

Unsealing of areas (Flächenentsiegelung)

Explanation of a project and legal basis in Bavaria
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Ground:breaking webinar 6 May 2024 by



Planning office STADT &
LAND since 1992

Urban planning and urban
design

Urban redevelopment

Residential and
commercial areas



Matthias and Constantin Rühl



The „Rathausplatz“ in Röttenbach

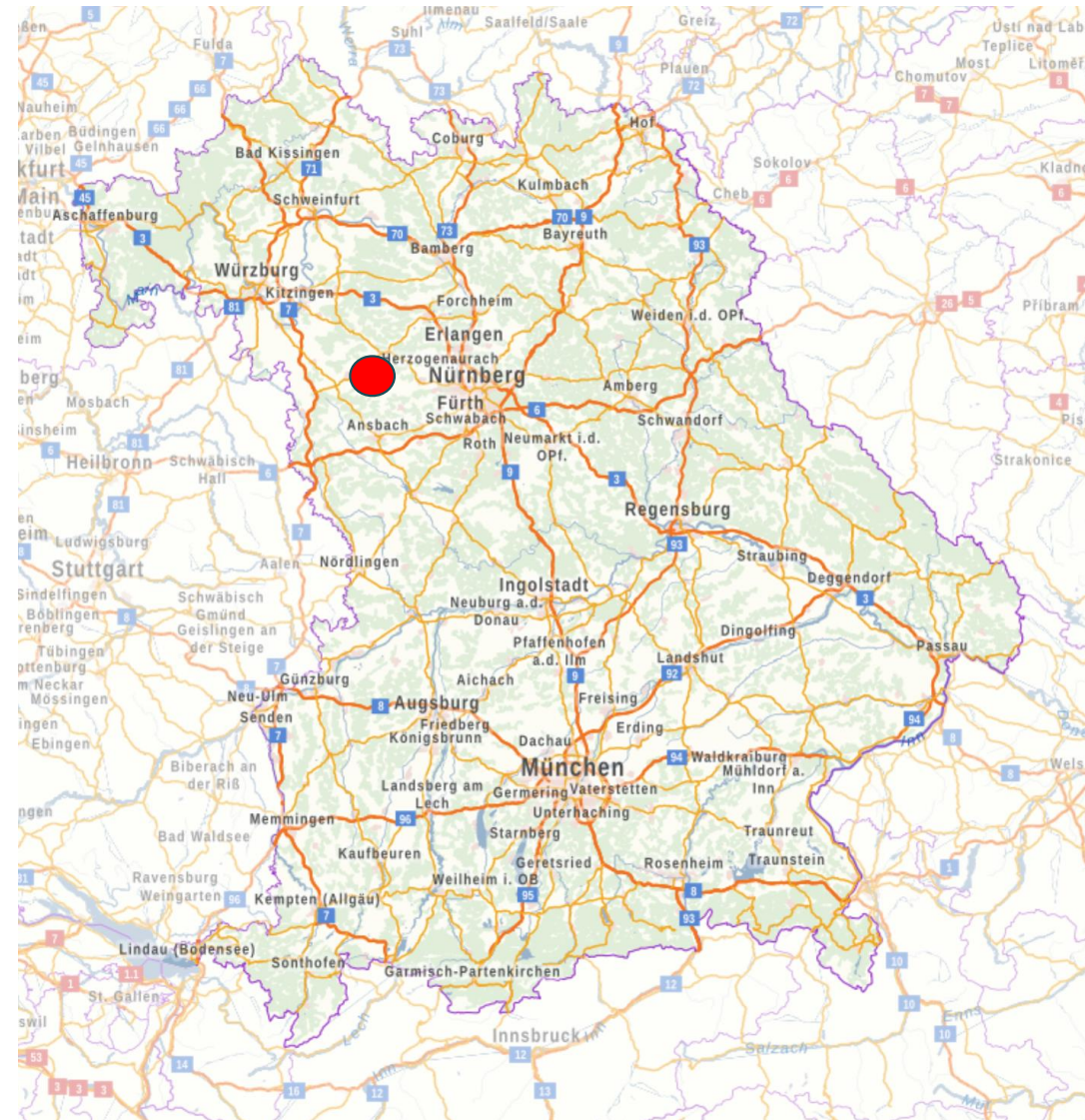


Content

1. Example of land unsealing in a rural area
2. How to avoid land sealing?
3. Is overbuilding of areas the real problem?

Unsealing of paved surfaces in Ipsheim

A village in Bavaria, comparable with villages in the Alpine region



- 2.200 inhabitants
- more than 25 years in a programme for renewing old cities and villages
- a touristic village with vineyards and wine taverns
- very rural region

before

An „ocean of asphalt“ 1998



1 Example of land unsealing in a rural area

after

Already realised:

Replace asphalt
with permeable
surfaces

A “normal” rainfall
up to 10 mm will
infiltrate and
evaporate



The new project is a new design of the „Schützenstraße“



1 Example of land unsealing in a rural area

recent situation, poor greening, heavily sealed

This area is to be redesigned with the following purposes

- Unsealing and greening
- Improving public space
- Better residential environment

The existing „Schützenstraße“ in Ipsheim
Totally sealed, unattractive, no quality of life



1 Example of land unsealing in a rural area

This area is to be redesigned with the following purposes

- Unsealing and greening
- Improving public space
- Better residential environment

recent situation, lot of damage at the asphalt surface, poorly walkable



1 Example of land unsealing in a rural area

Planning:

- Reduce the road space
- This creates space for green areas
- Use the third dimension for greening (trees)

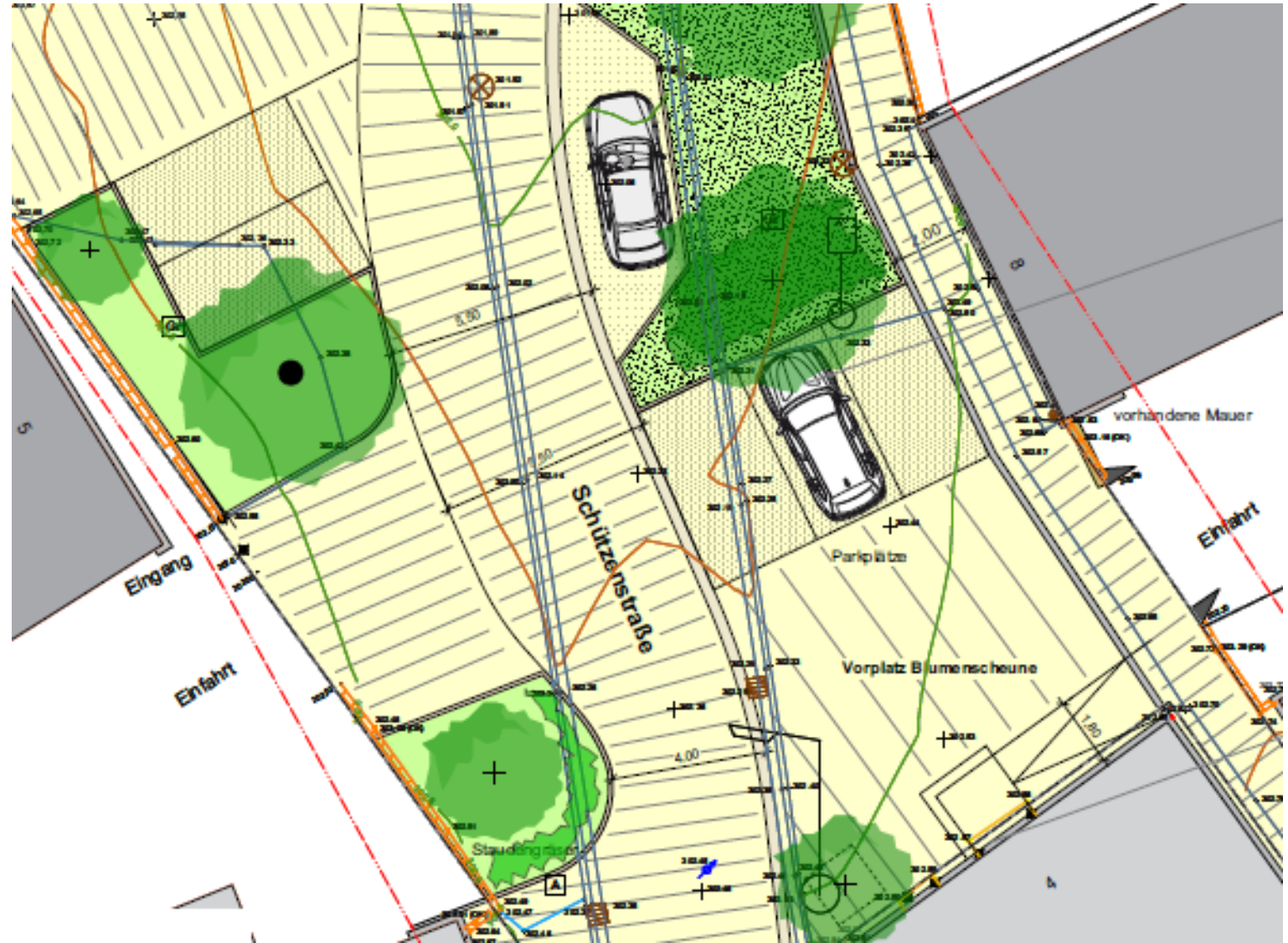


1 Example of land unsealing in a rural area

Car parks must be able to absorb water

The space between the stones is 30 mm

Pollution of water



1 Example of land unsealing in a rural area

Communication:

Very important to communicate with all residents

We have discussed with all residents and even performed a road test to get more greening



1 Example of land unsealing in a rural area



Overview of the funding pro- grammes of Germany and Bavaria

A special element in the
Bavarian programme is
„Flächenentsiegelung“

Schwerpunkte	Bund-Land-Programme			Bayerisches Programm		EU Struktur- förderung
	Lebendige Zentren	Sozialer Zusammen- halt	Wachstum und nachhaltige Erneuerung	Bay. Regelpro- gramm	BY Sonder- kontingente („Flächen schonen“)	EFRE IBW 2021-2027
Stärkung von Stadt- und Ortszentren					Innen statt außen	
baukulturelles Erbe						
Gesellschaftlicher Zusammenhalt					Leerstand nutzen – Lebensraum schaffen	
Demographischer Wandel						
Strukturwandel/ Brachen				Entsiegelung	Militärkonversion Industrie-/ Gewerbebrachen	
Klimaschutz/ Klimaanpassung				Entsiegelung	Klima wandel(t) Innenstadt	
Energieeffizienz					Klima wandel(t) Innenstadt	

Funding programme „Flächen- entsiegelung“

Promotion 80% up
to 90% of the
costs



Umgestaltung Graffiti-Areal zum Stadtgarten Rosenau, Altdorf

Förderziel

Funding purpose:

- Permanent unsealing
- Upgrading the public space
- Land recycling

Fördervoraussetzungen

Funding criterias:

- Urban development concept
- Inner-city location
- usually in an urban renewal area



What can be done in this programme:

Complete unsealing

Changing of surfaces to improve infiltration capacity

Greening measures

Plannings, concepts, reports ...

Förderfähige Vorhaben

- Vollständige Entsiegelung befestigter Flächen
- Wechsel von Bodenbelägen zur Verbesserung der Versickerungsfähigkeit
- Maßnahmen der Begrünung
- Ordnungsmaßnahmen auf Grundstücken mit brachgefallenem Gebäudebestand
- Freilegung brachliegender Flächen (kein Abbruch von Baudenkmalern)
- Konzepte, Planungen, Gutachten
- Grunderwerbe (nur in Zusammenhang mit Bau- oder Ordnungsmaßnahmen)

Fördersatz

- 60 % der förderfähigen Ausgaben (Aufstockung auf 80 % möglich; 90 % bei Finanz- und Strukturschwäche)

2. How to avoid land sealing?

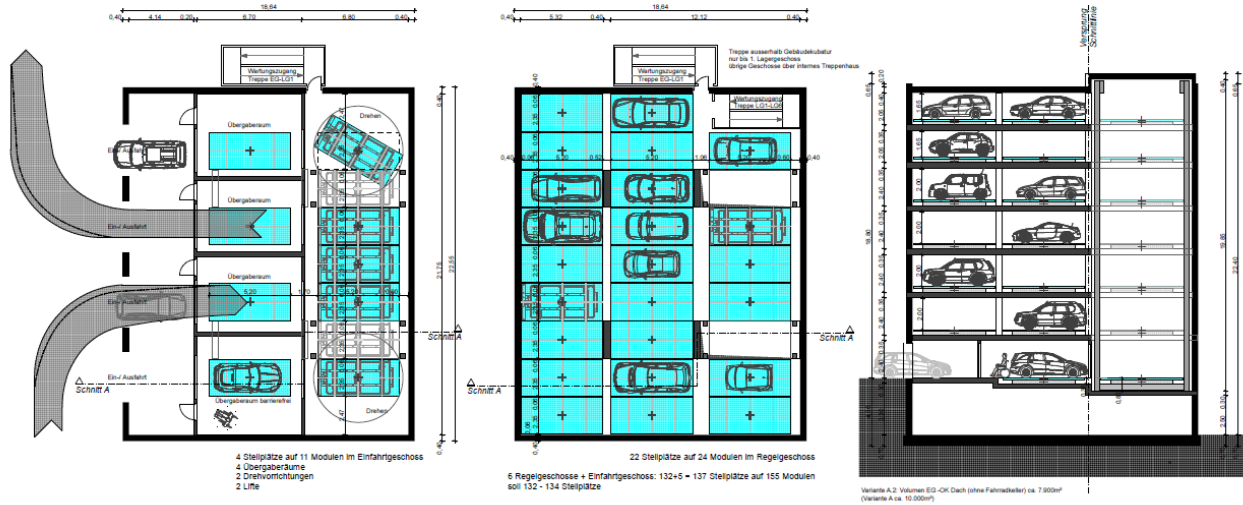
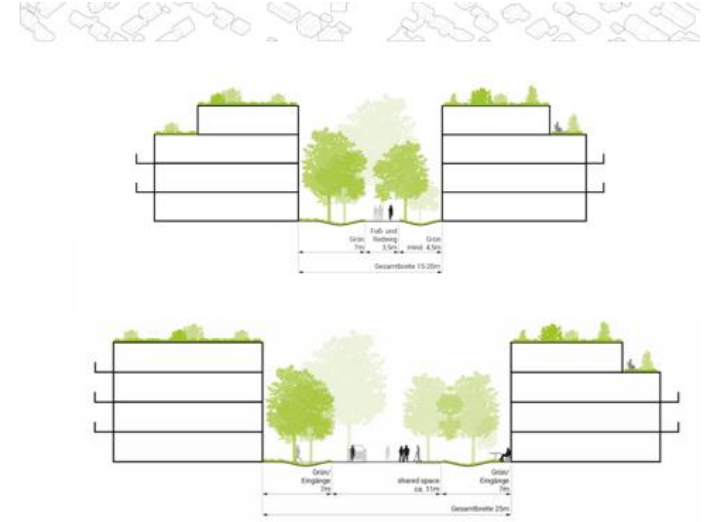
- First of all: What do you really need? Not, what has always been done
→ **we need to learn to use our space more efficiently**
→ **ground is a finite resource**
- Example: Do you need a street? Could it be a cycle path?
When it is necessary, could it be water-bound?
- Example residential area: Is there really a need for single family homes? Apartment houses might be more suitable
- Example commercial areas: They can be planned with two or three floors

2. How to avoid land sealing?

Efficient use of land by using vertical space.

Two Examples:

- Buildings with several levels
- Car parking in an automated system



2 Ho to avoid land sealing?

3. Food for Thought

Has unsealing effects on groundwater recovery?

- Approximately only 10 % of our territory is completely sealed and unsealing of small areas has no significant effect on groundwater recovery
- Sealed surfaces in cities are not the real problem of groundwater
- Industrial agriculture reduces massively the absorption of water:
 - heavy machines
 - less humus
 - less micro organisms in the soil
 - etc.
- This is why floods like the one in the Ahr-Valley in 2021 are getting worse
- The water came out of the fields and the vineyards, not from the village
- Think about pollution of water



3. Is overbuilding of areas the real problem?

3. Take away message

- Unsealing in cities for improving micro-climate, and wellbeing of humans, animals and plants
- But it does not improve the situation of the groundwater.
- The recovery of groundwater should take place in the agriculture areas (46,1 %) and in the forests (35,3%)

https://www.statistik.bayern.de/mam/produkte/statistik_kommunal/2023/09.pdf

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- Quality of groundwater is essential in the future

Thank you for your attention

Questions?

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