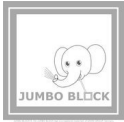


A high-speed photograph of water splashing, creating a dynamic and textured background of white and light blue water droplets and bubbles. The water is captured in mid-air, with some droplets appearing to be falling or rising, creating a sense of movement and freshness.

# JUMBO BLOCK® Presentation

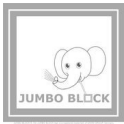
Solutions for a resilient water supply

07/2024



JUMBO BLOCK ® is comparable to in-situ concrete.

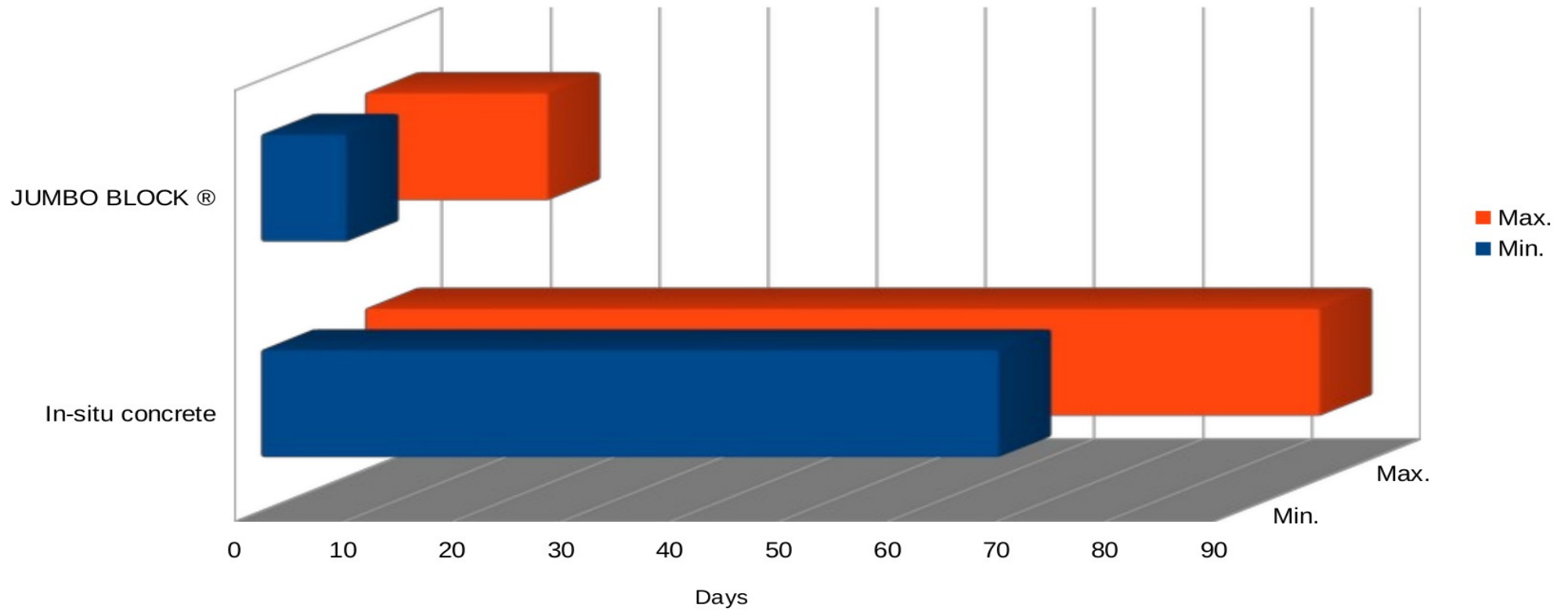
- Reinforced concrete !
- High load capacity!
- High resilience !
- Longevity !



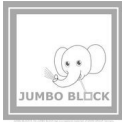
# TIME SAVINGS

## CONSTRUCTION TIME IN-SITU CONCRETE VS JUMBO BLOCK ®

Comparable water storage 1362 m<sup>3</sup> / 98 JUMBO BLOCK ®



Example from a project



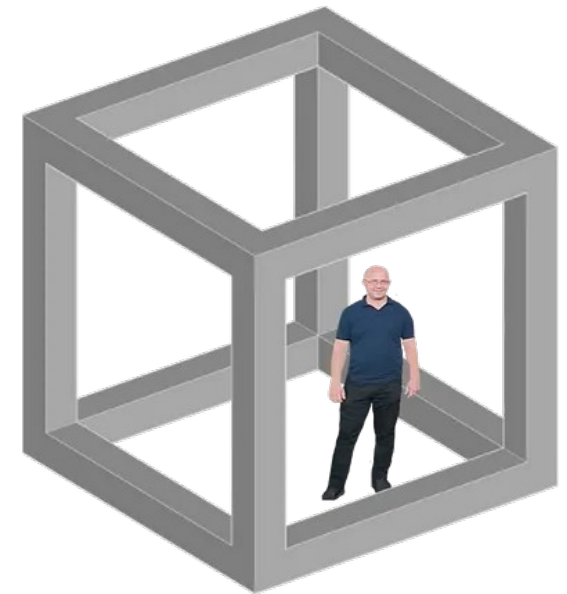
# THE JUMBO BLOCK ®

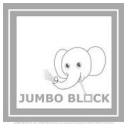
## Metrics

- Load capacity SLW 60
- Block edge length  
2.5 m x 2.5 m x 2.5 m
- Material  
Mainly green concrete  
(CO<sub>2</sub>-reduced concrete)
- Capacity  
13.9 m<sup>3</sup> of water/block
- Volume on area  
2,224 litres/m<sup>2</sup> water  
column

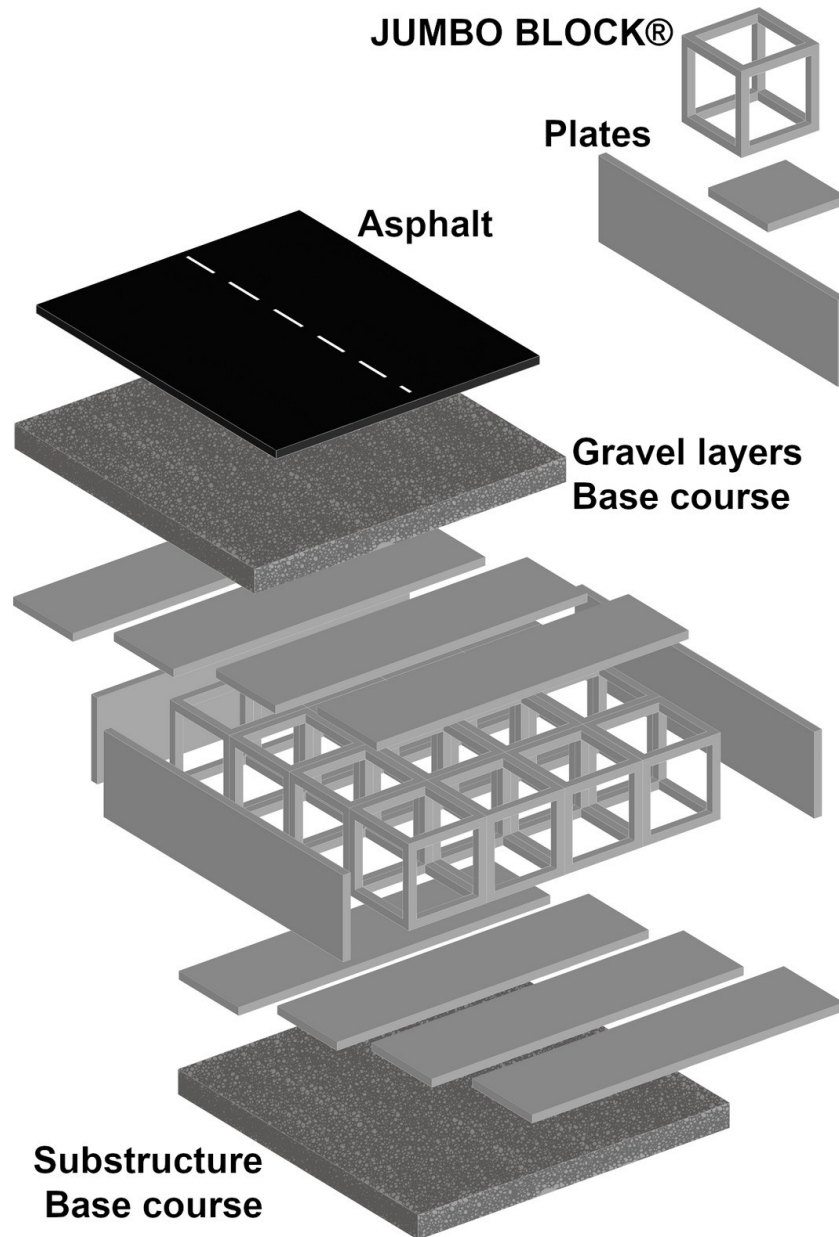


Mold making Metal Synergy doo





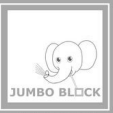
# MODULAR CONSTRUCTION



## JUMBO BLOCK ® Installation example

- Asphalt surface
- Gravel layers (base course)
- JUMBO BLOCK ® hollow block
- Plates for sealing (min. 2.5 x 2.5 m)
  
- In case of water storage plates at the bottom
- For water storage waterproofing, geobuilding materials or foils for water-polluting substances
- In case of infiltration no sealing and open soil

Over 4 tonnes stability



ERSTELLT DURCH:

**IBS GmbH & Co. KG**  
Kemnader Straße 320, 44797 BOCHUM  
Tel: 0234/5884929-0 - Fax: 0234/5884929-8

INGENIEURGESELLSCHAFT  
UND STATIKER FÜR  
STATISCHE NACHWEISE  
JUMBO BLOCK ®

Informationen für die Projektplanung

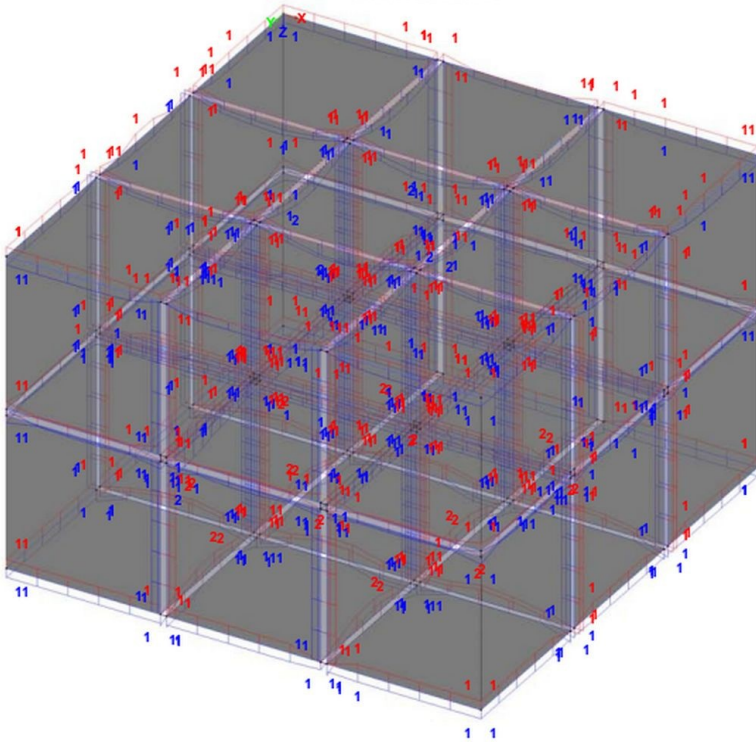
Planung: **IBN Ingenieurbüro Ralf Neuhaus, Viersen**

Position: **JUMBO BLOCK ® System mit 18 + Blöcken**

Ausführung: **CONTA ProNat Bauconsult GmbH, Recklinghausen**

RF-BETON STÄBE - STÄBE , FA1 \_ BEWEHRUNG DER STÄBE

LASTFALL SLW 60



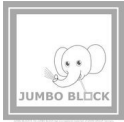
## Impressive project references

### Frankfurt, Germany

- West Side Tower
- Henning Tower
- Residential development  
Stresemannallee

### Offenbach, Germany

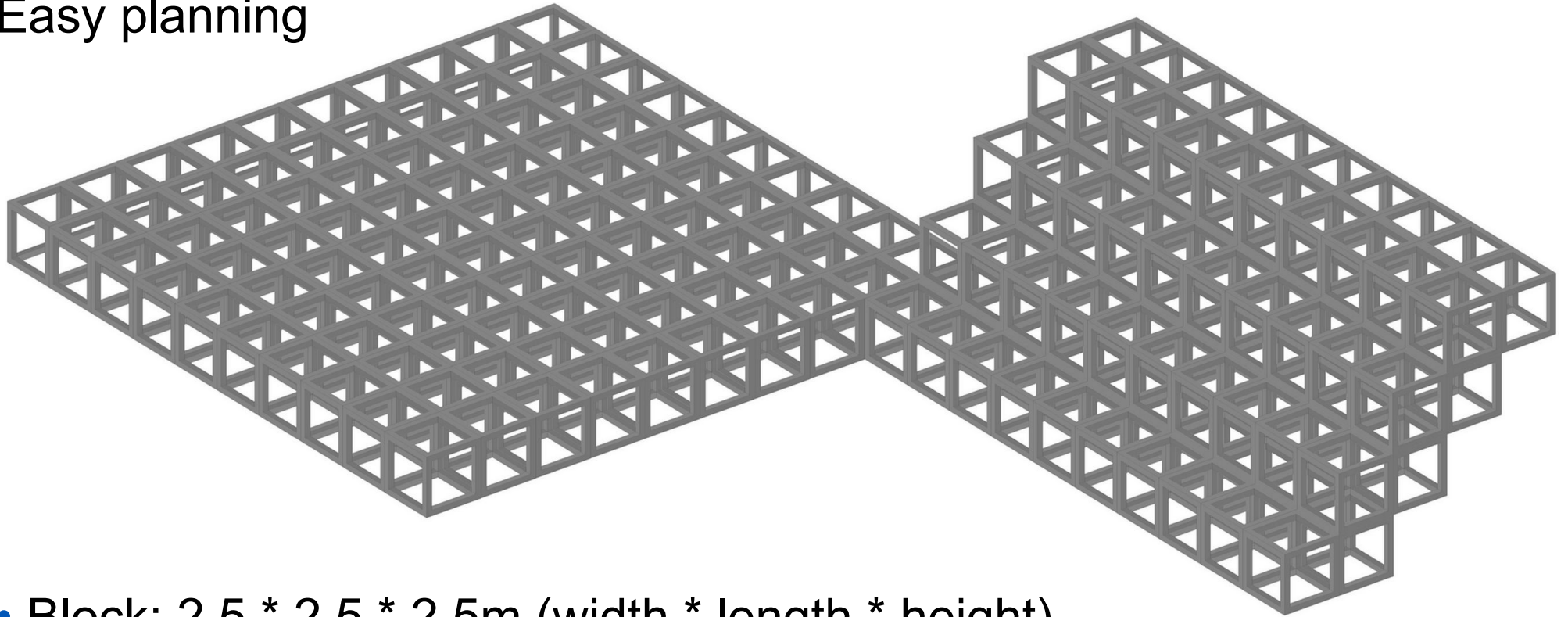
- Hafengold residential  
development



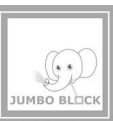
# FLEXIBLE SOLUTIONS

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## Easy planning



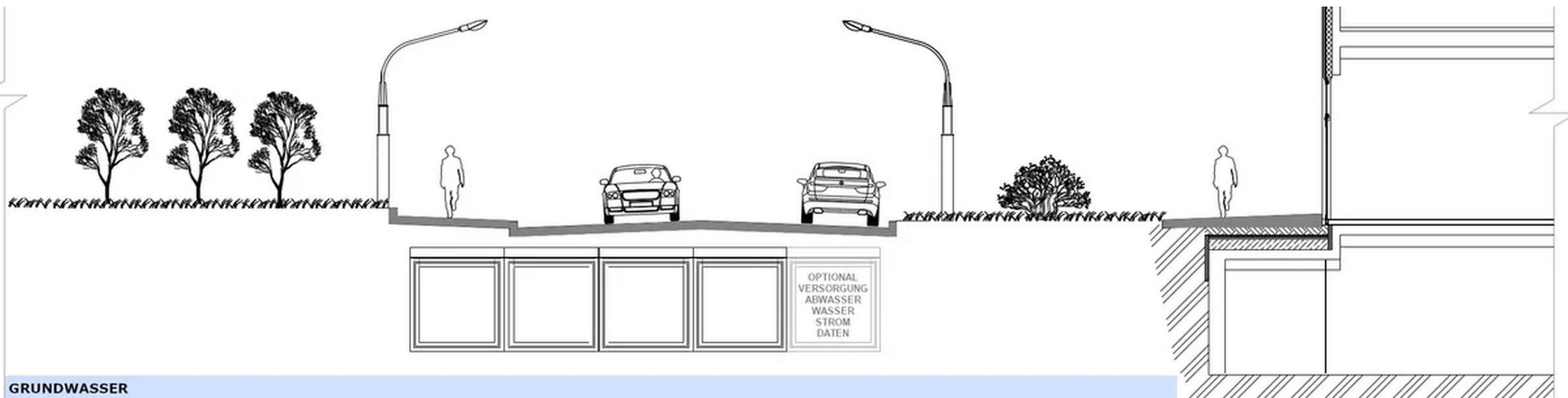
- Block: 2.5 \* 2.5 \* 2.5m (width \* length \* height)
- Plates: 2.5 \* 2.5 - 10.0 \* 0.125 - 0.25m (width \* length \* thickness)



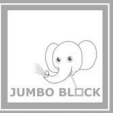
# MUNICIPAL OPPORTUNITIES

## Planning freedom

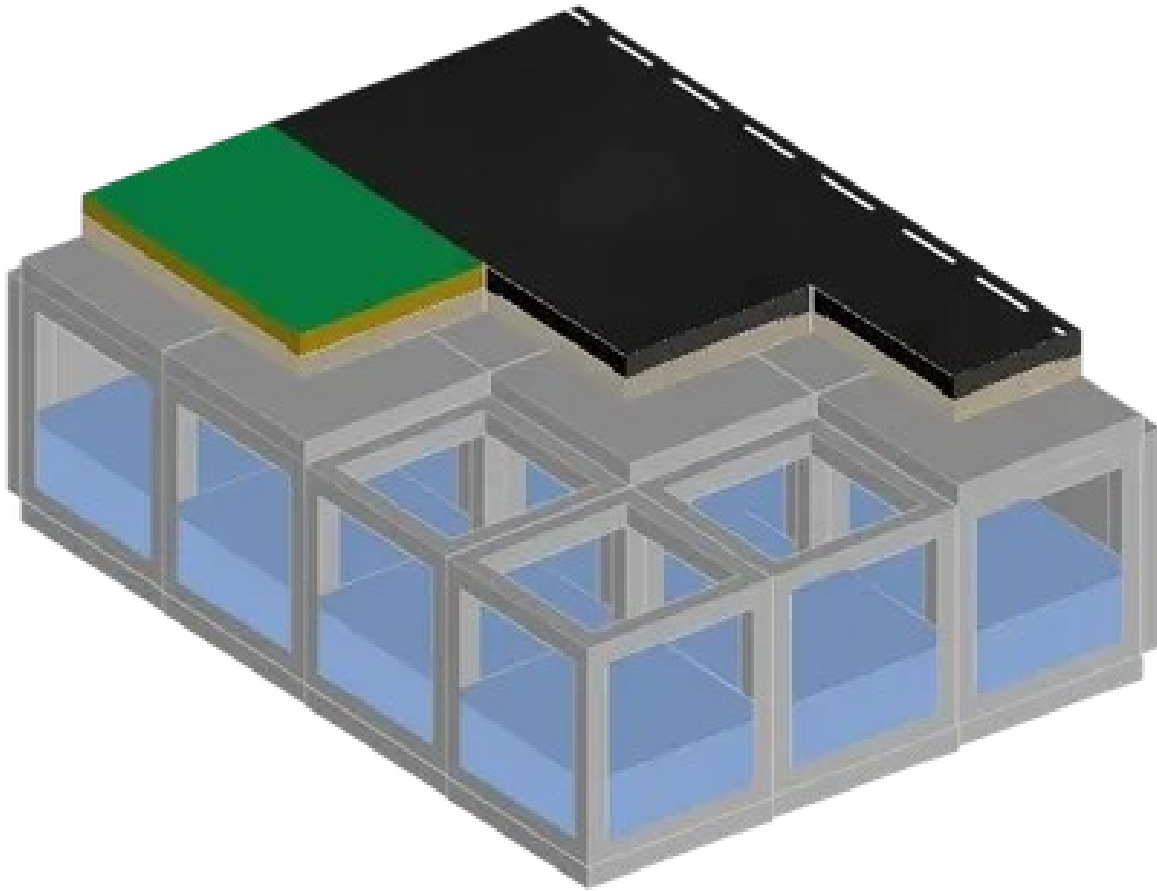
- Can be built over and is roadworthy
- Up to 80% reduction in construction time
- Reduces road works
- Installation of sewerage, supply lines, etc.







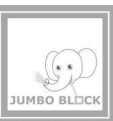
# COMMUNITIES



## Rainwater retention Inner-city retention

- Under streets
- Under squares
- Under buildings
- under open spaces
- ...





# RETENTION SPACE DESPITE DEVELOPMENT



## FLOOD PROTECTION THROUGH RETENTION

Prevention of flooding

Planning area: 55 x 65 m  
Building area: 2 x 326.6 m<sup>2</sup>  
Lanes: 2 x 4.5 m, 4 x 3.75 m

Substructure of the road  
48 Jumbo Block Standard (13.9 m<sup>3</sup>/block)  
116 Jumbo Block XL (27.6 m<sup>3</sup>/block)  
82 heavy duty plates  
seal

Available retention volume: 3868.8 m<sup>3</sup>  
Expandable

Flood height: 0.0 m



## FLOODING WITHOUT RETENTION

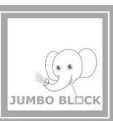
Planning area: 55 x 65 m  
Building area: 2 x 326.6 m<sup>2</sup>  
Lanes: 2 x 4.5 m, 4 x 3.75 m

Available retention volume: 0 m<sup>3</sup>

Flood height with comparable volume: 1.02 m

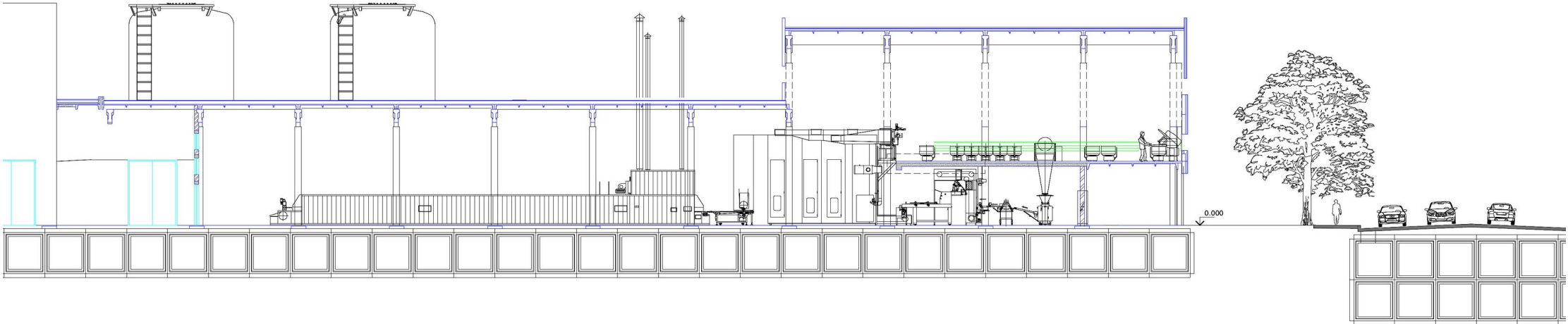


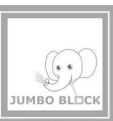
Movie: [YouTube](#)



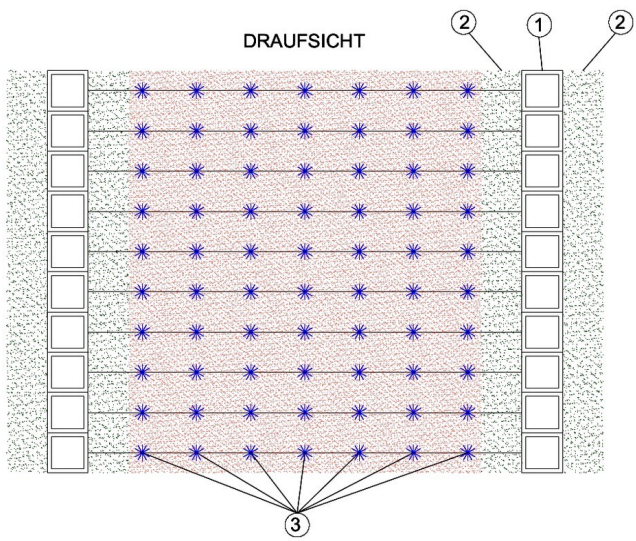
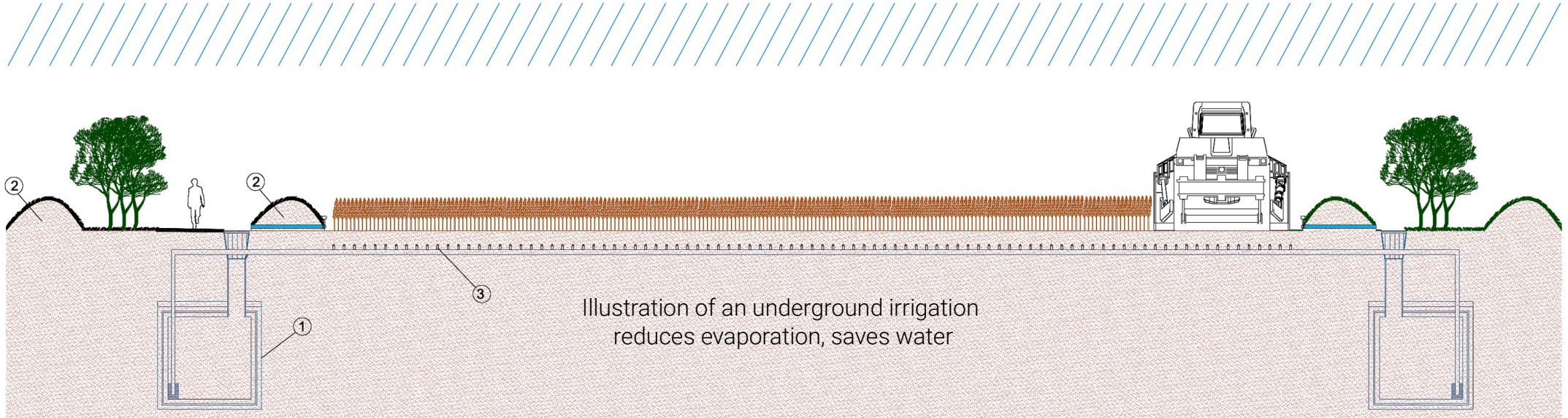
# INDUSTRIAL AND CHEMICAL PLANTS

## Fire water storage, Infiltration and water storage





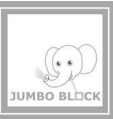
# AGRICULTURAL OPPORTUNITIES



Solution to soil erosion  
and water scarcity

Example in the form of underground irrigation.

Any form of withdrawal  
and distribution is possible!

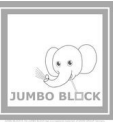


## Water level data and IoT with IOTA technology



1. Water level monitoring
2. Data Analysis and forecasts
3. Automated control
4. Intelligent maintenance
5. Transparency and trust
6. Benefits for municipalities and infrastructure operators

Transmission, for example via Long Range Wide Area Network (LoRaWAN)

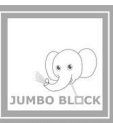


# ENVIRONMENTAL AND NATURE PROTECTION

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- Sustainable material usage through recycling and reuse
- Environmentally friendly recyclability
- CO2-reduced green concrete
- Avoidance of plastics
- Protection of the soil ecosystem
- Preference for environmentally friendly geosynthetic sealants
- Energy-saving IoT systems
- Up to 80% reduction in construction time
- Long life cycle



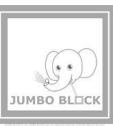
# ENVIRONMENTAL AND NATURE PROTECTION

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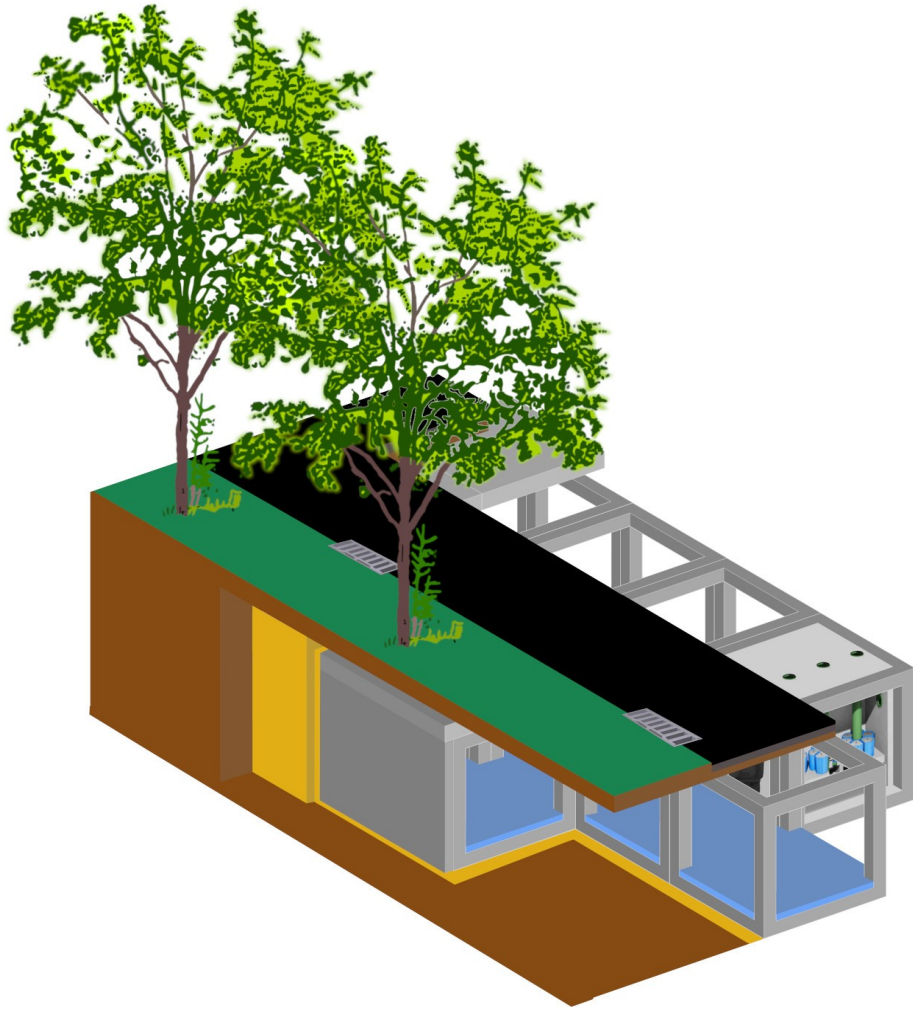
## ADAPTATION TO CLIMATE CHANGE

- Rainwater retention
- Water storage, and infiltration
- Reduction and avoidance of surface sealing
- Increase in groundwater level
- Irrigation and emergency watering of sensitive ecosystems



# JUMBO BLOCK ® ADVANTAGES

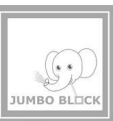
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## Prevent water scarcity and flooding!

- Freely configurable
- Easy and quick to install
- Up to 80% reduction in construction time
- Environmentally friendly
- Recyclable, reusable
- High life cycle
- Sealing with geoconstruction materials
- Inexpensive






Thank you for your attention.

It has been a great pleasure for us to share this presentation with you.

We hope you enjoyed it.

A background image of a water splash, with a horizontal blue line across the middle.

## Imprint

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