

CONVERSION OF ROHANSKÉ NÁBŘEŽÍ - LIFE BY THE RIVER
_DIPLOMA PROJECT _KRISTÝNA SEDLÁKOVÁ _HENRY HANSON'S STUDIO
_DEPARTMENT OF SPATIAL PLANNING _FA ČVUT 2011-2012



AK KŘEŠKOVÁ
1877
29-09-2011

jméno a příjmení: **Sedláková Kristýna**
datum narození: **10.1. 1986**
akademický rok / semestr: **Zimní Semestr, 2011/12**
ústav: **Prostorového Plánování**
vedoucí diplomové práce: **Henry W. A. Hanson IV, RA, RLA, LEED AP**

téma diplomové práce:

viz přihláška na DP

Přeměna Rohanského nábřeží – Život u řeky

zadání diplomové práce:

Project Definition / Purpose, Goals, Strategies

The Karlin district of Prague has recently seen rapid change, particularly since the flood of 2002. These changes are cumulative and in the framework of previously existing and new transportation infrastructure. This project seeks to balance and unify the different components of the surroundings and propose a new development between the river and the existing neighborhood. Fundamental to this proposal are considerations of sustainability.

Main Goals

1. Eliminate or mitigate barriers in urban fabric
2. Open public access to the riverfront as a social and environmental amenity
3. Create a new mixed-use, friendly community with enough housing to be a high quality, functional, and sustainable neighborhood that advances the sustainable condition of the area and its surroundings
4. Restoring and protecting landscape and natural systems
5. Create a riverfront identity that represents a good address in the city

Expected final resolution

1. Context Analysis showing the effect of the proposal at a minimum scale of 1:5000
2. Site development proposal showing existing urban fabric, proposed new construction, revitalized public spaces at a scale of 1:500
3. Sections (minimum of 3) showing the relationship of proposed new development to existing buildings and public spaces at a minimum scale of 1:200.
4. Floor plans, all floors, at a minimum scale of 1:200.
5. Minimum of 3 visualizations from ground level describing the relationship of public spaces to the existing and proposed buildings.
6. Aerial visualization of the proposed development including immediate surroundings.
7. Physical model at a minimum scale of 1:1000 showing the proposed new construction and surrounding buildings and public spaces.
8. Note: All of the above, except context analysis, shall be populated illustrating the way in which the proposal is expected to perform.
9. Diagram(s) of intended urban occupancy
10. Diagram(s) of intended urban ecosystem(s).

Datum a podpis studenta

25.9.2011 *Sedláková*

Datum a podpis vedoucího DP

29.9.11 *[Signature]*

Datum a podpis děkana FA ČVUT

29.9.11 *[Signature]*

registrováno studijním oddělením dne

* *prostor úzkou řeky*

jméno a příjmení: **Kristýna Sedláková**
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zadání diplomové práce:

Definice projektu / účel, cíle, strategie

V pražském Karlíně došlo v poslední době k mnoha změnám, zejména po povodni v roce 2002. Tyto změny jsou komplexní, v rámci již existující i nově vznikající dopravní infrastruktury. Tento projekt se snaží docílit rovnováhy a konečného sjednocení jednotlivých složek prostředí a navrhnout nový vývoj mezi řekou a stávajícím okolím. Základem návrhu jsou aspekty trvale udržitelného rozvoje.

Hlavní cíle

1. Překonání, popř. omezení bariér v urbánní struktuře
2. Podpora volného veřejného přístupu k řece, propojení s řekou jako se zásadní společenskou a přírodní hodnotou
3. Vytvoření nové polyfunkční, přátelské urbánní struktury s dostatkem bytových jednotek, která bude pro uživatele kvalitním, funkčním sousedstvím a zároveň bude respektovat pravidla udržitelného rozvoje
4. Reorganizace a ochrana krajiny a přírodních systémů
5. Vytvoření reprezentativní struktury u řeky - struktury vhodné pro toto místo

Očekávané závěrečné výstupy práce

1. Mapa širších vztahů, která ukazuje vliv návrhu na okolí, min. měřítko 1:5000
2. Situace, úřaz na prezentaci oživení veřejných prostranství, měřítko 1:500
3. Řezy (minimálně 3), zaměření na prezentaci vztahu mezi návrhem a existující zástavbou a veřejným prostorem, min. měřítko 1:200
4. Pudorysy všech podlaží, min. měřítko 1:200
5. Min. 3 vizualizace z úrovně chodce popisující vztah veřejných prostranství a navrhovaných i stávajících budov
6. Ptačí vizualizace návrhu včetně nejbližšího okolí
7. Fyzický model návrhu a přilehlého okolí, min. měřítko 1:1000
8. Pozn.: Všechny výše uvedené výstupy, s výjimkou mapy širších vztahů, musí co nejjasněji prezentovat a definovat návrh, jeho podstatu
9. Diagram(y) míry a způsobu užívání navrhované struktury
10. Diagram(y) funkce ekosystémů v navrhované struktuře

Datum a podpis studenta

Datum a podpis vedoucího DP

Datum a podpis děkana FA ČVUT

registrováno studijním oddělením dne

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DESIGN I

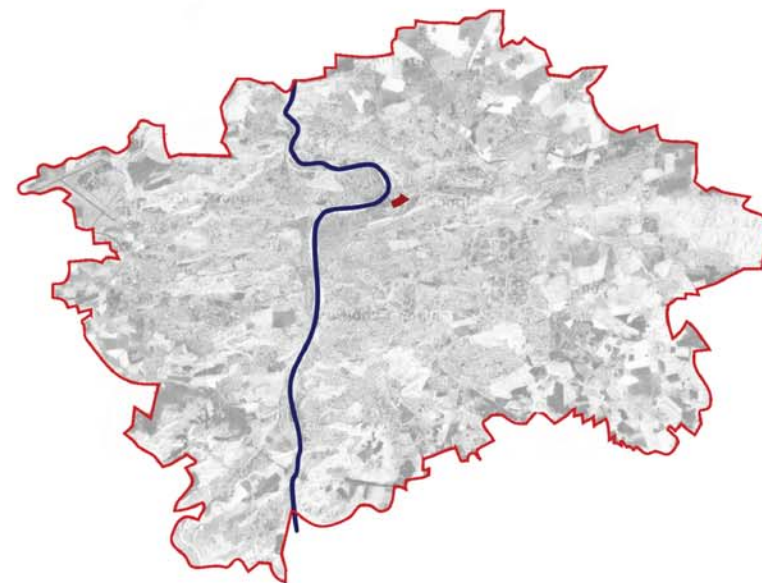
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REFERENCES

<http://www.zastarouprahu.cz/vestnik/3-2010/obalka310.pdf>
http://www.fabriky.cz/2007_rustonka/index.htm
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<http://www.praha.czso.cz/>





INVENTORY

HISTORY OF ROHAN ISLAND AND MANINY

The area, which is now called Rohan Island, is not the original island of that name, nor the island itself anymore. It is a large part of the Karlín bank, which, after decades when laying without any meaningful use, became the territory of the interest of developers.

Four islands alongside the Karlín bank were formed from flood deposits. The shores of islands were enforced in the 17th and 18th century and their area was used for various economic activities, primary to operate mills. The islands have their owners, according to which were called. Rohan Island was named after the owner Josef Rohan, master carpenter, who owned the island in 1850. The island is also known as Köpplöv according to the previous owner. Rohan Island touched Jerusalem Island in the west of the island, named after Leopold Jerusalem, who was using the island in the first half of the 19th century as a bleach. Both islands, Jerusalem and Rohan, called for simplification by the name of the second of them, were used after 1870 by Northwest Railway Austrian company as a railway corridor between Těšnov and Karlín, but also for their support and later for a freight yard. Between Rohan Island and Karlín, the Karlín harbor was in operation since 1822.

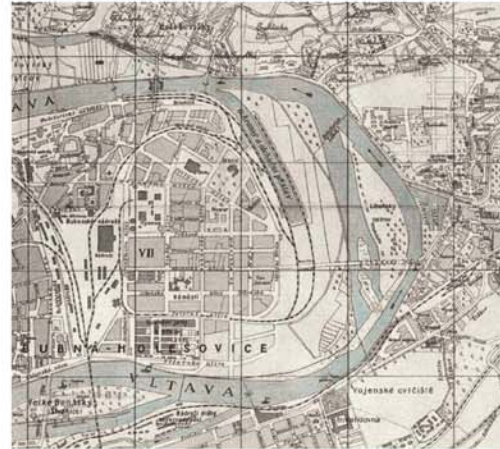
The major change for Karlín was the generous regulation of the bed of the Vltava in 1923-1929, the main city harbor was due to better navigability, shortening routes and faster flow rate translated to Holešovice and partly to Libeň. The Karlín harbor was canceled. The freight yard on Rohan Island lost its function after the establishment of the central cargo station in Žižkov as well. Railway company left finally the area in the mid eighties.

An extensive area of river floodplain called Maniny that originally belonged to Holešovice has been partly taken over by the new trough, and partly connected with Rohan Island during the regulation. Rohan Island lost the river touch in the northeast and was associated with Libeň Island and Libeň itself by drying the old riverbed. The river arm, where the Karlín harbor was originally operated, was retained as a water trough clutch after the transfer. It was completely covered in the mid-fifties of the 20th century.

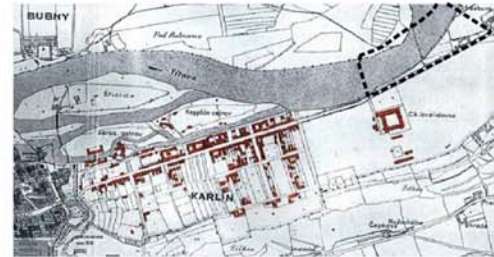
In the decades after 1930, a vast territory of the Karlín bank, called Rohan Island, but made up of linked historical islands and filled-in river arms, became territory of dumps, warehouses, parking lay-by, concrete mixing, simply dismal industrial wilderness. Excavated soil from construction of the underground was exported there. Ordinary citizens of Prague had no idea about the existence of a large space near the city center due to high impenetrable thickets. There was no reason to go there.



1840



1923



around 1850



1929



Karlín harbor, Pobežní Street, around 1905



view from the Olympik hotel, 1986



1869



1854



Maniny, view from Libeň, 1923

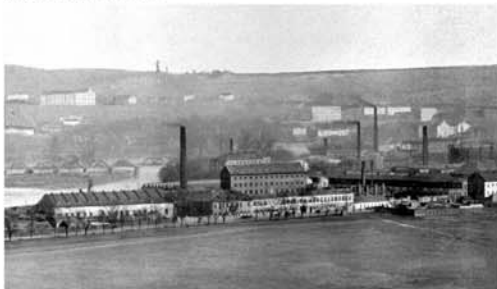
_HISTORY OF GREAT PLANS



The Invalidovna Building today



Ruston Factory after 1850



Ruston Factory after 1900



Ruston Factory today



Invalidovna Housing Estate



Invalidovna Housing Estate - contemporary maquette



Invalidovna Housing Estate - sculpture at the commercial center



Olympic complex study, 1971

THE INVALIDOVNA BUILDING

Invalidovna was built from 1731 to 37 as a dormitory for war invalids (veterans) by Kilian Ignac Dienzenhoffer. Its model was Les Invalides, a building for veterans inaugurated in Paris in 1679. Only a ninth of the original design was ever completed. About 1200 inmates lived there. In 1935 all inhabitants were moved to another "invalidovna", at Hořovice, and the building was used by the Czech army. It was used as an army archive. The building was damaged by a flood in 2002, most of the archive materials was destroyed. The building currently awaits an expensive reconstruction. One possible future use is as a part of the Philosophical Faculty of the Charles University.

RUSTON FACTORY

"Rustonka" is one of the oldest industrial factories in Prague. The first buildings were built up in the Karlin district in the 30's of the 19th century. The name is according to Joseph John Ruston, who was the owner since 1850. Most of the factory buildings were constructed in his time. Various steel structures, steam engines, etc. were produced there. Machinery was significantly involved with such structures as no longer existing two Prague's bridges, the catwalk at the Rudolfinum (now the site of Mánes Bridge) and the Chain Franz Joseph I Bridge (now the site of Štefánek Bridge).

Currently, just the boiler house with its 42 m high octagonal chimney remains. The chimney is one of the oldest in the city.

INVALIDOVNA HOUSING ESTATE

The experimental housing project, located in the former military training area covering about 13 hectares, with approximately 1260 apartments for 4200 people had been designing since 1959. Its implementation lasted from 1960 to 1965. The architectural design is the work of a group of Prague Project Institute led by the architect Josef Polák, urban design architects were Jiří Novotný, Stanislav Horák, František Šmolík.

The original housing project extends from the primary school which is on the same level as the Baroque Invalidovna Building, to the foot of Krejcarok. These plans were abandoned. The complex thus consisted of a few different types of residential buildings, a commercial center, a black oil boiler room, a kindergarten and an elementary school. From 1964 to 1970 the Olympik Hotel supplemented the project.

The eight chessboard associated ground pavilions of kindergarten for 155 children had disappeared in the flood.

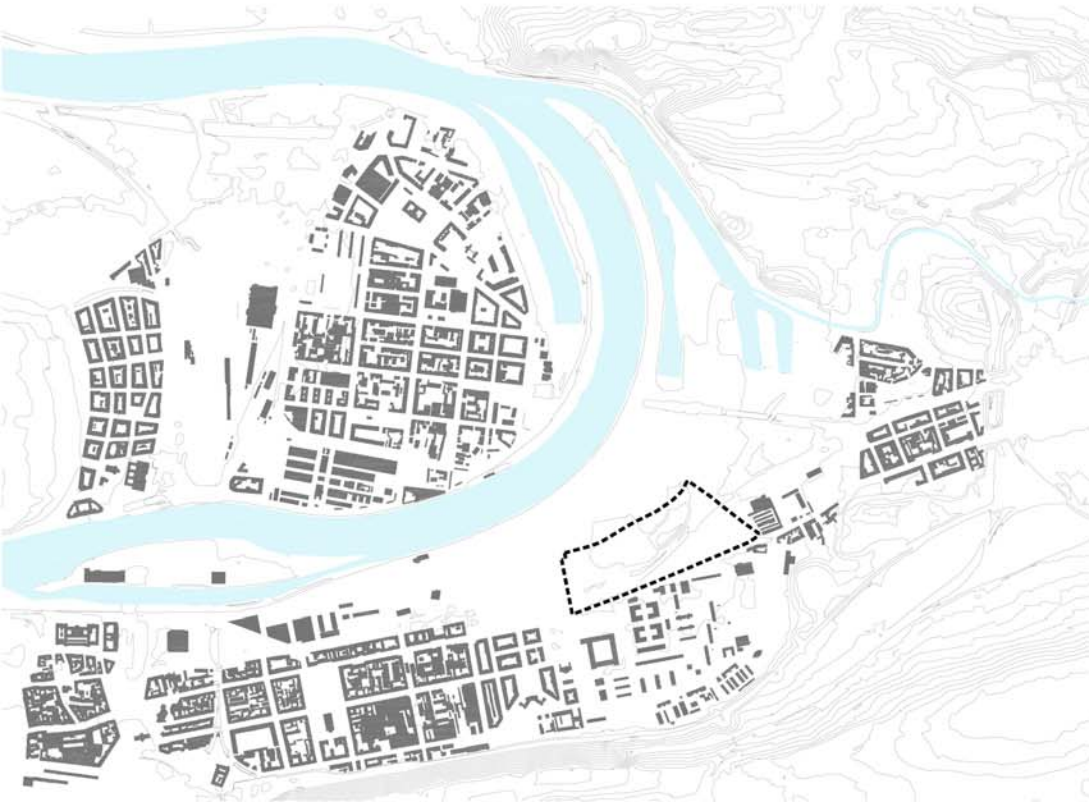
What was the experiment? The advanced panel construction, which due to the large, 6m, allowed a new free layout of the apartments with strip windows. Experimental panel system led to the remarkable variability of prefabricated houses: stair houses, terraced houses, houses with duplexes. It released the facade. The residential buildings have no basement.

The Expo Building, the dominant of the estate, was designed as a hotel house. It offered furnished apartments for temporary housing and some services. The building has been however taken over by permanent residents. An innovative feature of this construction is aluminum trim, which is now historically protected.

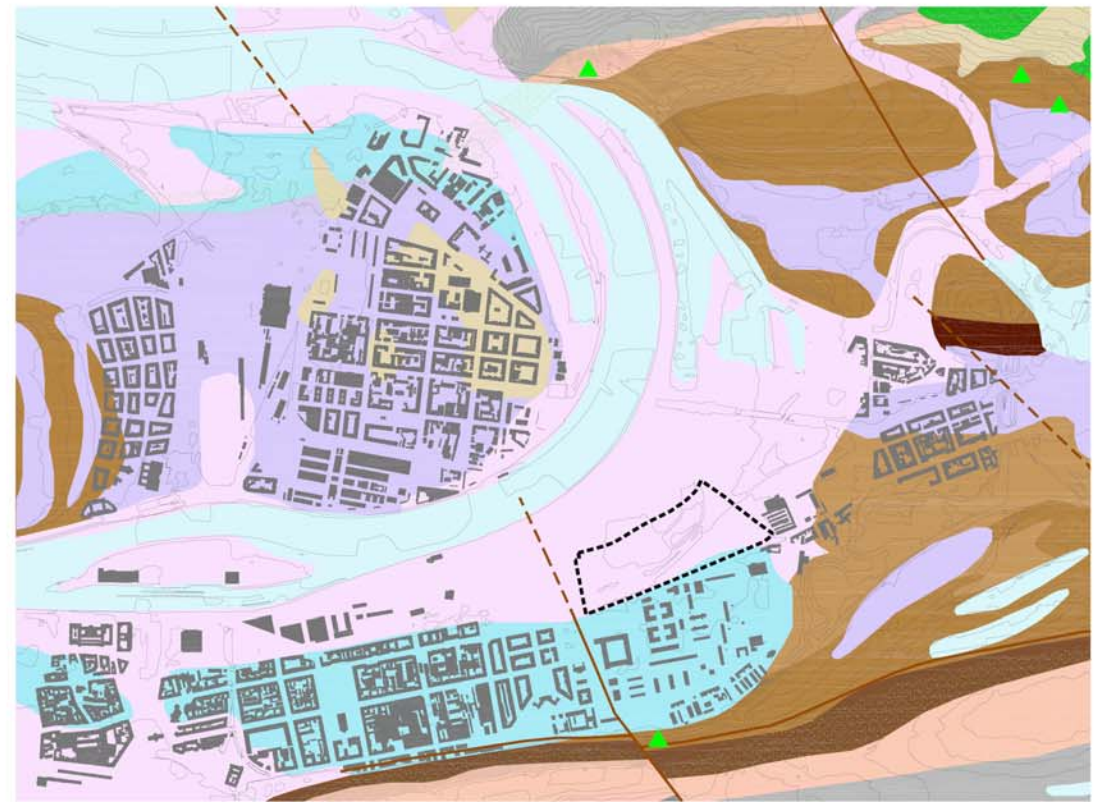
THE OLYMPIC GAMES IN PRAGUE

There were a serious talks about The Olympics in Prague since 1968. An architectural competition was announced in 1971. It was won by Jaroslav Paroubek (the CTU faculty in Dejvice, The Praha hotel in Hanspaulka), Amoš Návratil and Luděk Todt. The Olympic center was located on the Rohan Island, the stadium should have used the soil from the metro construction as a modelated tribunes as well as the flood protection. The white line of the edge would only be seen from a distance. It resembled a little later formed Olympic complex in Munich (1972), only the original roof design (engineer Frei Otto) is not here. The official request for the nomination from Prague was for the Olympics in 1980. Moscow beat us. The Olympik Hotel is the only building completed of the abandoned Olympic complex.

_TOPOGRAPHY



_GEOLOGY



Cenozoic - Quaternary

- sample weight, heap, dump, waste pile
- alluvial sediment
- mixed sediment
- loess and loess loam
- sandy gravel
- sand, gravel

Palaeozoic - Ordovician

- clay shale ID: 545
- alternation of greywackes, sandstones, siltstone and clay shale
- dark gray claystones, siltstones
- greyish clay shale
- quartz sandstone
- clay shale ID: 546

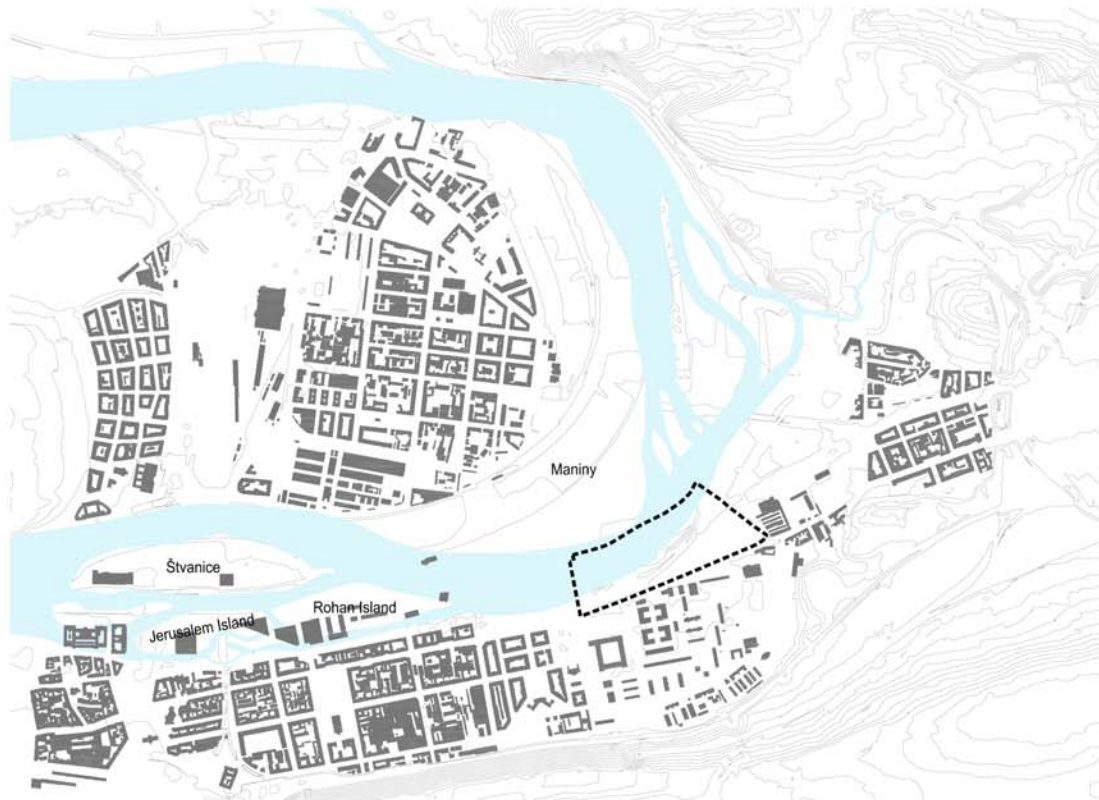
Proterozoic - Neoproterozoikum

- siltstones, shales
- low radon risk
- identified tectonic lines
- expected tectonic lines
- active landslides, small-scale
- other landslides, small-scale

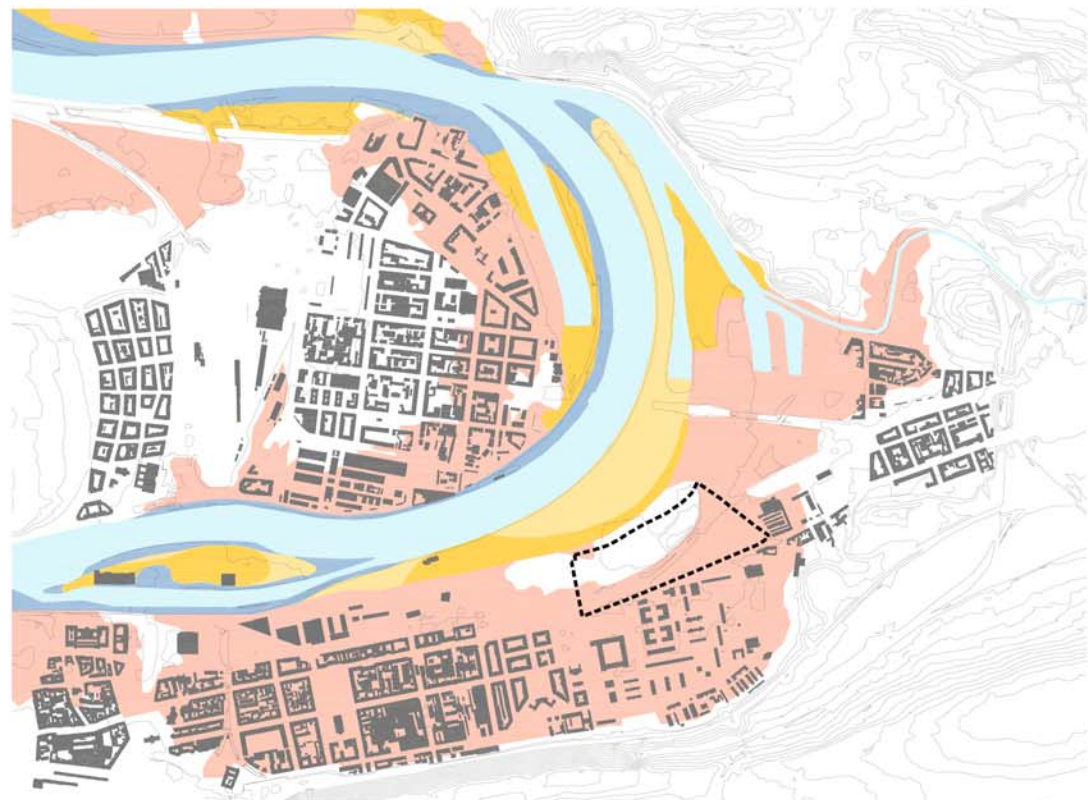
0 500m



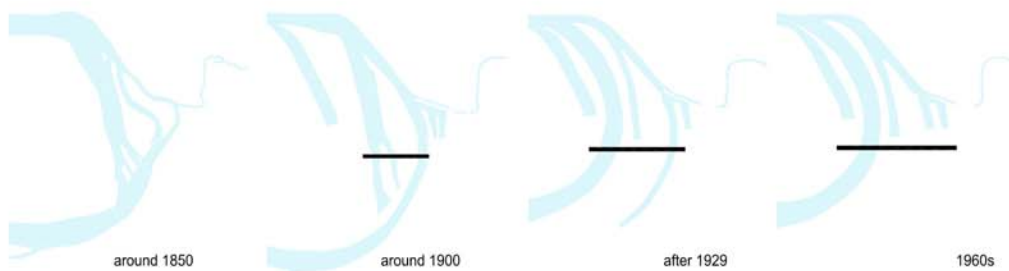
_THE RIVER IN 1840



_THE RIVER TODAY _FLOOD PLAINS



_DEVELOPMENT



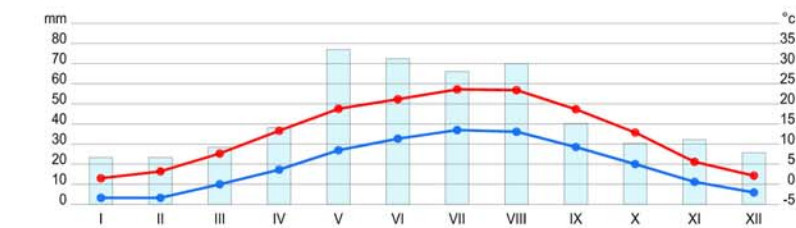
- active floodplain
- flow floodplain
- unflow floodplain
- floodplain under the protection of the city

0 500m



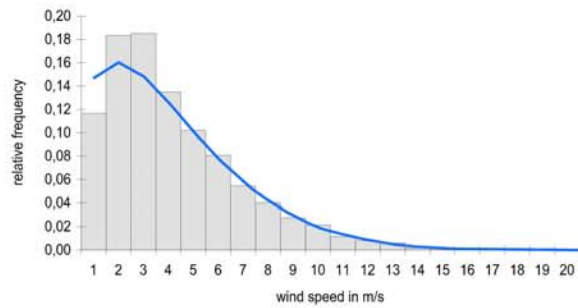
_MICROCLIMATE

Temperature and rain



- water column
- maximum temperature
- minimum temperature

Wind speed



- measured data
- theoretical distribution

The wind speed measured at the meteorological station Prague-Ruzyně in the years 1994-1999.

Wind direction

Direct.	N	NE	E	SE	S	SW	W	NW	calm
%	11.2	4.9	12.3	4.3	8.1	16.7	16.0	6.8	19.7

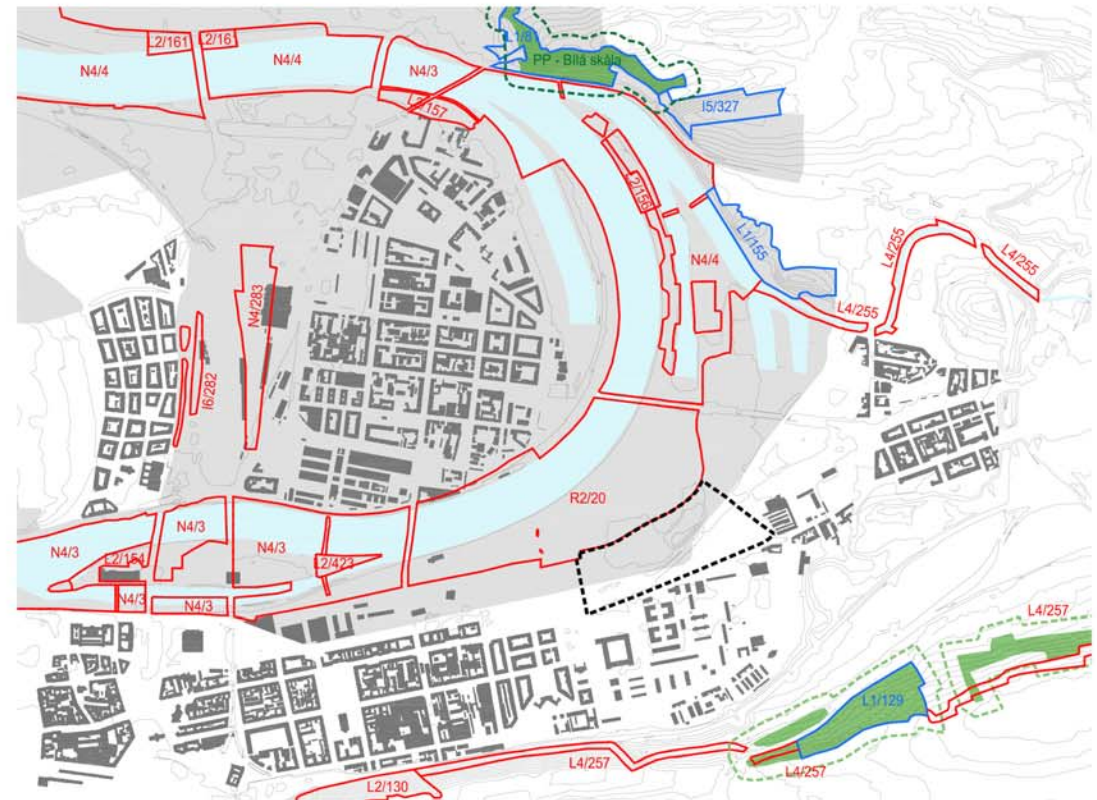
Data for the Main Point Karlin Building.

Modified wind rose



Considering the altitude of 350 - 360 meters above sea level, very good ventilation conditions can be expected. Average wind speeds at a height of 10 m above ground are 4.3 m/s. The modified wind rose data indicates that SWW winds are the most numerous. On the contrary, SE and NE winds are the least numerous.

_TERRITORIAL SYSTEM OF ECOLOGICAL STABILITY _TERRITORIAL AND SPECIES PROTECTION _FORESTS

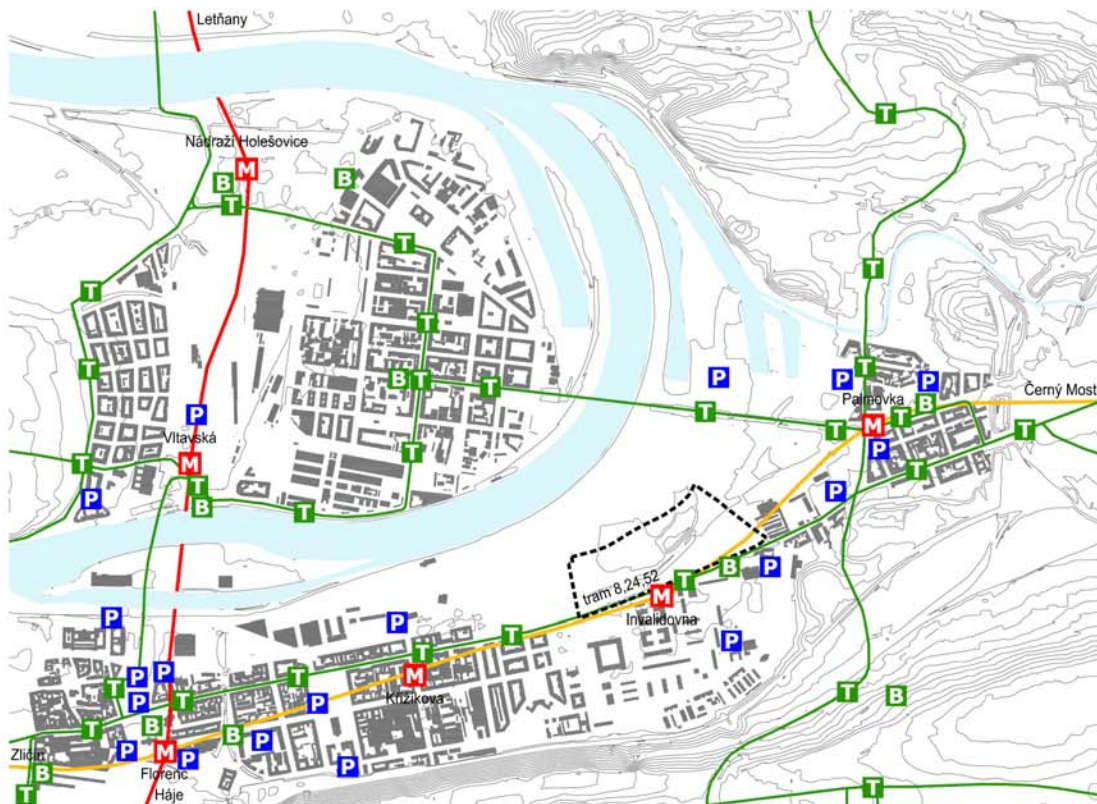


- supra-regional bio-corridor axis, non-functional
- regional bio-center, non-functional
- local bio-center, functional
- local bio-center, non-functional
- local bio-corridor, non-functional
- interaction element, functional
- interaction element, non-functional
- protection zone of supra-regional bio-corridor
- natural monument
- protection zone of NM
- forests
- special purpose forests
- protection zone of 50m from the forest boundary

0 500m



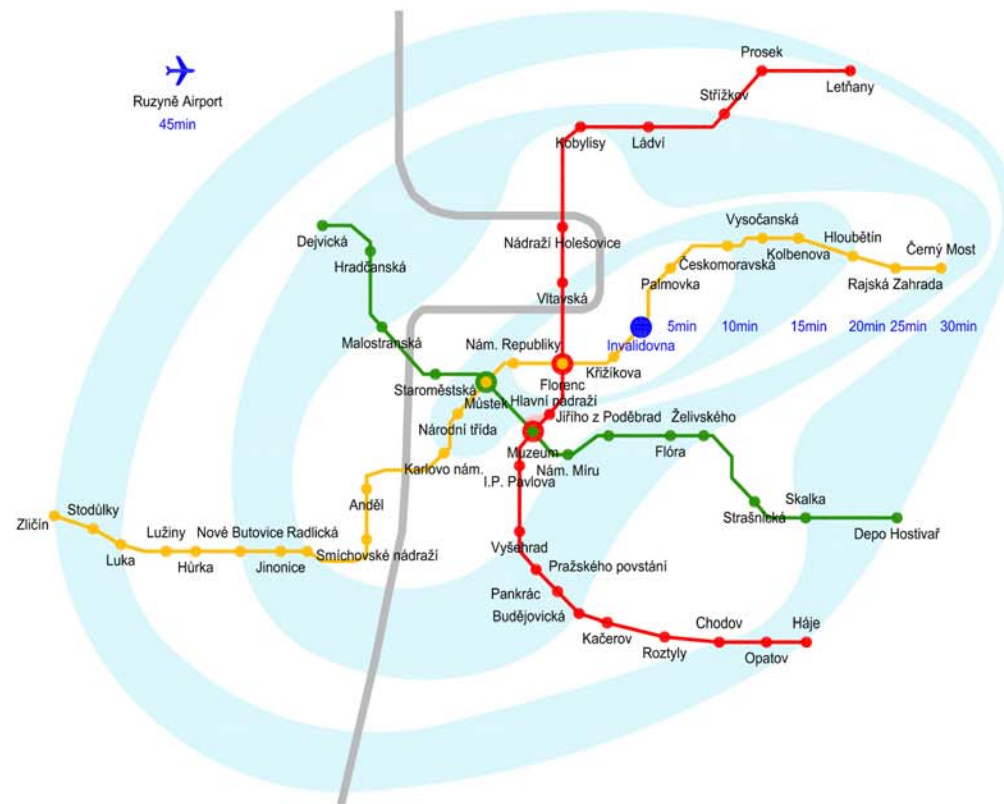
_PUBLIC TRANSPORT AND PARKING



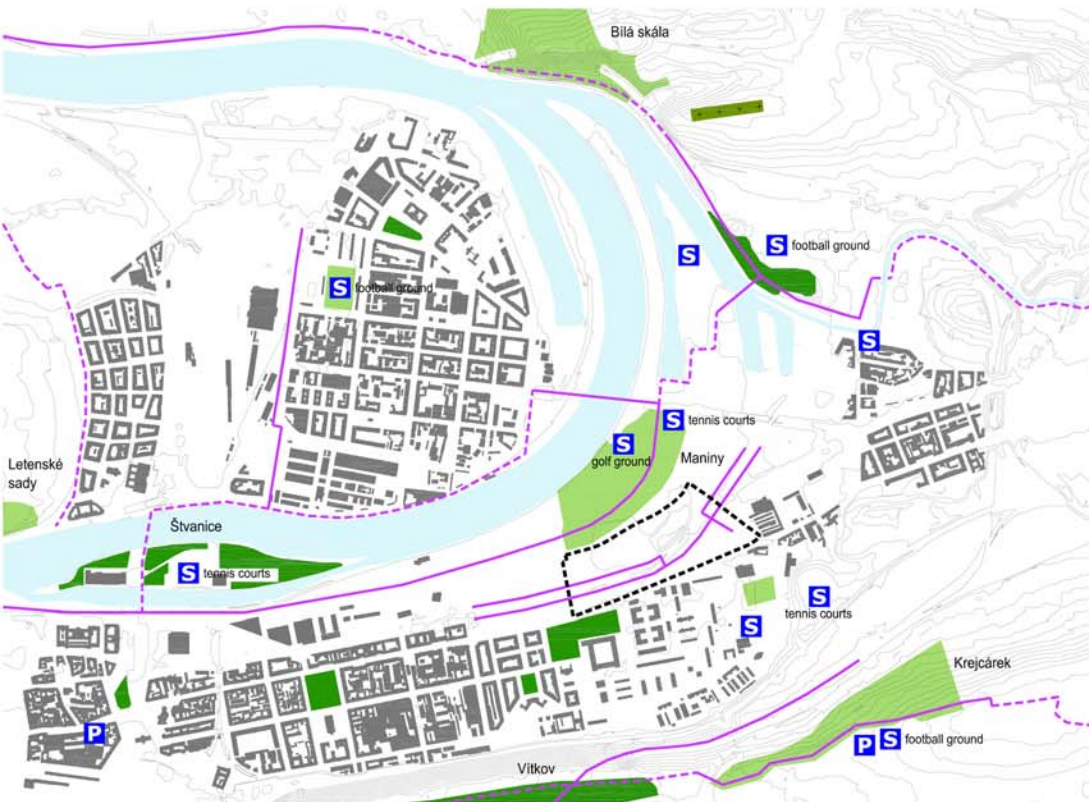
- metro line B
- metro line C
- tram route
- M subway station
- T tram stop
- B bus stop
- P parking lot

- tram 8 Podbaba - Vítězné nám. - Hradčanská - Strossmayerovo nám. - Nám. Republiky - Florenc - Palmovka - Nádraží Libeň - Starý Hloubětín
- tram 24 Kubánské nám. - Albertov - Karlovo nám. - Václavské nám. - Masarykovo nádraží - Florenc - Palmovka - Kobylisy
- tram 52 Lehovec - Hloubětín - Nádraží Libeň - Palmovka - Florenc - Masarykovo nádraží - Václavské nám. - Lazarská - Výtoň - Nádraží Braník (tram 52 goes only at night)

_UNDERGROUND NET _DISTANCE IN TIME

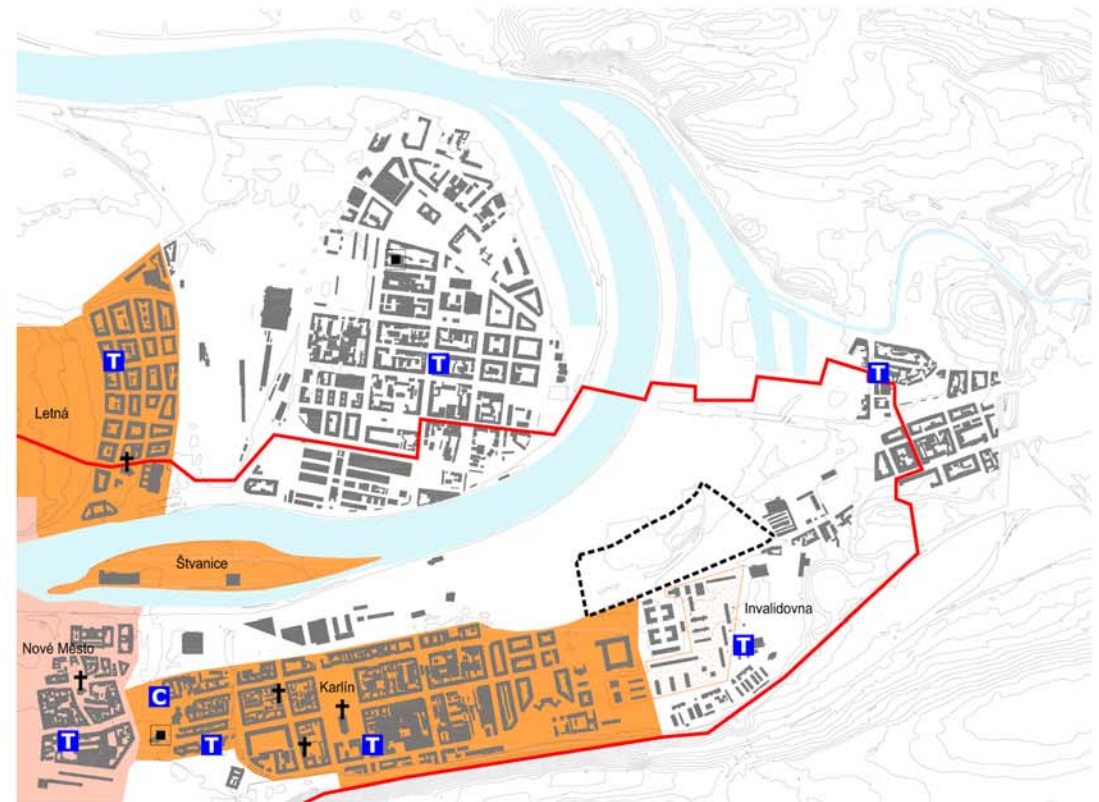


_DAILY RECREATION



- rivers, ponds
- parks
- large green spaces
- cemetery
- cycling path
- planned cycling path
- sports facilities
- public swimming pools

_SIGTHS AND CULTURE

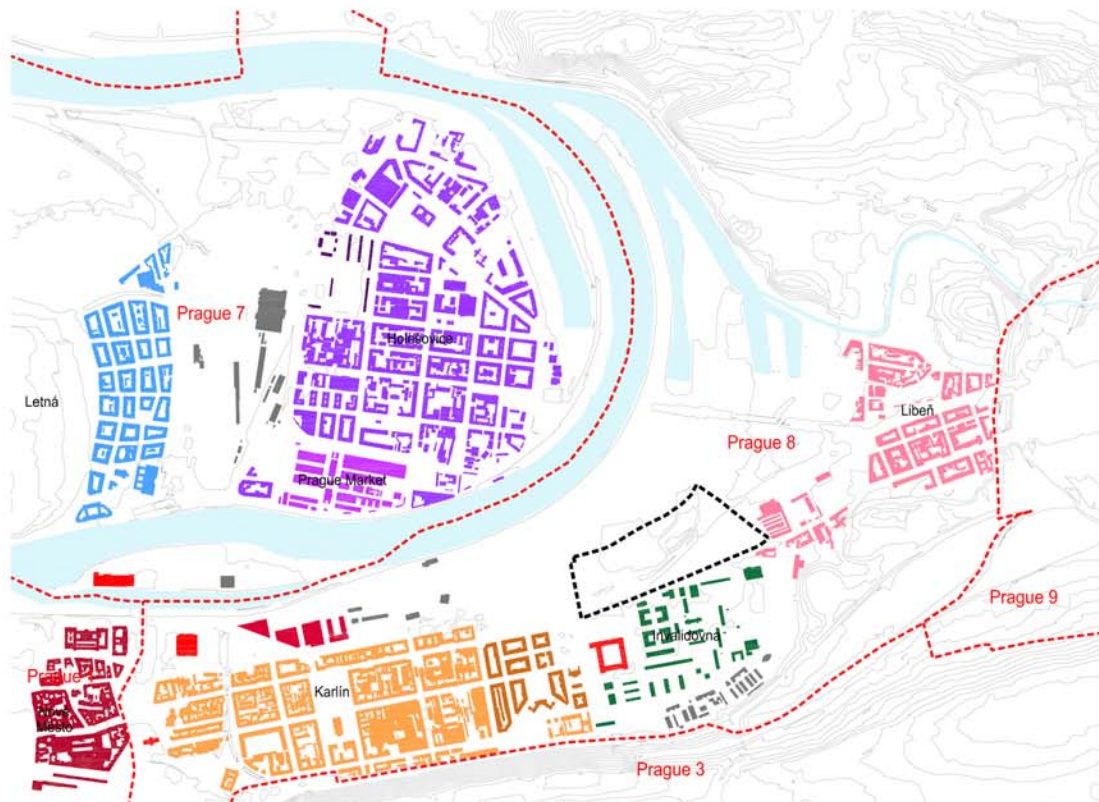


- conservation area
- conservation zone
- valuable urban complex
- prohibition of high-rise buildings territory
- cinema
- theatre
- muzeum, gallery
- church

0 500m



_CHARACTERISTIC PARTS OF THE CITY



Experimental housing estate Invalidovna, 1960-65
 Jiří Novotný, Stanislav Horák, František Šmolík
 Approximately 1260 apartments for 4200 people



Invalidovna Building, 1731-37
 Kilian Ignac Dientzenhoffer
 1/9 of the original project



Karlín, founded in 1817



Karlín, around 1903



Holešovice, housing estate from 1950s



Holešovice, known since 1228



0 500m



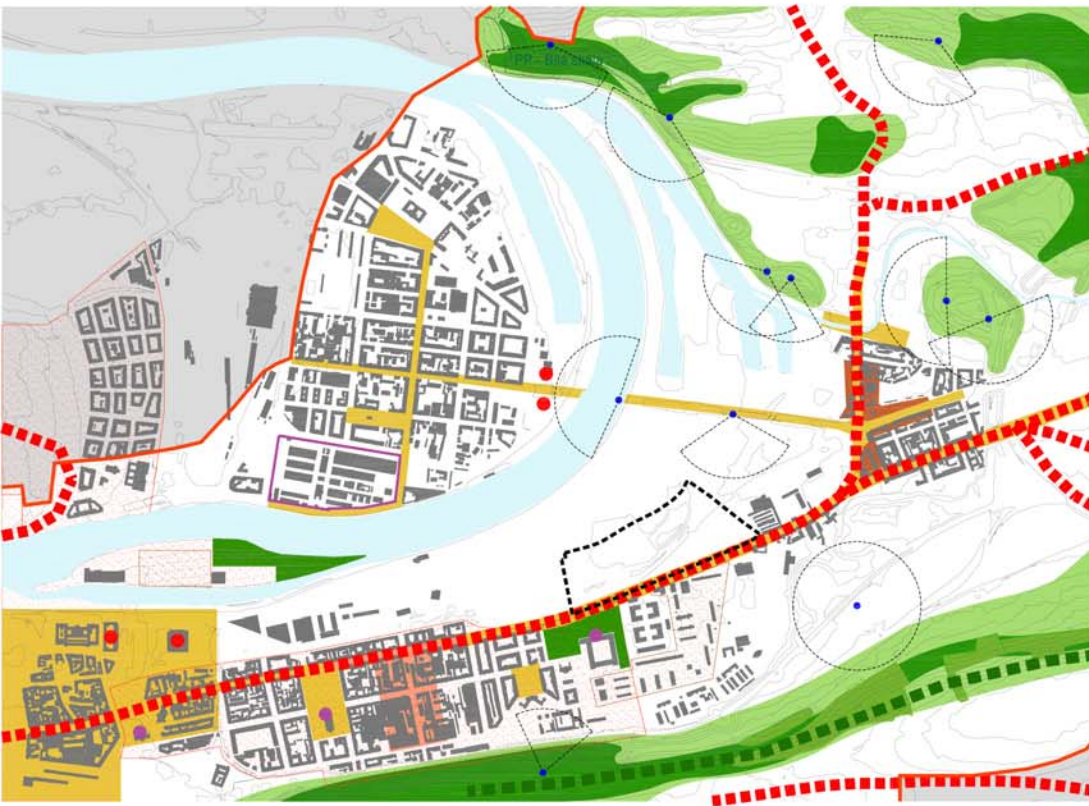
Prague Market, around 1880
 Previous slaughterhouse



Libeň, known since 1363



_AREA VALUES



Civilization values

- urban centers
- assembly area amenities
- significant public spaces

Cultural values

- conservation areas
- conservation zones
- valuable urban complexes
- selected historically important buildings or complexes

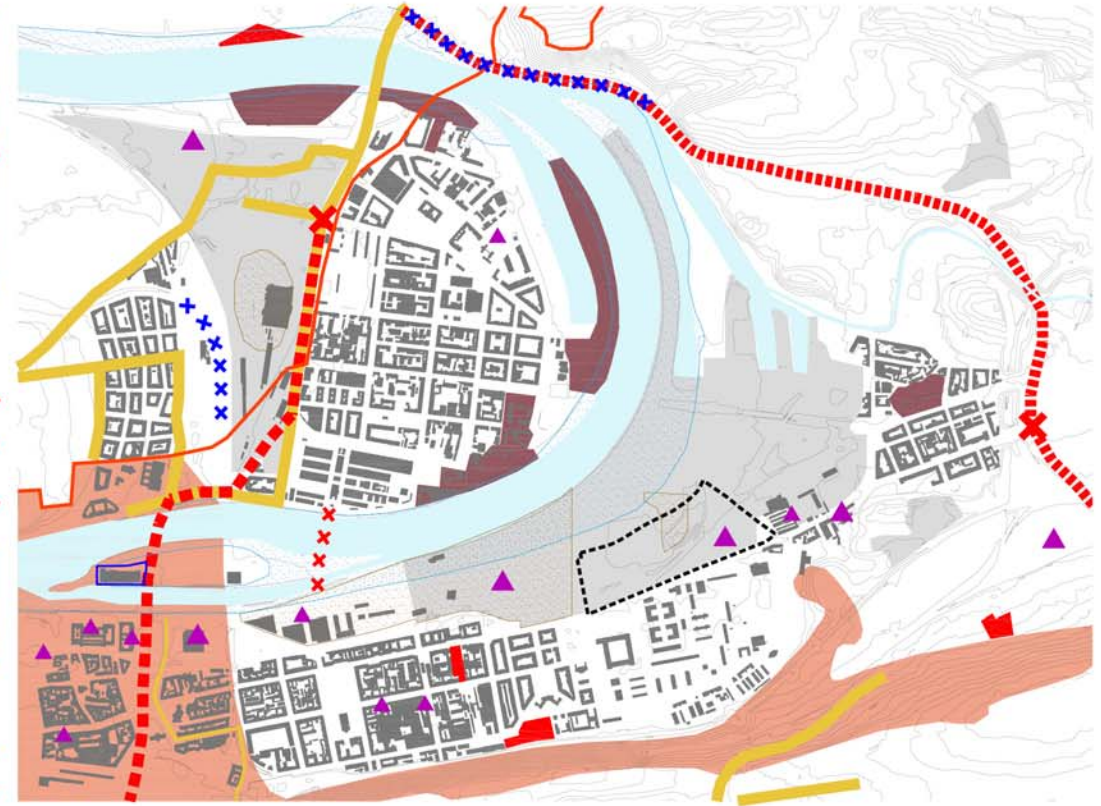
Nature values

- natural monuments
- forests

Composition values

- natural green axis
- valuable green areas
- very exposed slopes
- significant landmark buildings
- significant lookout points with their lookout angles
- horizon-view of the historic core
- areas out of the view of the historic core
- historical urbanization axis

_AREA PROBLEMS



Areas with problems of utilization and conservation of existing values

- view horizon (the area visible from the historic core)
- significantly exposed locations from the historic core
- significant reconstruction areas
- significant brownfield areas

Problems of transport infrastructure

- problem of north-south arterial
- specification of the city circle in the eastern part

The problems of technical infrastructure

- incomplete flood protection

Other induced problems

- roads with the creation of queues of vehicles,
- significant lines source of air pollution
- operationally critical crossroads
- point sources of pollution

Places of territorial restrictions and conflicts of goals and limits

- liner restrictions and conflicts of urban goals
- areal restrictions and conflicts of urban goals
- liner restrictions and conflicts of transport infrastructure goals

Threats in the area



















- floodplains - active and flow
- old burdens - the area above 0.5 ha

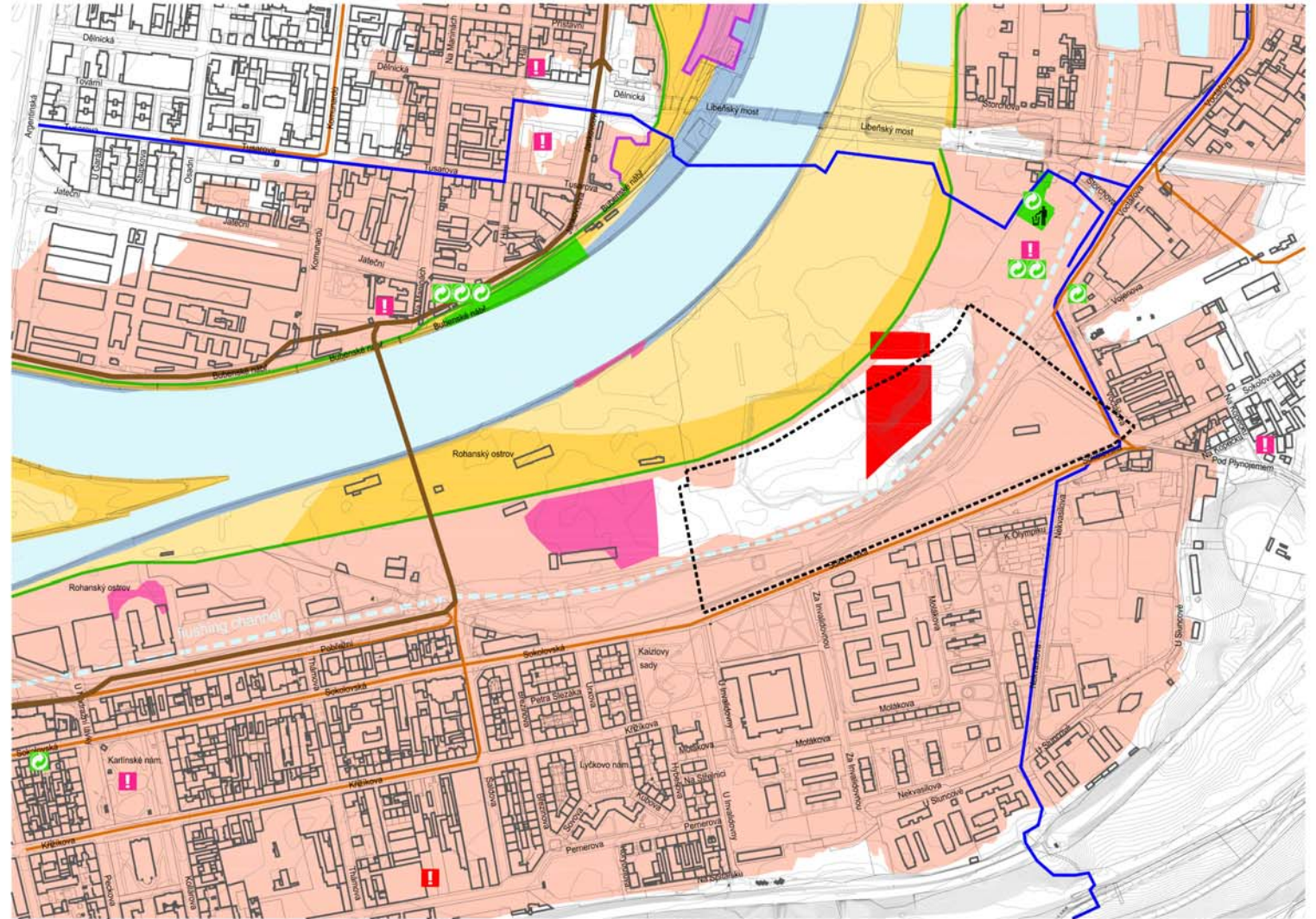




INVENTORY II

_WATER AND WASTE MANAGEMENT

-  flushing channel
- Collection and treatment of wastewater**
 -  main sewer
 -  collector sewer
- Water supply**
 -  water supply lines - potable water
- Floodplains category**
 -  active floodplain
 -  flow floodplain
 -  unflow floodplain
 -  floodplain under the protection of the city
 -  floodplain under individual protection
- Flood Protection Facilities**
 -  facilities of flood protection provided by the city
 -  facilities of flood protection provided individually
- Waste management**
 -  areas for the waste management
 -  facilities for the waste management according to the law No.185/2001 Coll.
 -  waste collecting yards
- Old Ecological Burdens**
 - Significant in size (area above 0.5 ha)**
 -  dump
 -  potential contamination
 - Insignificant in size**
 -  soil contamination
 -  potential contamination



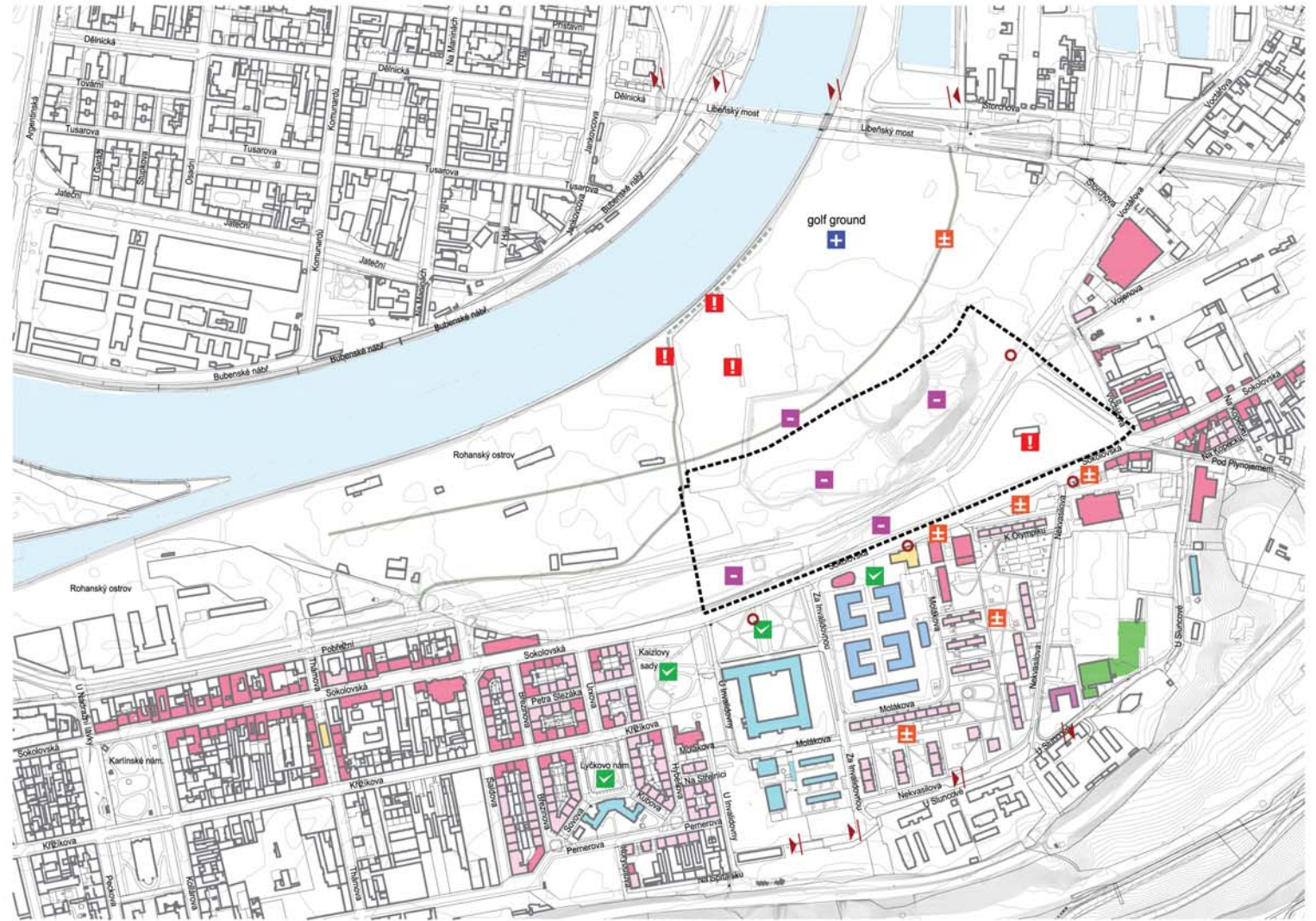
_FUNCTIONS OF THE PARTERRE

- housing
- services
- culture
- education, science
- administration
- transportation
- sport

_CONDITIONS OF SPACES

- excellent
- very good
- good
- poor
- dangerous

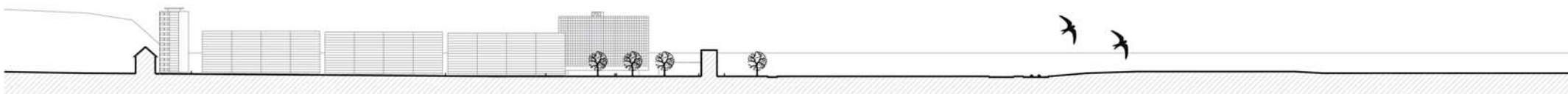
- points of the observation of urban occupancy





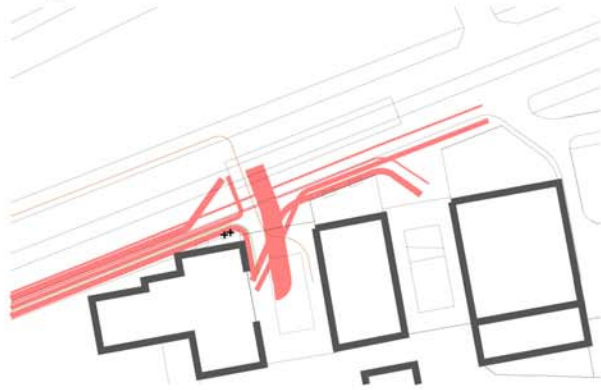
_MASTER PLAN FROM JUNE 17 2010

- OV-G multifunctional generally residential areas
- SO3 multifunctional rest areas
- SP multifunctional sport areas
- SV-H multifunctional generally mixed areas
- ZVO-H multi-functional areas - others special complexes
- VOP mono-functional areas - water flow and areas, navigation channels
- ZMK mono-functional areas - urban green and landscape
- ZP mono-functional areas - parks, historic gardens and cemeteries

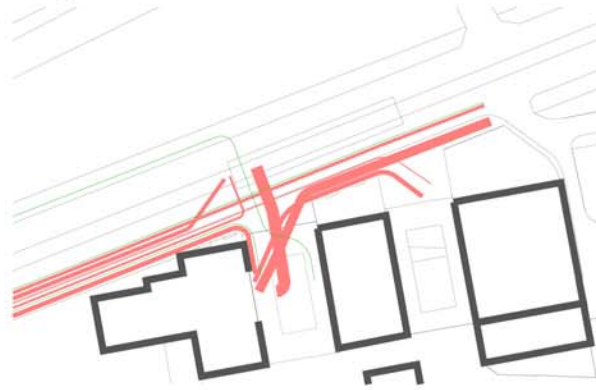


_URBAN OCCUPANCY IN FRONT OF INVALIDOVNA SUBWAY STATION

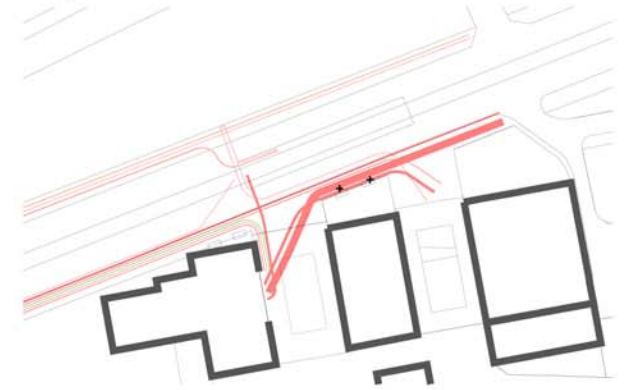
Monday 08/08/2011 08:10 - 08:40



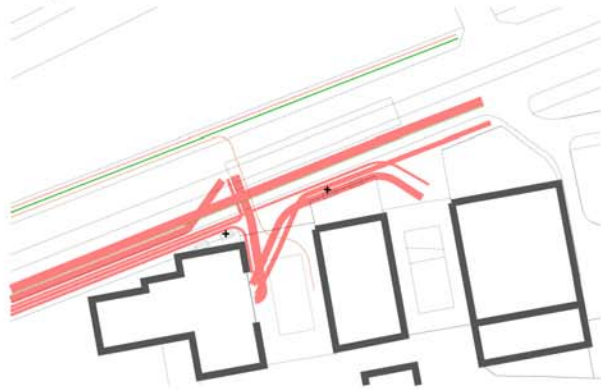
Thursday 04/08/2011 08:10 - 08:40



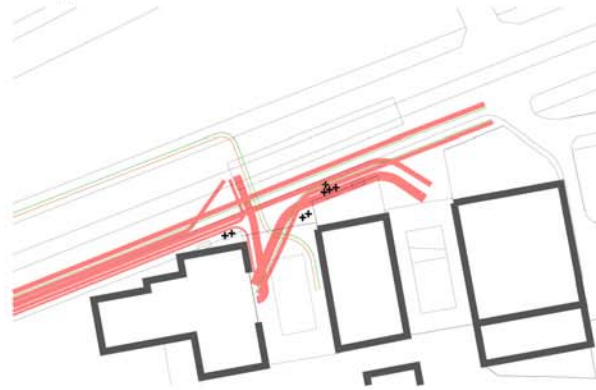
Sunday 18/09/2011 08:10 - 08:40



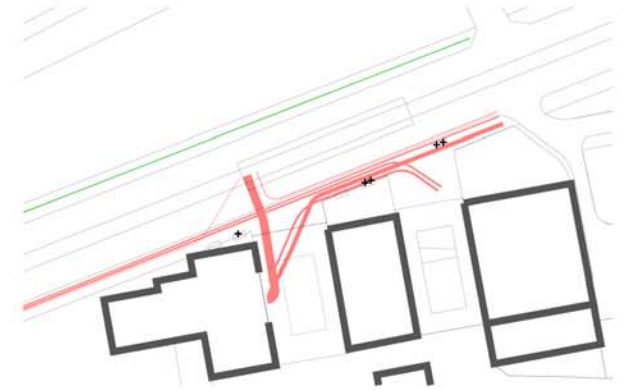
Monday 08/08/2011 12:00 - 12:30



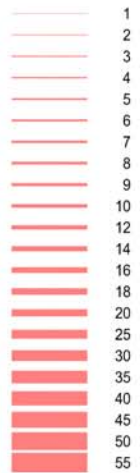
Thursday 04/08/2011 12:00 - 12:30



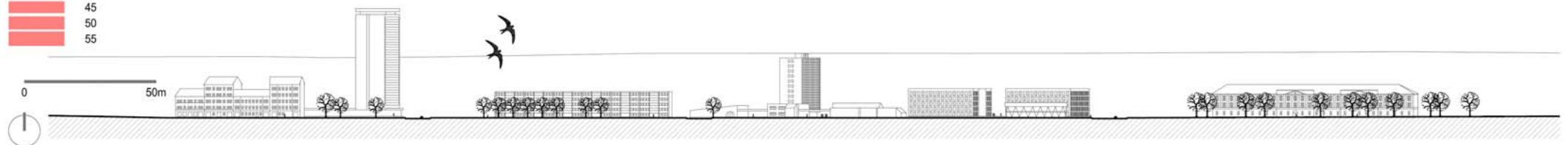
Sunday 18/09/2011 12:00 - 12:30



Number of pedestrians:



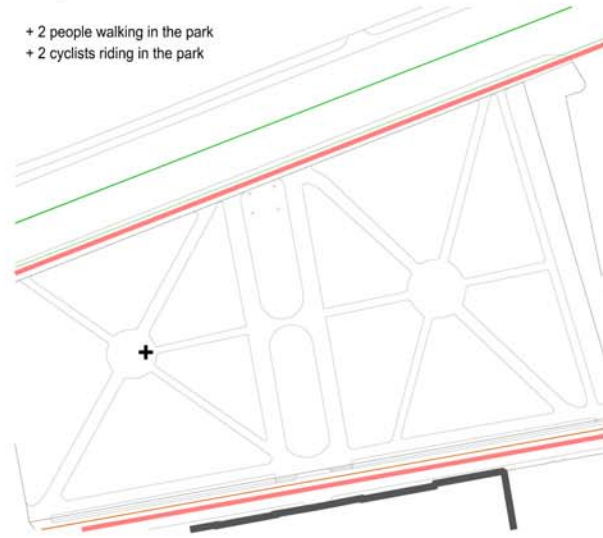
pedestrian pedestrian with a dog cyclist + sitting or standing for 5 to 10min



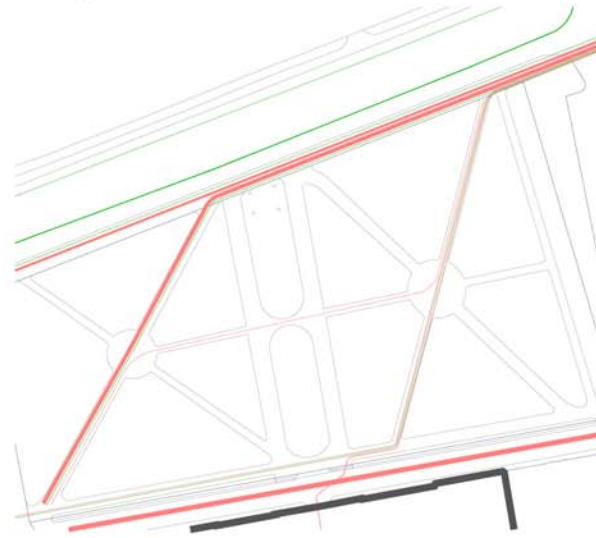
_URBAN OCCUPANCY IN FRONT OF THE INVALIDOVNA BUILDING

Monday 29/08/2011 08:30 - 09:00

+ 2 people walking in the park
+ 2 cyclists riding in the park



Wednesday 14/09/2011 08:30 - 09:00

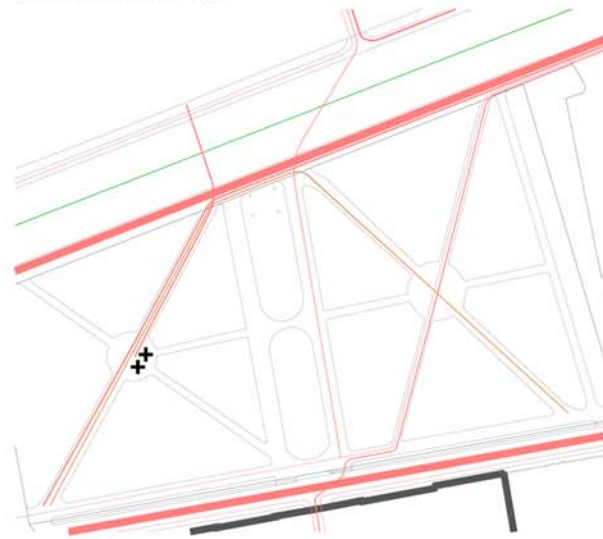


Sunday 18/09/2011 08:30 - 09:00

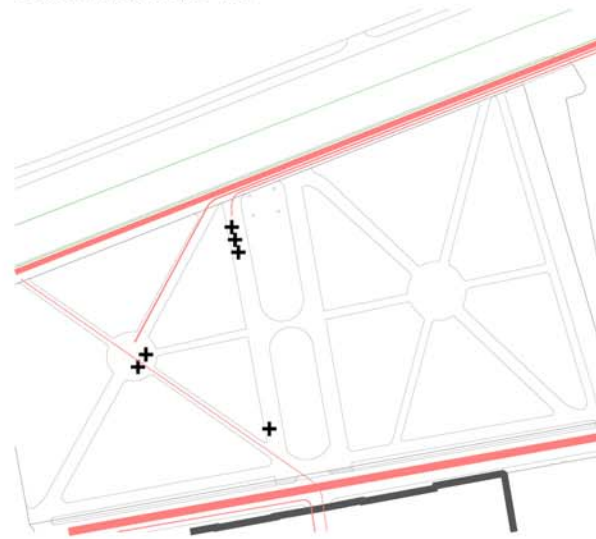
+ 2 people walking in the park with a dog
10min no movement



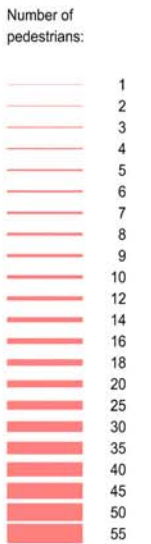
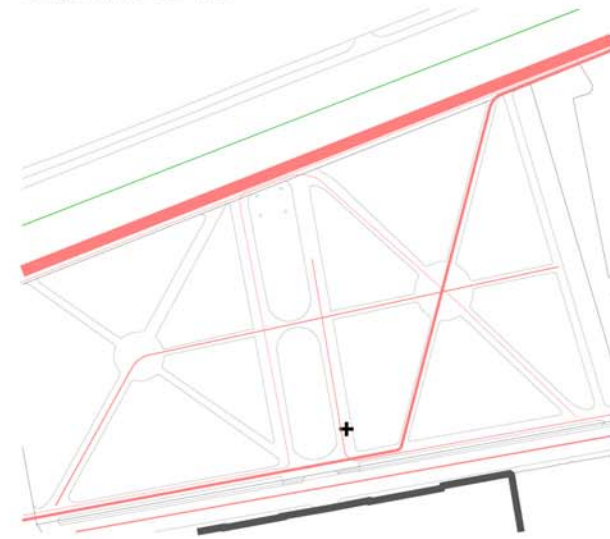
Monday 29/08/2011 11:15 - 11:45



Wednesday 14/09/2011 11:15 - 11:45



Sunday 18/09/2011 11:15 - 11:45



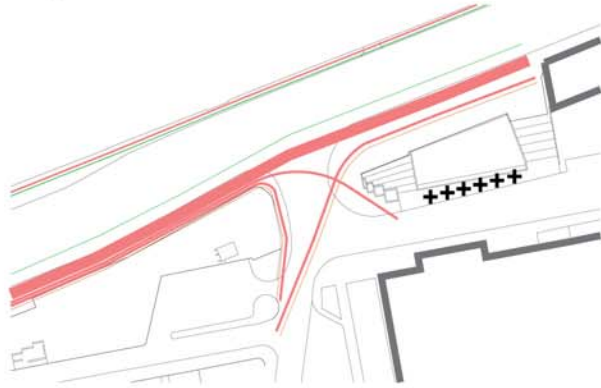
— pedestrian — pedestrian with a dog — cyclist + sitting or standing for 5 to 10min

0 50m



_URBAN OCCUPANCY IN FRONT OF THE OLYMPIK HOTEL

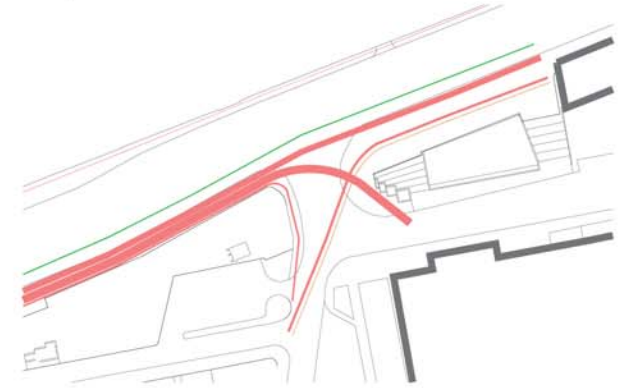
Monday 29/08/2011 09:10 - 09:40



Wednesday 14/09/2011 09:10 - 09:40



Sunday 18/09/2011 09:10 - 09:40



Monday 29/08/2011 12:00 - 12:30



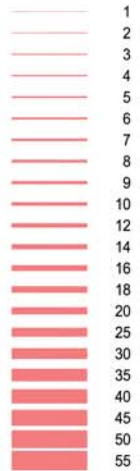
Wednesday 14/09/2011 12:00 - 12:30



Sunday 18/09/2011 12:00 - 12:30



Number of pedestrians:



pedestrian pedestrian with a dog cyclist + sitting or standing for 5 to 10min

0 50m

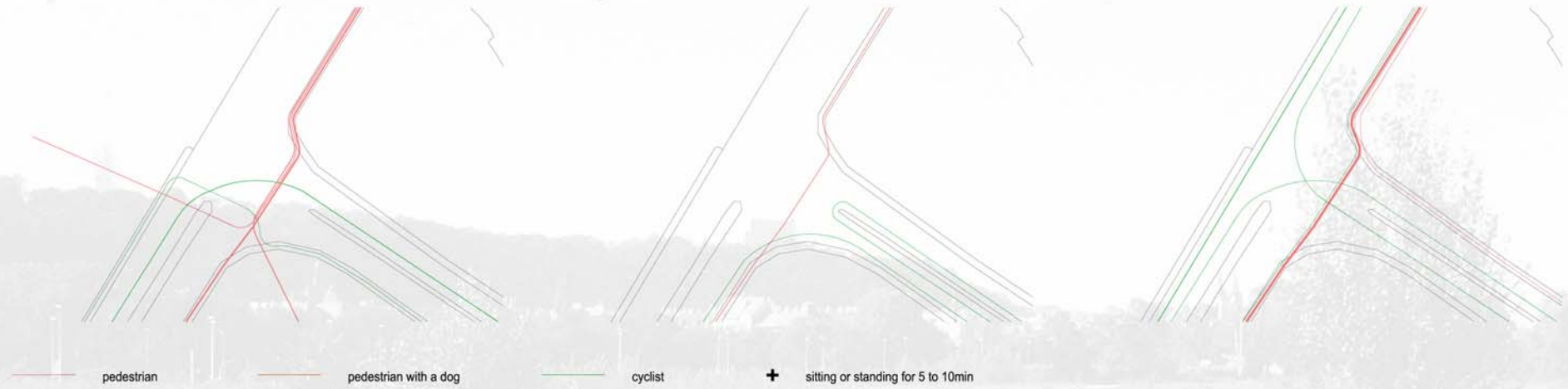


_URBAN OCCUPANCY AT THE CROSSROADS

Monday 29/08/2011 10:00 - 10:30

Wednesday 14/09/2011 10:00 - 10:30

Sunday 18/09/2011 10:00 - 10:30



Number of pedestrians:

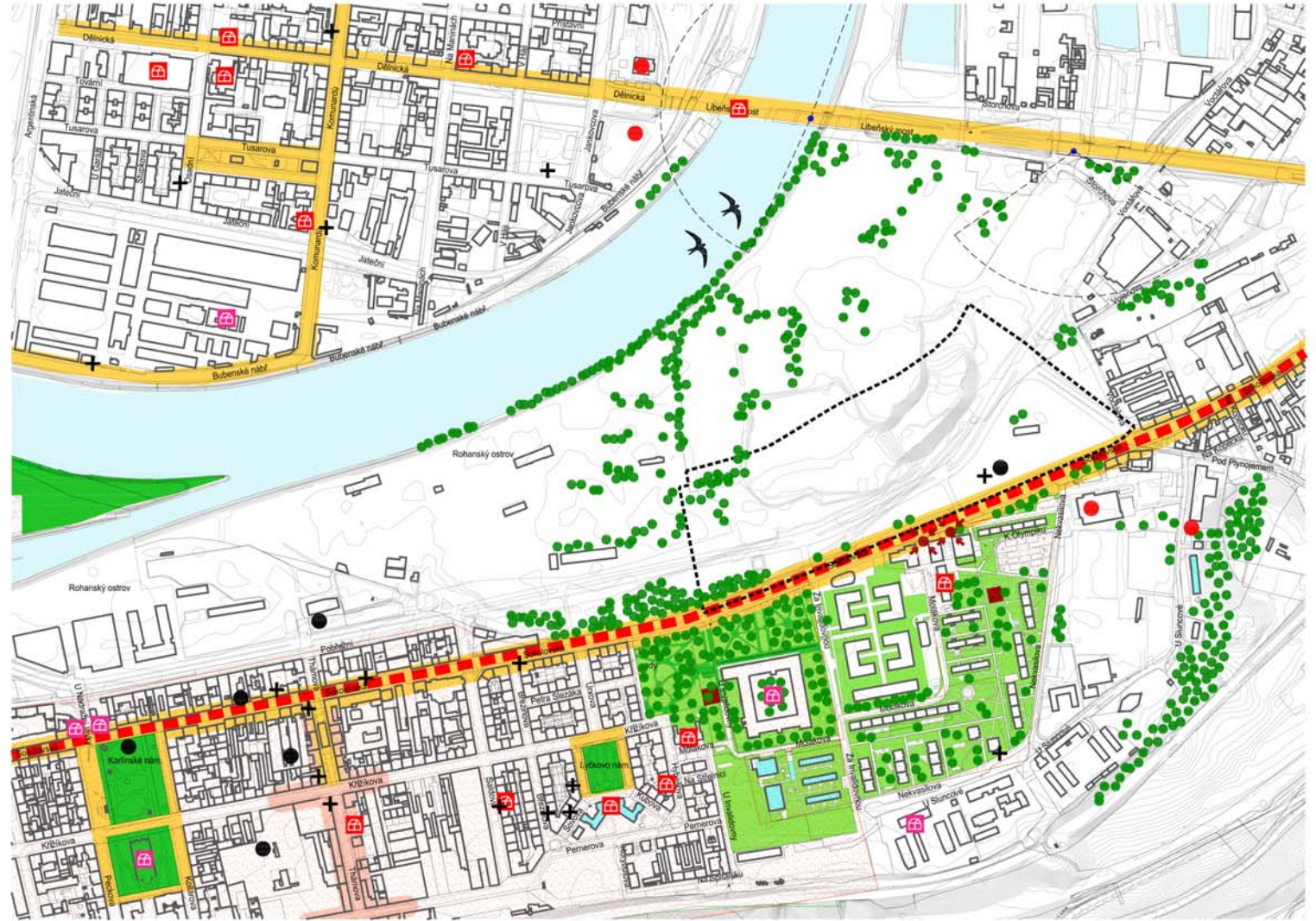


0 50m



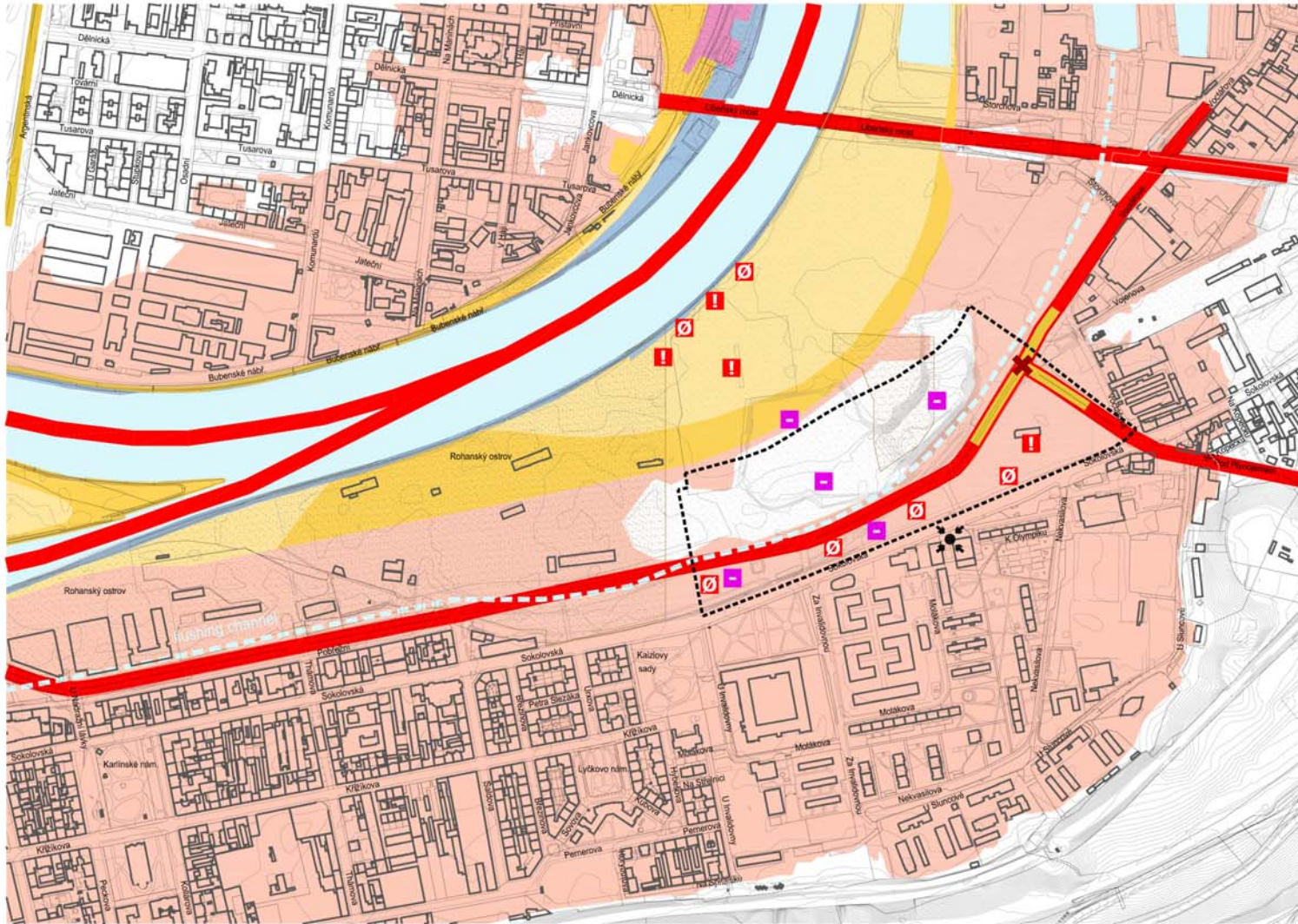
_PLACE VALUES

- Nature values**
- trees
 - infiltration surface in built-up area
 - river
 - significant concentration of birds
- Civilization values**
- urban centers
 - significant public spaces
 - parks
 - playgrounds
 - schools
 - meeting points
- Cultural values**
- conservation zones
 - valuable urban complexes
 - selected historically important buildings or complexes
 - architecturally valuable buildings and complexes
 - places of significant events
 - memorial places and war graves
- Composition values**
- significant landmark buildings
 - significant lookout points with their lookout angles
 - historical urbanization axis



_SWOT ANALYSIS

<p>Strong</p> <ul style="list-style-type: none"> - river area - high lucrativeness in the city - enough green areas - traffic connection to the city center 	<p>Weak</p> <ul style="list-style-type: none"> - connection to the river - barrier of the Rohanské nábřeží - fragmental, dangerous cycloways - dysfunctional USES - old burdens (junkyard) - poor condition areas - dangerous areas 	<p>Opportunities</p> <ul style="list-style-type: none"> - proximity to the center - unbuilt-up area - place of daily recreation - the river - services in the subway station area - subway station 	<p>Threats</p> <ul style="list-style-type: none"> - flooding - unsurpassed barriers - disruption of USES and its prote - flushing channel disruption - developer abuse
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_PLACE PROBLEMS

- Threats in the area**
- active floodplain
 - flow floodplain
 - unflow floodplain
 - floodplain under the protection of the city
 - floodplain under individual protection
 - old burdens - the area above 0.5 ha
- Social problems**
- poor conditions areas
 - ! dangerous areas
 - ignored areas
 - ⦿ meeting point of the homeless
- Transport problems**
- roads with the creation of queues of vehicles, significant lines source of air pollution
 - X operationally critical crossroads
 - very significant movement barriers
- Areas with problems of utilization and conservation of existing values**
- significant reconstruction areas
 - significant brownfield areas



Karlín brownfield site is unique, it is an opportunity to improve the quality of urban life all over Prague. The main advantage of the area is Invalidovna metro station and a hidden rare green river bank.

Thus the opportunity to improve the quality of life for the people of Prague is a modern large-scale implementation of the park along the river, easily accessible by subway. Such a place is not in Prague. A pleasant walk along the river is possible somewhere in the periphery or just in the cobbled old town center with the absence of greenery.

And a metro station connected with the river? There is Vltavská metro station, but it is as far from being a gateway to one of the strongest symbols of the city - the Vltava River as it can be.

Each site is designed to fulfill some function. My area is ideal for living with all facilities, for symbiotic administration and, of course, for everyday recreation.

After gathering analytical data, I have set five basic goals - fixed guides of my work:

1. Eliminate barrier of Rohanské nábřeží
2. Open public access to the riverfront as a social and environmental amenity
3. Create a friendly urban structure
4. Restoring and protecting landscape and natural systems
5. Create a riverfront identity that represents a good address in the city

In the first phase, it was important to analyze the impact of surroundings: the housing estate Invalidovna and the area between the streets U Rustonka and Zenklova. The housing estate Invalidovna is a remarkable unit, but lacks essential features of European cities: the intensity, mix of functions. The second area is messy, awaiting redevelopment. Wider urban area lacks the character, the center. Thus from the beginning ideal for my area seemed development based on multi-functional blocks - providing the missing order, intensity and feeling of the city.

Achieving goals and blocks-base development were my concept.

1. Eliminate barrier of Rohanské nábřeží

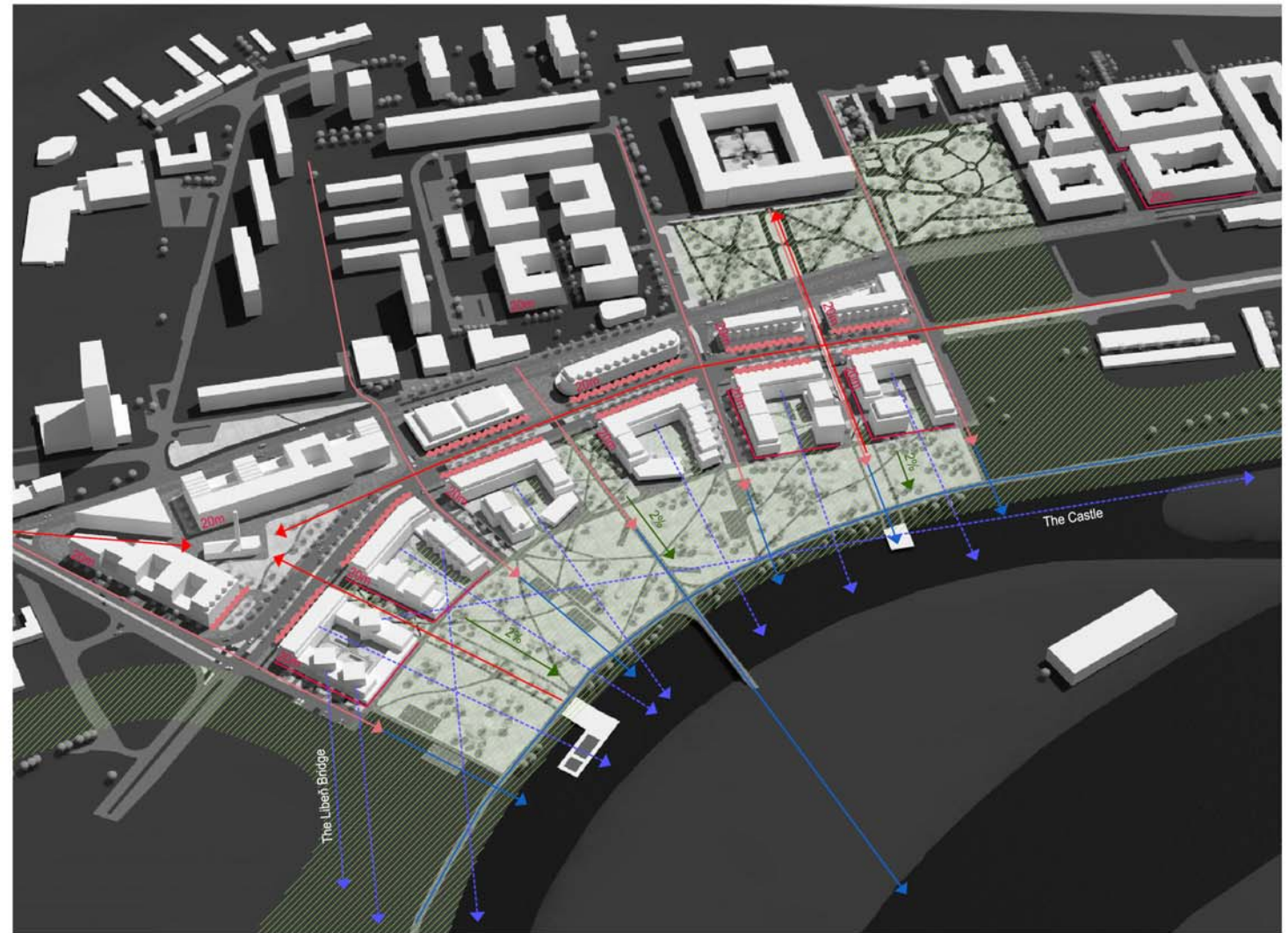
Nowadays, Rohanské nábřeží is the number 1 barrier in the area. People do not perceive the territory on the other side. They ignore it. Life ends from Rohanské nábřeží to the north. But one side has the subway and the other has the river, it is a very promising constellation, the link and uniting the character of the both sides of the boulevard are missing.

2. Open public access to the riverfront as a social and environmental amenity

There is the river to the north of the tube and it is not visible, there is no reference to it, no connection. For the general public, the main solution represents once again an access road. For residents it is orientation of the day zones of the flats towards the river, releasing solid facades and turning them a bit in the directions of unique perspectives - the river, Libeň Bridge, The Castle...

3. Create a friendly urban structure

Compliance of this goal has many factors. Important for me were mainly multifunction, human scale and easy orientation. In the next step of designing it would be materials.



4. Restoring and protecting landscape and natural systems

The river originally flowed on the territory. Nowadays the river from time to time recalls its demands by unpleasant flooding. Water is dynamic and the river needs its space. My development ends with the line of blocks to the north of Rohanské nábřeží. I overtake a new riverbed from the city master plan. I limit the access to the newly created island with a single bridge to interfere less with natural processes associated with the river.

The area is disturbed by added soil during the tube construction - natural living water runoff from the hills to the valley and the river does not work. I restore it to the north of Rohanské nábřeží as much as possible. I open a large area yards of blocks towards the river.

5. Create a riverfront identity that represents a good address in the city

This goal is a byproduct of the compliance of the previous goals.

Goal 1: Eliminate barrier of Rohanské nábřeží

- continuity of local connections
- unifying the character of the both side of the road

Goal 2: Open public access to the riverfront as a social and environmental amenity

- linear connections
- visual connections

Goal 3: Create a friendly urban structure

- similar block size
- 20m block height
- orientation views

Goal 4: Restoring and protecting landscape and natural systems

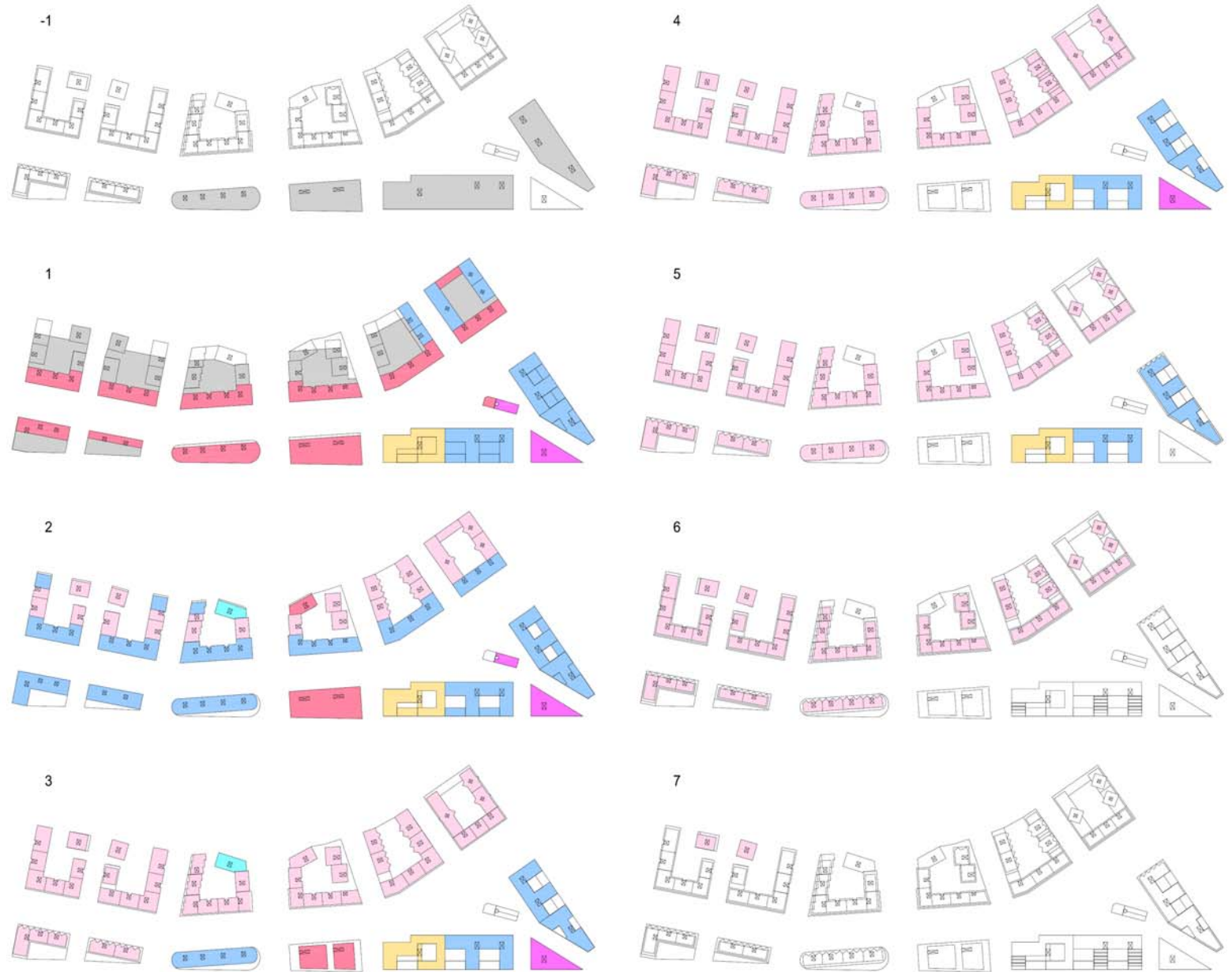
- the river penetrating the city
- slope to the river



DESIGN I

_FUNCTIONS

- apartments
- retail
- cultural facilities
- preschool
- offices
- hotel
- parking + storage



0 100m





SITE PLAN
1:1000

- designed buildings
- existing buildings
- paved walkways
- pro-growth paving
- gravel walkways
- maintained grass
- water surface
- designed/existing trees
- main entrance/garage entrance
- private garden
- subway station
- tramway strip
- tram stop
- bus stop
- existing contour lines
- designed special land formation

0 10m

A

B

C

B

C

B

A

Sokolovská

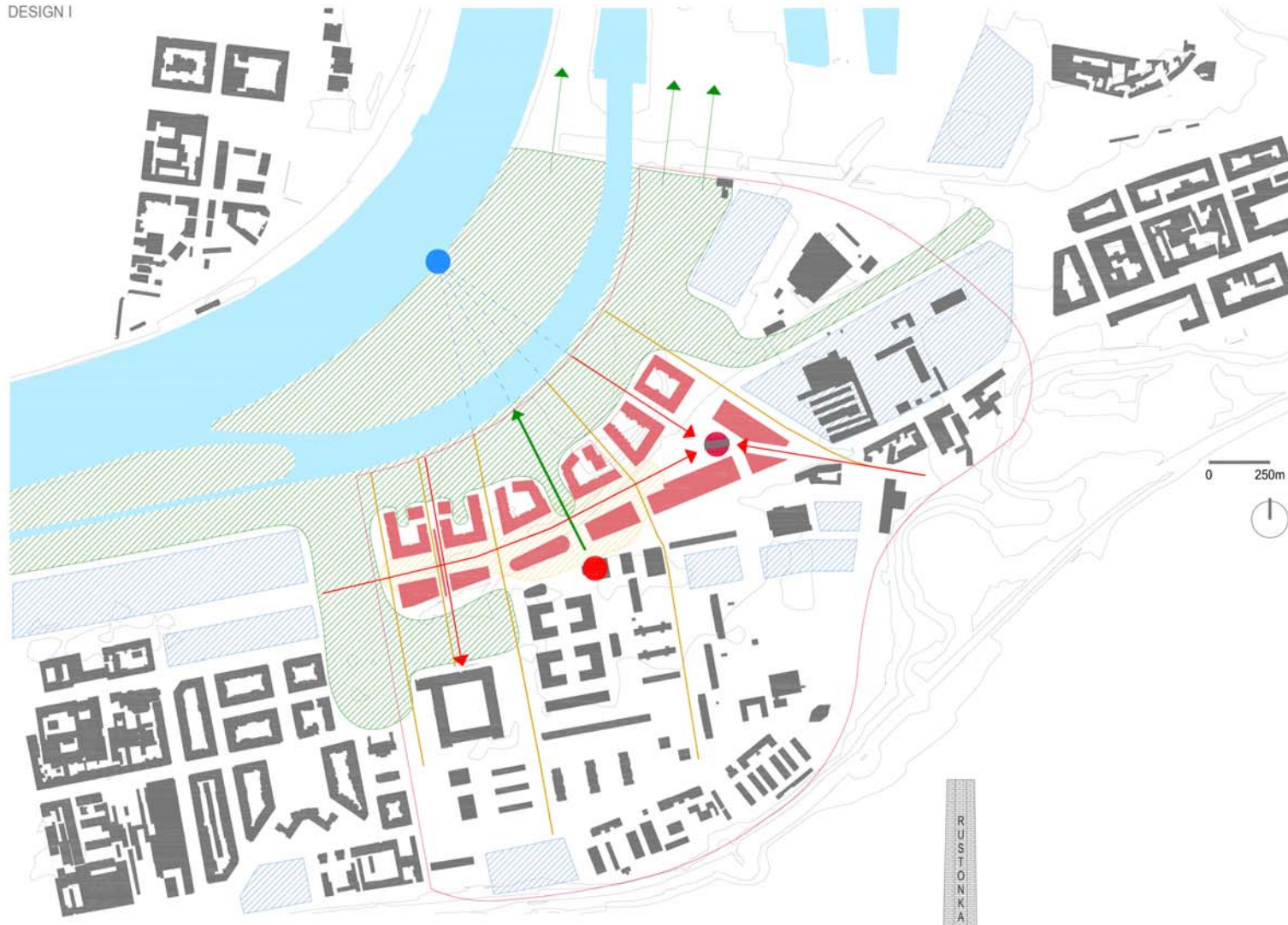
Za město

Rohanekův nábreží

Sokolovská

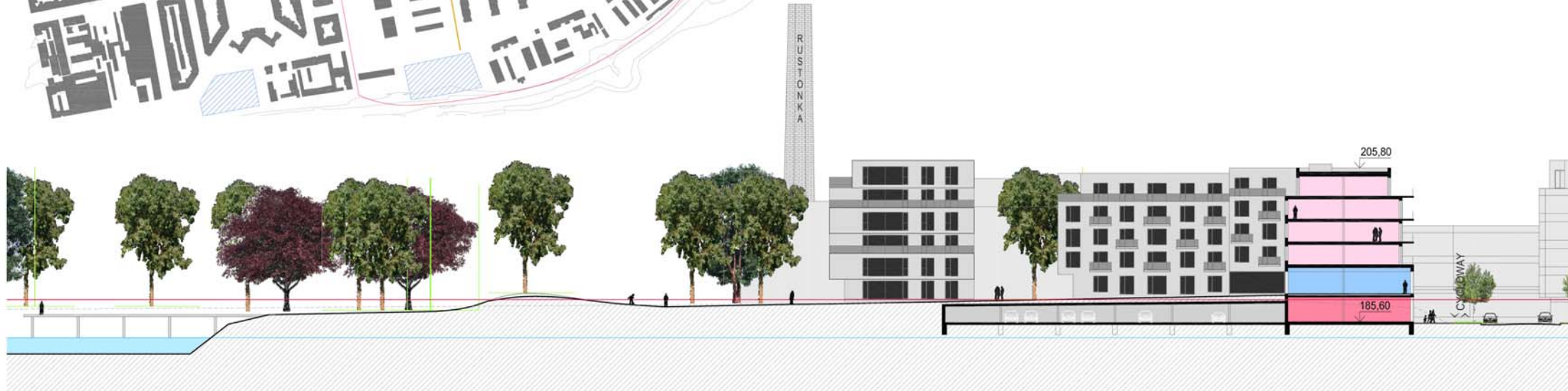
M

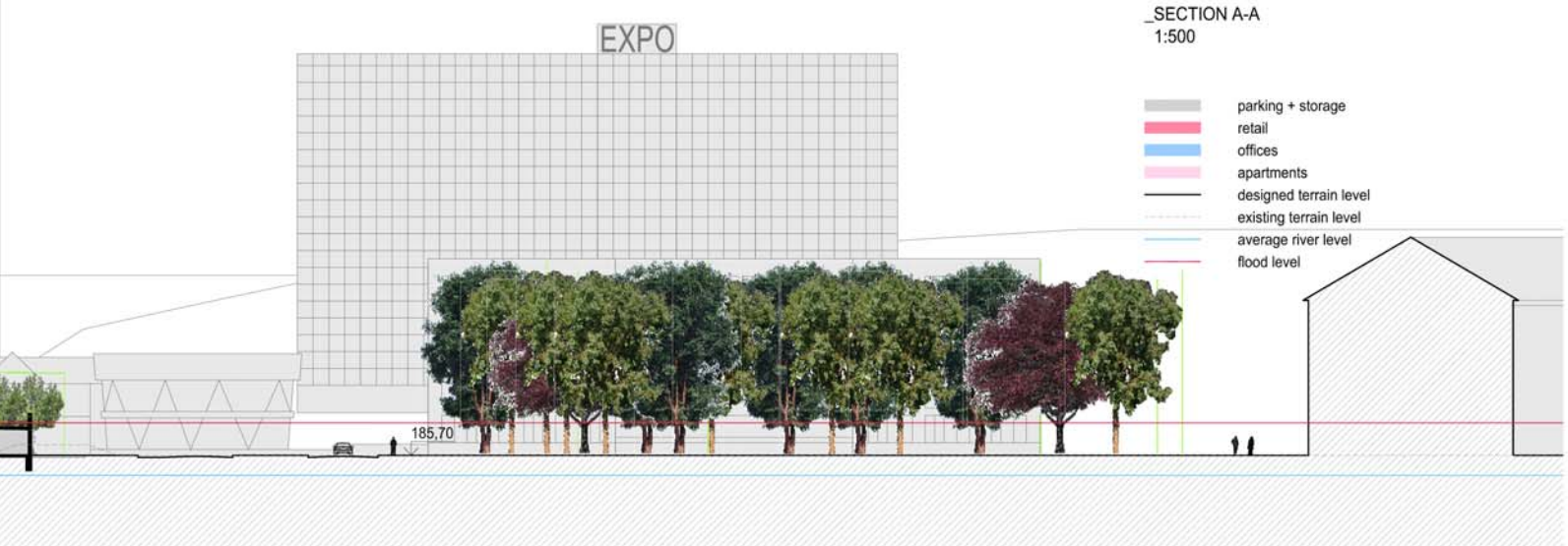
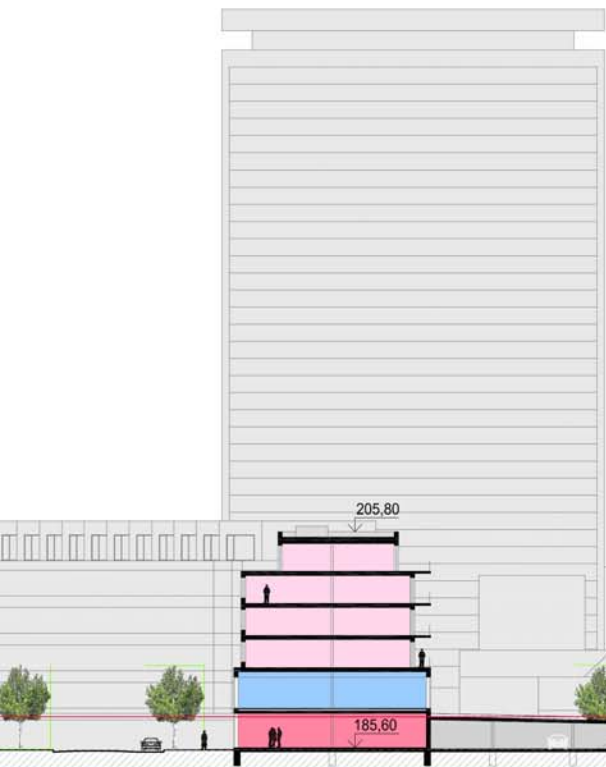
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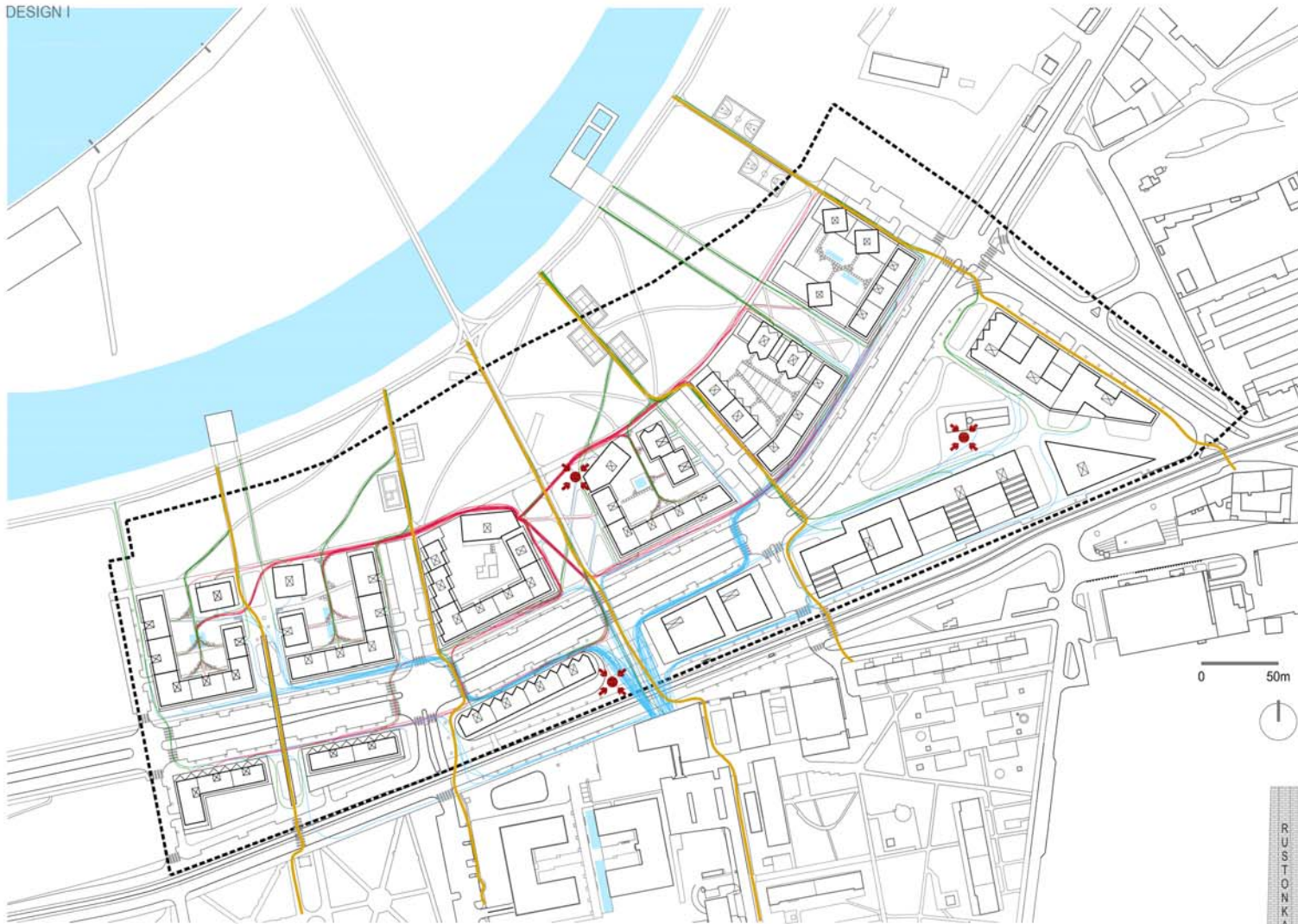


_CONTEXT ANALYSIS






- subway station
- underground-river connection
- continuity of local connections
- views
- recreational area of the whole city importance
- high important public space
- local centre-feature with its area of influence
- construction possibilities (avoiding the river bank)
- monument opportunity

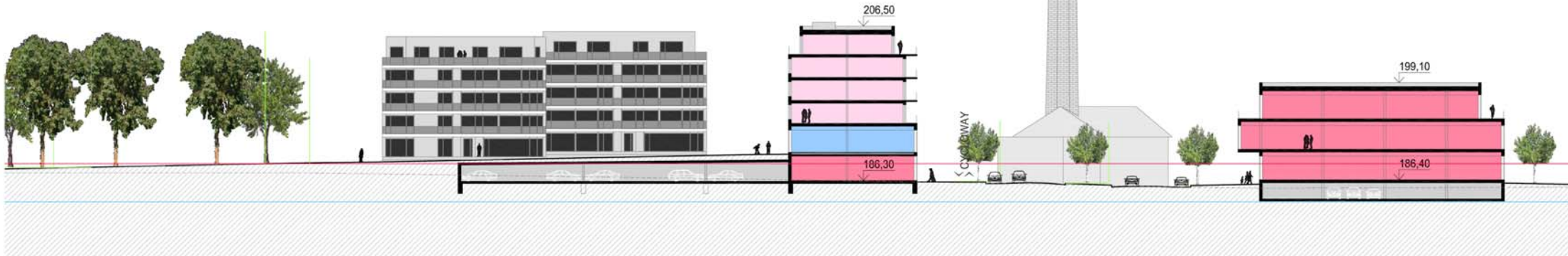






_URBAN OCCUPANCY

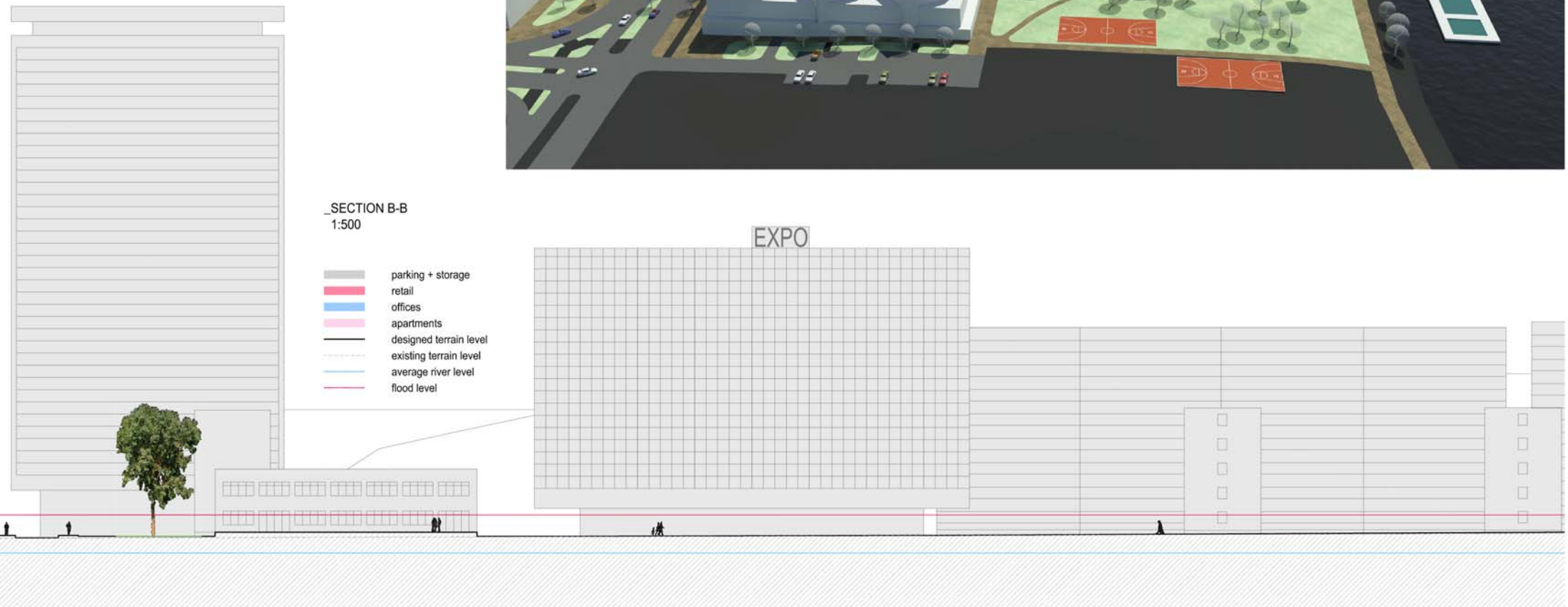
-  the underground connection
-  the preschool connection
-  the shortest river connection
-  the shortest river connection of the neighbourhood
-  meeting points

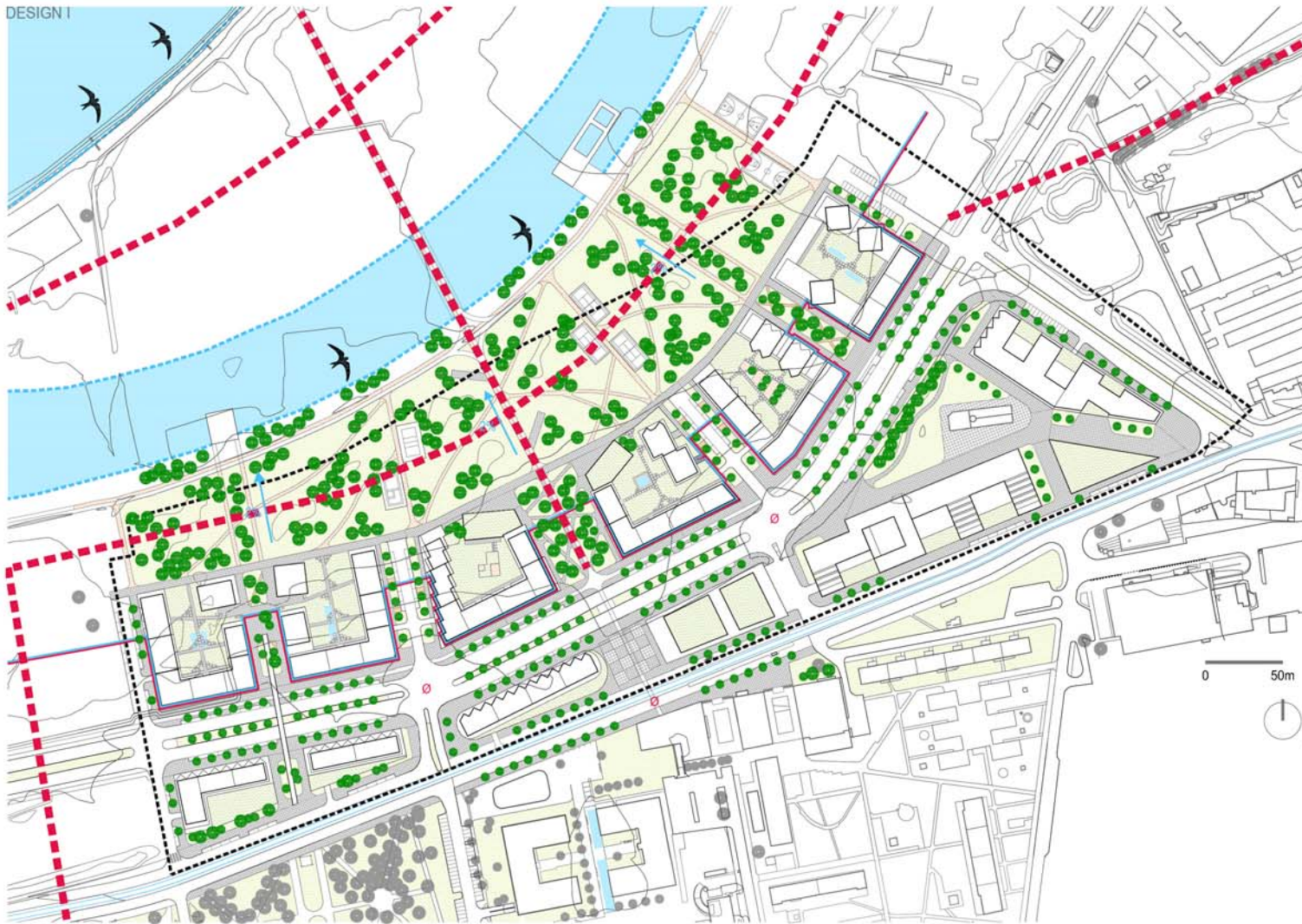
















_SECTION B-B
1:500

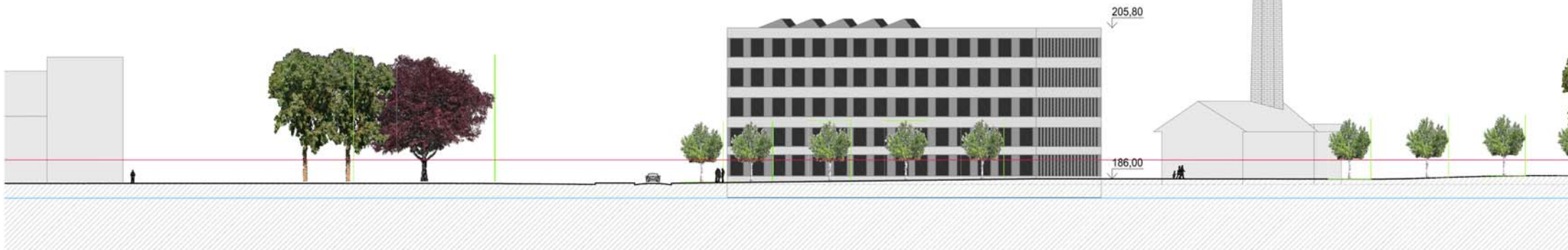
- parking + storage
- retail
- offices
- apartments
- designed terrain level
- existing terrain level
- average river level
- flood level





_ECOSYSTEMS

-  paved walkway
-  pro-growth paving
-  gravel walkway
-  maintained grass
-  green roof
-  water surface
-  designed/existing trees
-  expected significant concentration of birds
-  unconsolidated bank
-  main green axis
-  natural rainwater absorption - area sloping to the river
-  artificial rainwater absorption





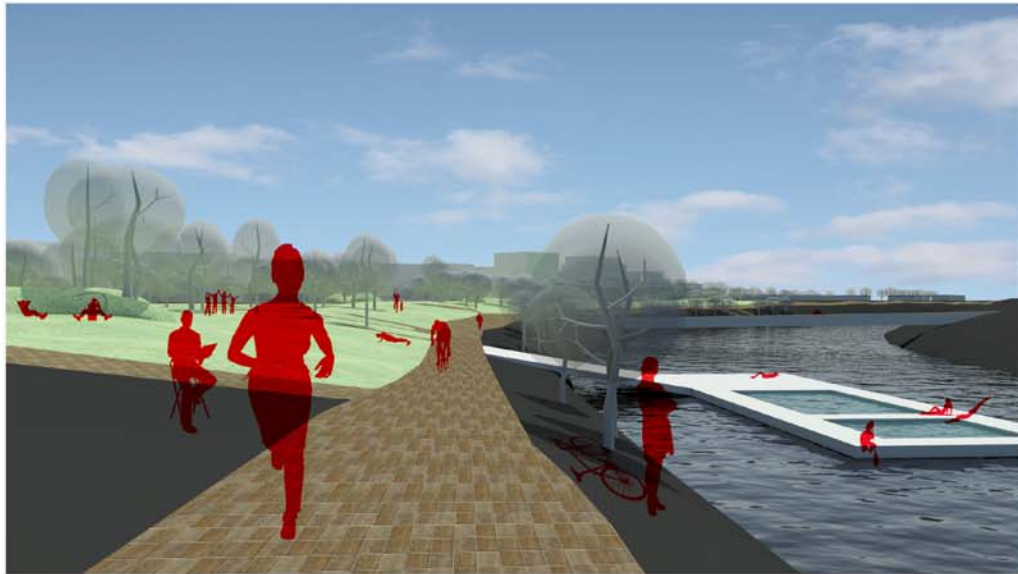
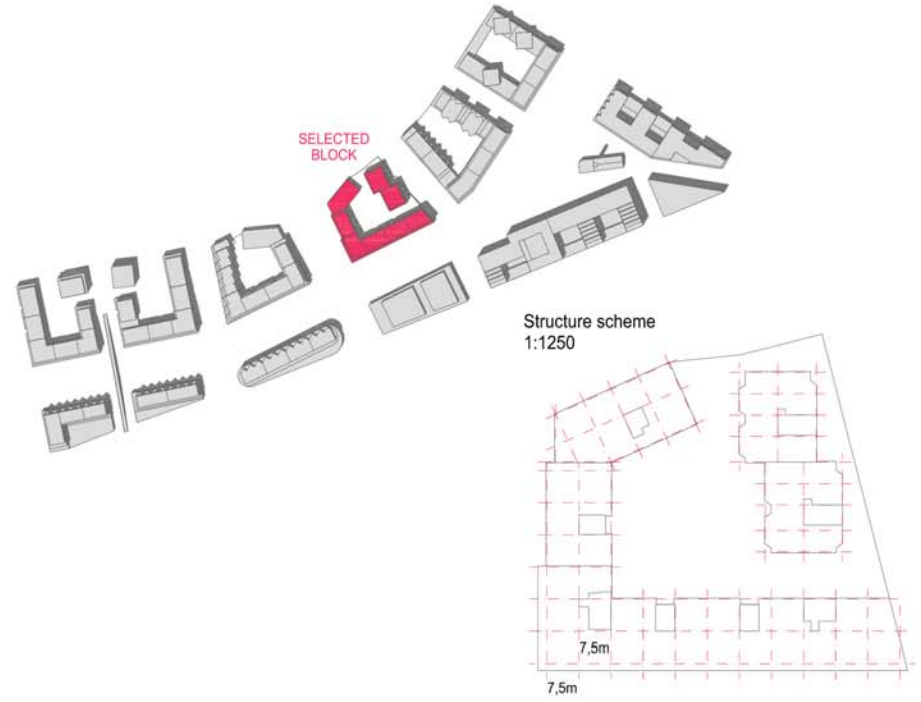
_SECTION C-C
1:500

- parking + storage
- retail
- offices
- apartments
- designed terrain level
- existing terrain level
- average river level
- flood level

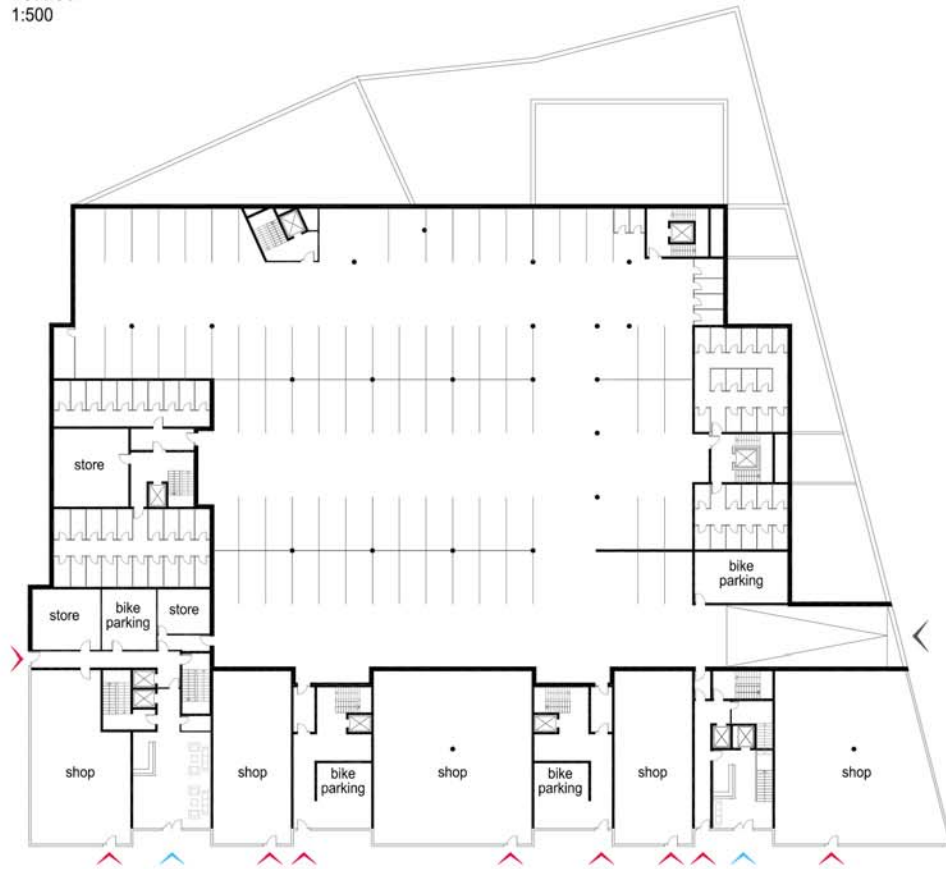




DESIGN II



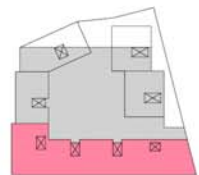
1st floor
1:500






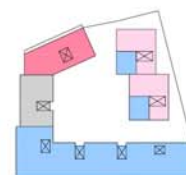
2nd floor
1:500



0 10m



-  parking + storage
-  retail
-  office/residential/garage entrance

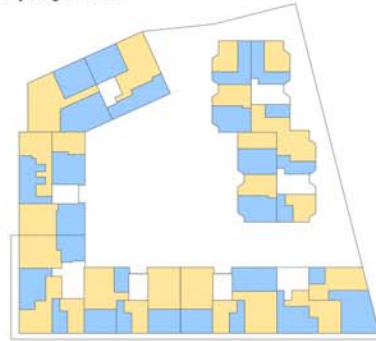


-  technical rooms
-  retail
-  offices
-  apartments
-  office/residential entrance
-  private garden

Apartments scheme



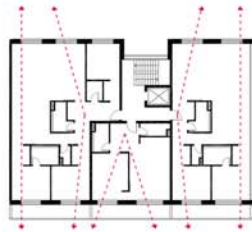
Day&night zones



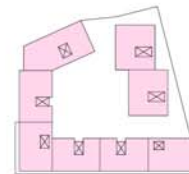
Main typology principles _circulation



Main typology principles _visual possibilities

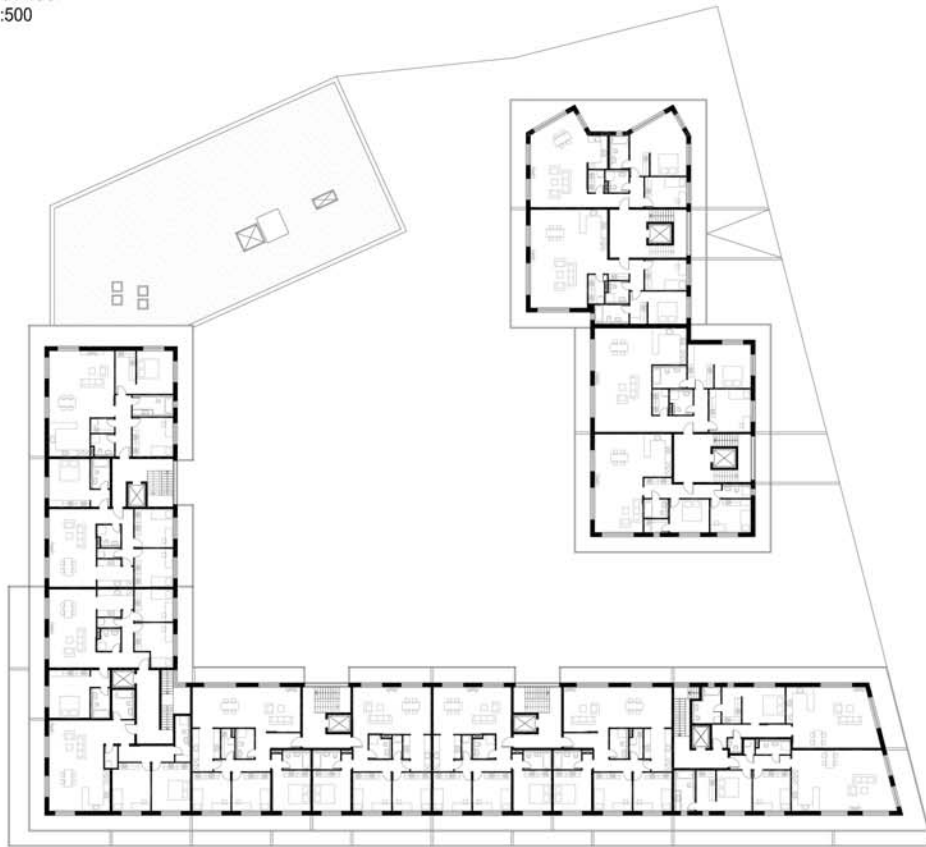


3rd floor
1:500

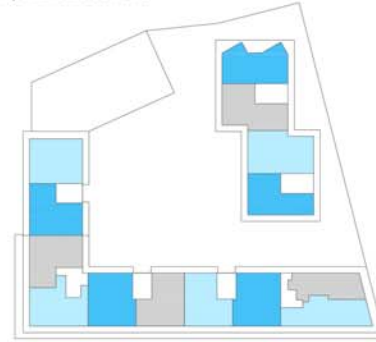


- apartments
- day zone
- night zone

6th floor
1:500



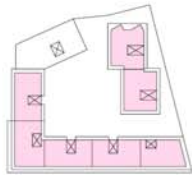
Apartments scheme



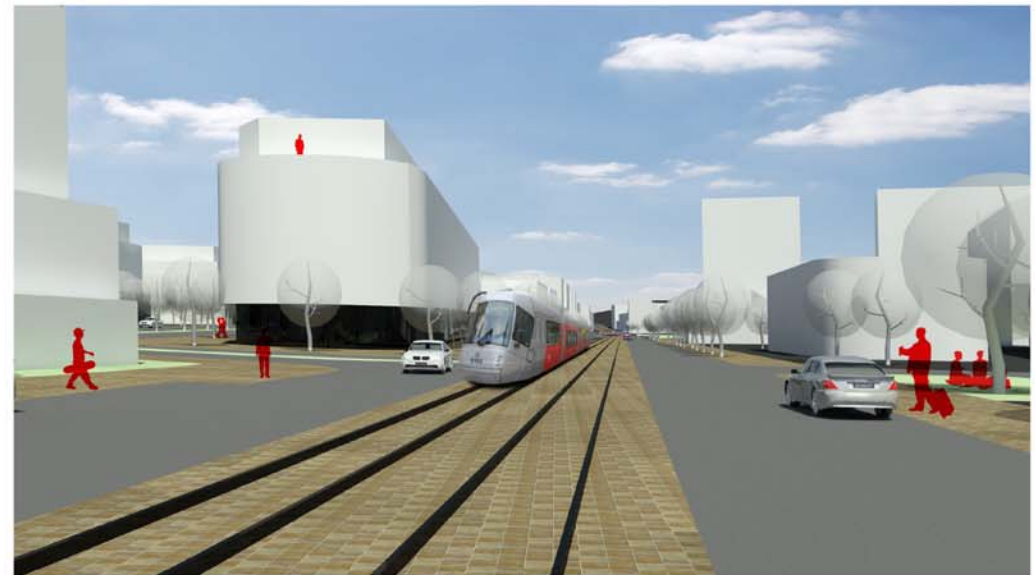
Day&night zones



0 10m



- apartments
- day zone
- night zone



**ČESKÉ VYSOKÉ UČENÍ TECHNICKÉ V PRAZE
FAKULTA ARCHITEKTURY**

AUTOR, DIPLOMANT: Kristýna Sedláková
AR 2011/2012, ZS

NÁZEV DIPLOMOVÉ PRÁCE:
PŘEMĚNA ROHANSKÉHO NÁBŘEŽÍ – ŽIVOT U ŘEKY

CONVERSION OF ROHANSKÉ NÁBŘEŽÍ – LIFE BY THE RIVER

JAZYK PRÁCE: angličtina

Vedoucí práce:	Henry W. A. Hanson, M.A., AIA, ASLA Ústav prostorového plánování	Ústav: 15121
Oponent práce:	Ing. arch. Marcela Bílková	
Klíčová slova (česká):	Karlín, řeka	
Anotace (česká):	V pražském Karlíně došlo v poslední době k mnoha změnám, zejména po povodni v roce 2002. Tyto změny jsou komplexní, v rámci již existující i nově vznikající dopravní infrastruktury. Tento projekt se snaží docílit rovnováhy a konečného sjednocení jednotlivých složek prostředí a navrhnout nový vývoj mezi řekou a stávajícím okolím. Základem návrhu jsou aspekty trvale udržitelného rozvoje.	
Anotace (anglická):	The Karlín district of Prague has recently seen rapid change, particularly since the flood of 2002. These changes are cumulative and in the framework of previously existing and new transportation infrastructure. This project seeks to balance and unify the different components of the surroundings and propose a new development between the river and the existing neighborhood. Fundamental to this proposal are considerations of sustainability.	

Thanks to Henry Hanson, my family, Kamila Samková, Michaela Hojovcová and Filip Šauer.

Kristýna Sedláková
Doubravčická 11/2126
100 00, Praha 10

ksedlakova@centrum.cz
+420 728 649 356

Prohlášení autora

Prohlašuji, že jsem předloženou diplomovou práci vypracoval samostatně a že jsem uvedl veškeré použité informační zdroje v souladu s „Metodickým pokynem o etické přípravě vysokoškolských závěrečných prací.“

V Praze dne 6. ledna 2012

podpis autora-diplomanta