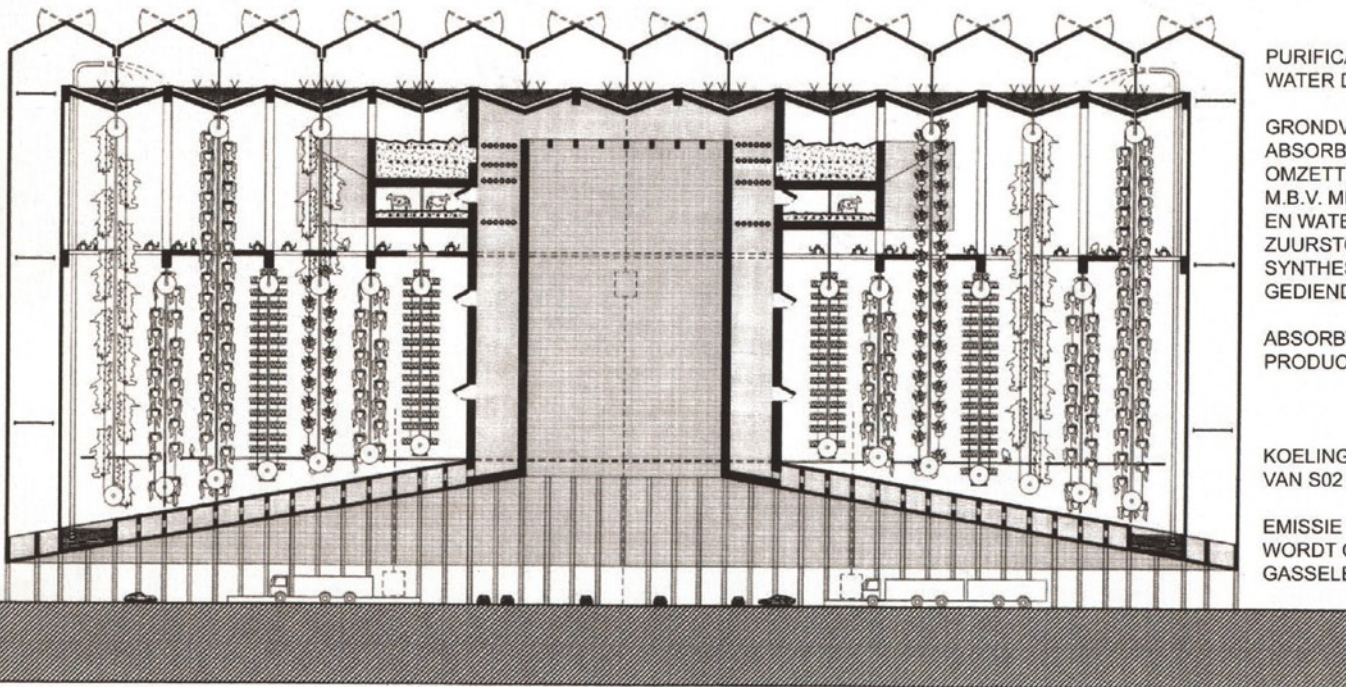
This typology is based on the water purification effect of ozone. Ozone is created during the reaction of nitrogen oxide from car exhausts with the fresh smell of pine trees.





Greenhouse Office

A combination of greenhouses and offices on and next to the highway. On an urban location, for example, office and greenhouse are combined and the highway vanishes from sight and sound. These greenhouses work as mediator between highway and office and ensure a clean, green and productive working climate. All the emissions of the highway traffic are filtered by the building and transformed into programs that favour the production of crops.



PURIFICATIE VAN REGEN-
WATER DOOR AQUASCAPING

GRONDVERIJKING DOOR
ABSORBTIE VAN CO2
OMZETTING VAN NOX
M.B.V. MEST(NH3) IN N2
EN WATER
ZUURSTOF UIT PHOTO-
SYNTHESE WORDT TOE-
GEDIEND AAN KANTOOR

ABSORBTIE VAN CO2 DOOR
PRODUCTIE GEWASSEN

KOELING DOOR OPNAME
VAN SO2 IN WATERDAMP

EMISSIE VAN AUTOWEG
WORDT OPGENOMEN DOOR
GASSELECTOR

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