



Country /City
University / School
Academic year
Title of the project
Authors

Germany, Gelsenkirchen-Ückendorf
RWTH Aachen University, Institute of Landscape Architecture
Summer 2022
Green-blue streets: resource-hub Ückendorf
Lailly Vaz de Miranda, Marcus Hoffmann

TECHNICAL DOSSIER

Title of the project	Green-blue streets: resource-hub Ückendorf
Authors	Lailly Vaz de Miranda, Marcus Hoffmann
Title of the course	Design studio "Green-blue streets" (1 semester, 15 ECTS)
Academic year	Summer 2022
Teaching Staff	Dr.-Ing. Axel Timpe (LA), Dipl.-Ing. Sebastian Schlecht (LA), Dr.-Ing. Andreas Witte (ISB)
Department / Section / Program of belonging	Institute of Landscape Architecture (LA) in cooperation with Institute of Urban and Transport Planning (ISB), M. Sc. in Architecture, M.Sc. in Urban Planning, M.Sc. in Transport Engineering and Mobility
University / School	RWTH Aachen University, Institute of Landscape Architecture



Written statement, short description of the project in English, no more than 250 words

Ückendorf is a neglected urban area in the post-industrial city of Gelsenkirchen and is frequently confronted with stormwater events flooding streets and basements in the area. Resource-hub Ückendorf proposes to regenerate the area by improving the existing streets, a close-by park and a WW II bunker and by creating new public spaces allowing to manage stormwater, storing water and thermal energy in the bunker transformed to a resource hub and improving the quality of life in the area. Based on the orographic analysis of the area the project proposes a green-blue masterplan distributing and guiding stormwater in a cascade of retention and infiltration areas in private and public space and using the park as a storage for the remaining overshoot. While being usable as pocket parks or playgrounds in dry periods, the redesigned public spaces can be filled with water during storm events. The historic WW II bunker with its thick walls will be transformed to store rainwater for service water use. A large water tank will as well serve as thermal storage connected with a local heating system to be developed.

While the redesigned main road of the area, Bochumer Straße will accommodate rainwater, the existing tramway and the car traffic also in the future, Stephanstraße with the local elementary school can be redesigned integrating bioswales as a main connection between the urban area and the park.

For further information

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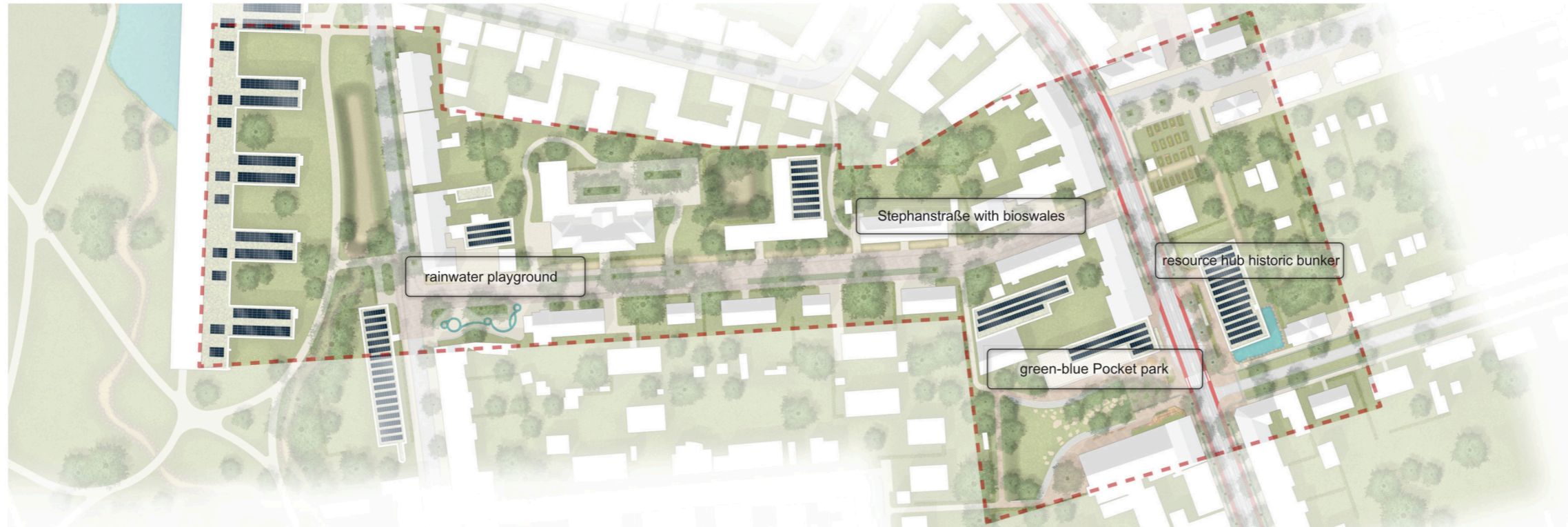
SCHOOL PRIZE

Masterplan water-sensitive Ückendorf

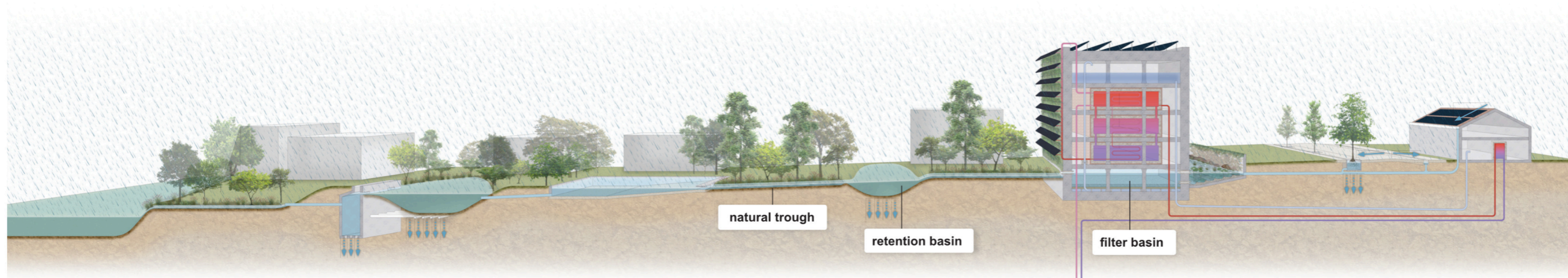


-  Underground storm water drain
-  open box gutter
-  Retention basin
-  Water Square
-  Bioswale / Natural stormwater ditch
-  Roof area with cistern connection
-  Cistern

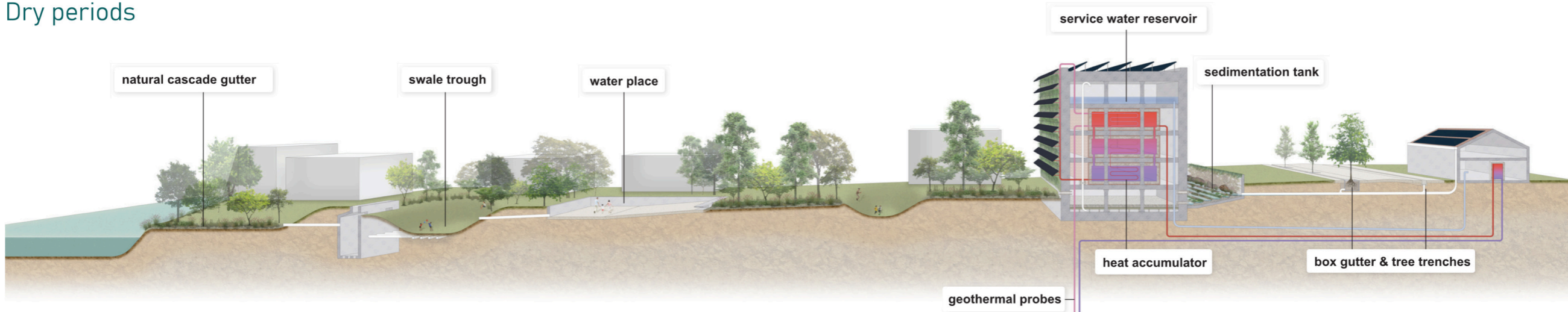




Stormwater event



Dry periods



Green-blue pocket park



Stephanstraße with bioswale

