

BRNO UNIVERSITY OF TECHNOLOGY

Faculty of Architecture

BACHELOR'S THESIS

Brno, 2024

Adriana Hauke



BRNO UNIVERSITY OF TECHNOLOGY

VYSOKÉ UČENÍ TECHNICKÉ V BRNĚ

FACULTY OF ARCHITECTURE

FAKULTA ARCHITEKTURY

DEPARTMENT OF DESIGN

ÚSTAV NAVRHOVÁNÍ

MIX/MATCH

MIX/MATCH

BACHELOR'S THESIS

BAKALÁŘSKÁ PRÁCE

AUTHOR

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MArch Ryan Manton

BRNO 2024

Assignment Bachelor's Thesis

Project no.: FA-BAK0017/2023
Department: Department of Design
Student: **Adriana Hauke**
Study programme: Architecture and Urban Design
Field of study: no specialisation (till 2022)
Supervisor: **MArch Ryan Manton**
Academic year: 2023/24

Title of Bachelor's Thesis:

Mix/Match

Bachelor's Thesis:

“Mixed use is what cities are all about. If you don't have mixed–use, you don't have cities.” Joseph Rykwert

Where do you live and how do you live? Cities including Prague and Brno are experiencing a housing crisis – not enough housing, not enough options, and increasing rents. Although most cities need more conventional housing for families, there is a large percentage of people in which flexible, temporary housing may be ideal. Students, graduates, young professionals, visiting workers, and tourists all need a place to call home, just not one that is permanent or expensive. At the same time, bringing these people together in one place can create connections between different professions, cultures, and ages and create a talent hotbed for a city. Providing people who do not need permanent housing with an alternative, helps to free up conventional housing for those who do. Cities need a range of housing options for different needs and new models of housing can fill the gaps that exist – how can we mix up housing to include other amenities, and match it with people who need it?

The bachelor thesis will envision an innovative, mixed–use housing solution in Prague providing a temporary, flexible, affordable, and enjoyable place to live, connected to regional transport. Co–living was a popular term for an old concept before the pandemic, what has changed since then, and how can the idea be re–launched for the decade ahead? Bringing a range of people together from different fields, we will have a broad conversation regarding the needs of the city together with the realistic viability of our ideas. Looking at pan–European examples – we will examine, evaluate, and propose new solutions that both challenge the norm whilst at the same time being pragmatic with our outcomes. The site for this thesis is based in Prague near Hlavni Nadrazi station – located on Kunětická in Prague 2, the site sits between railway lines, Riegrovy Sady Park, a large villa, and a recent residential development. The site itself contains a building hosting various businesses and a tennis club.

Graphics scope :

The main goal of the bachelor thesis is an individual assignment to develop an architectural

concept for the given site that works with the urban context – the outcome should be a mixed-use building in which most of its space (approximately 75%) is dedicated to residential use. The other parts of the building can be devoted to whatever use you consider to be required at the site. The proposal should include a new-build building and may include plans for demolition or integration of the existing building on the site. The proposed building should consist of three storeys in addition to a basement and depending on your analysis of the site could either utilize the existing building footprint or use the adjacent space where the tennis courts are located, if you wish to relocate or integrate them.

1. URBAN CONTEXT

Clearly arranged location plan documenting the connections of the designed building to the urban structure of the locality (scale, 1:5000).

2. ARCHITECTURAL DESIGN

Standard set of drawings that correspond with architectural design (study): site plan; floor plans of all levels; sections – at least two; elevations of all facades; spatial design (perspectives, visualizations...) (scale according to the character of the assignment – 1:100; 1:200...).

3. INTERIOR

Individual design of a selected detail including materials (scale – 1:50; 1:20; 1:10 according to the character of the assignment).

4. STRUCTURAL-TECHNICAL DESIGN

o Cross-section through the proposed building in the scale 1:100 (or 1:50). The drawing will represent the foundation of the building, connection to the terrain, protection from the weather and elements, structural arrangement of the building, and roofing. The main structures will have specified the assemblies (namely the assembly of the floor on the terrain, above unheated storey, assembly of roof skin, and external and basement walls...). The cross-section will contain the annotation of volumes, the legend of materials and basic dimensions.

(As defined by the supervisor – the cross-section of the construction detail in the scale 1:10 (1:5) complemented with technical description.)

o Schematic axonometric visualisation of the load-bearing structure of the designed building including material solution.

5. REPORT

o Introductory information – identification of the building.

o Author's report in scope of 2 standard pages.

o Technical report (basic information characterising the development and its future operation; overview of the initial data and materials and the compliance with them; justification of the design goals; design conception; architectural concept of the design; comprehensive technical report). In the technical description, students will provide structural design, supply with energies, technical equipment of the building, and will justify the structural and architectural design, will evaluate the building in terms of sustainable development, and will estimate the total building costs of the building.

6. PHYSICAL MODEL

List of literature:

All Together Now: The co-living and co-working revolution (ISBN: 9781648960277)

Architecture in Context: Contemporary Design Solutions Based on Environmental, Social and Cultural Identities (ISBN: 9788416851720)

Building and Dwelling: Ethics for the City (ISBN: 978-0713998757)

Housing Atlas: Europe - 20th Century (ISBN: 9781848225879)

Living Over the Store: Architecture and Local Urban Life (ISBN: 9780415783170)

Mixed-Use Development Handbook (ISBN: 9780874208887)

Social Value in Architecture (ISBN: 9781119576440)

Together by Design: The Art and Architecture of Communal Living (ISBN: 9781648960277)

Date of project specification Bachelor's Thesis: 5.2.2024

the deadline for submission for the Bachelor's Thesis: 6.5.2024

Bachelor's Thesis is submitted in the scope determined by the project supervisor; in addition, one B1 exhibition panel and Bachelor's Thesis in electronic form are submitted.

Adriana Hauke
student

MArch Ryan Manton
project supervisor

Ing. arch. Vítězslav Nový
head of the institute

In Brno dated 5.2.2024

Ing. arch. Radek Suchánek,
Ph.D.
Dean

AFFIDAVIT

I declare that the submitted work is my original work, which I have produced independently.

Brno, 06/05/2024

ACKNOWLEDGEMENTS

I would like to thank the supervisor of my bachelor thesis MArch Ryan Manton, for insightful and kind guidance, prof. Ing. Josef Chybík, CSc. and Ing. Táňa Švecová for expert consultations and Ing. arch. Jan Foretník, Ph.D. for useful advice.

Finally, i would like to thank my family and friends for their support.

ABSTRACT

The project is centered around architectural design of a mixed-use building primarily tailored for residential purposes, with a specific focus on student accommodation. This decision is grounded in a thorough analysis of the surrounding area.

I am proposing a design that integrates tennis club already existing on the site while introducing new functional elements. These include a café/bar, study spaces, interior sport hall with a padel court and a hostel. One of the tennis courts is on the ground and one is on a roof of the building.

In my proposal, I am opening the site more to the public, allowing anyone to enjoy the views and atmosphere it offers, thereby creating a place for a community.

KEY WORDS

mix-use, housing, students, sport, tennis, community, passage, public space

AUTHOR'S REPORT

URBAN CONTEXT

Situated atop a hill in the district of Vinohrady, the site overlooks the main train station in Prague and sits adjacent to the city center. However, it is separated from the city by railway lines, lacking a direct connection. Despite this, it maintains a distinct charm, almost like a small town of its own with beautiful views of our capital. There is a new pedestrian tunnel leading directly from the Main train station to this side of the city, which opens it more for the people to walk to this side of the city more.

To the east of the site lies Riegrovy sady park, while to the west, there is an abandoned green space above the railway station. On the northern side sits an apartment complex, and to the south, you'll find the residence of the Egyptian embassy.

The site is not currently empty, the biggest part consists of a tennis club with 4 tennis courts. There is also a small three-storey office building and a PRE electricity station.

CONCEPT

The tennis club has a longstanding presence on the site and lacks an alternative location for relocation. Therefore, I aim to incorporate it into my design, ensuring the retention of at least two tennis courts. Given its involvement with children's programs, event hosting, and community engagement, I recognize its valuable potential, making it impractical to discontinue.

Another topic I looked into based on our previous analysis and because the site is close to the University of Business and Economics, was student housing in Prague. There is lack of it. There is a total of around 28380 beds in the purpose-built student accommodation for a total population of around 117059 university students.³

I decided to design student dormitory with the integration of the tennis club. I also added new functions such as a café / bar, hostel and a padel court for the possibility of also playing indoors.

The building opens up towards the site and the view over Prague. The entrance from the main street is framed with a passage bringing people in. That created two main volumes connected on one level with a gym that connects the hostel and the student housing.

PROGRAMME

As previously mentioned, the main part of the building consists of student housing, connected with that, there are dedicated study spaces, social/TV rooms, laundry and a reception.

In the other part of the building, on the underground floor, there is padel court that is two-storey high with spaces for the tennis club including a club room and storage, first floor has a café / bar with a terrace and the upper part of the padel court. On the second floor, there is a hostel with a gym connected to the student housing.

ARCHITECTURAL DESIGN

The form of the building reacts to the slope of the site, therefore the access to the different parts of it is from multiple levels. It allows for the entrances to the public areas from the upper street level, entrance to the tennis club from the upper part of the site and entrance to the garage from the lower street.

The shape and orientation started based on a size of tennis court, followed by another volume along the second street. I cut out the corner to create the passage and open the site towards the street. After inserting the volume for the student apartments, I created an outside corridor out of the rest of the mass. The corridor is big enough to also work as a social space – shared balcony for the tenants.

MATERIALS

The material used for the load-bearing construction of the whole building is reinforced concrete. Additional external construction elements are made of corten steel.

For the interiors to feel nice and comfortable and full of light, I am using mainly wood and glass.

The platforms in the landscape are also wooden.

STRUCTURAL DESIGN

The load-bearing structure consists of reinforced concrete columns, beams, walls and ceilings. The columns are dimension 300x300mm, walls have thickness of 250mm. The ceiling slabs are also 250mm.

The outside corridor is made out of corten steel U profiles.

TECHNICAL REPORT

FLOOR AREA BY FLOOR LEVEL

Garage	1850,9 m ²
Underground floor	1574,7 m ²
First floor	1311,2 m ²
Second floor	724,9 m ²
Third floor	1486,4 m ²
Total floor area	6947,9 m ²
Footprint	2048,8 m ²
Land area	5925,3 m ²
Volume	43000,8 m ³
Cost estimate	581 800 824 czk



MIX / MATCH

bachelor's thesis 2024

author: Adriana Hauke

supervisor: MArch Ryan Manton

annotation

The project is centered around architectural design of a mixed-use building primarily tailored for residential purposes, with a specific focus on student accommodation. This decision is grounded in a thorough analysis of the surrounding area.

I am proposing a design that integrates tennis club already existing on the site while introducing new functional elements. These include a café/bar, study spaces, interior sport hall with a padel court and a hostel. One of the tennis courts is on the ground and one is on a roof of the building.

In my proposal, I am opening the site more to the public, allowing anyone to enjoy the views and atmosphere it offers, thereby creating a place for a community.

key words

mix-use, housing, students, sport, tennis, community, passage, public space

affidavit

I declare that the submitted work is my original work, which I have produced independently.

Brno, 06/05/2024

acknowledgement

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CONTENT

URBAN CONTEXT

SITE

CONCEPT

DESIGN

PLANS

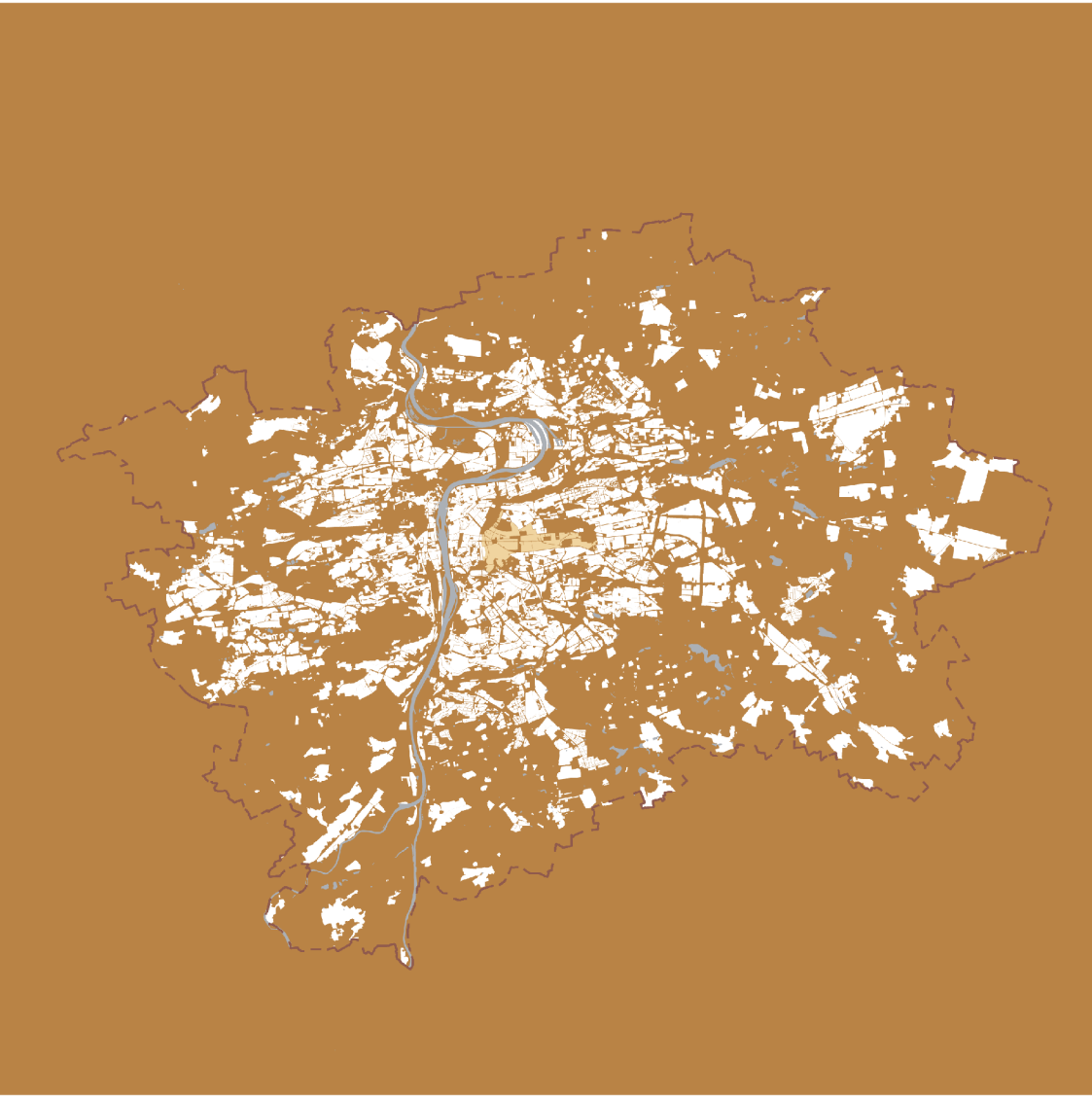
CONSTRUCTION

INTERIOR

URBAN CONTEXT

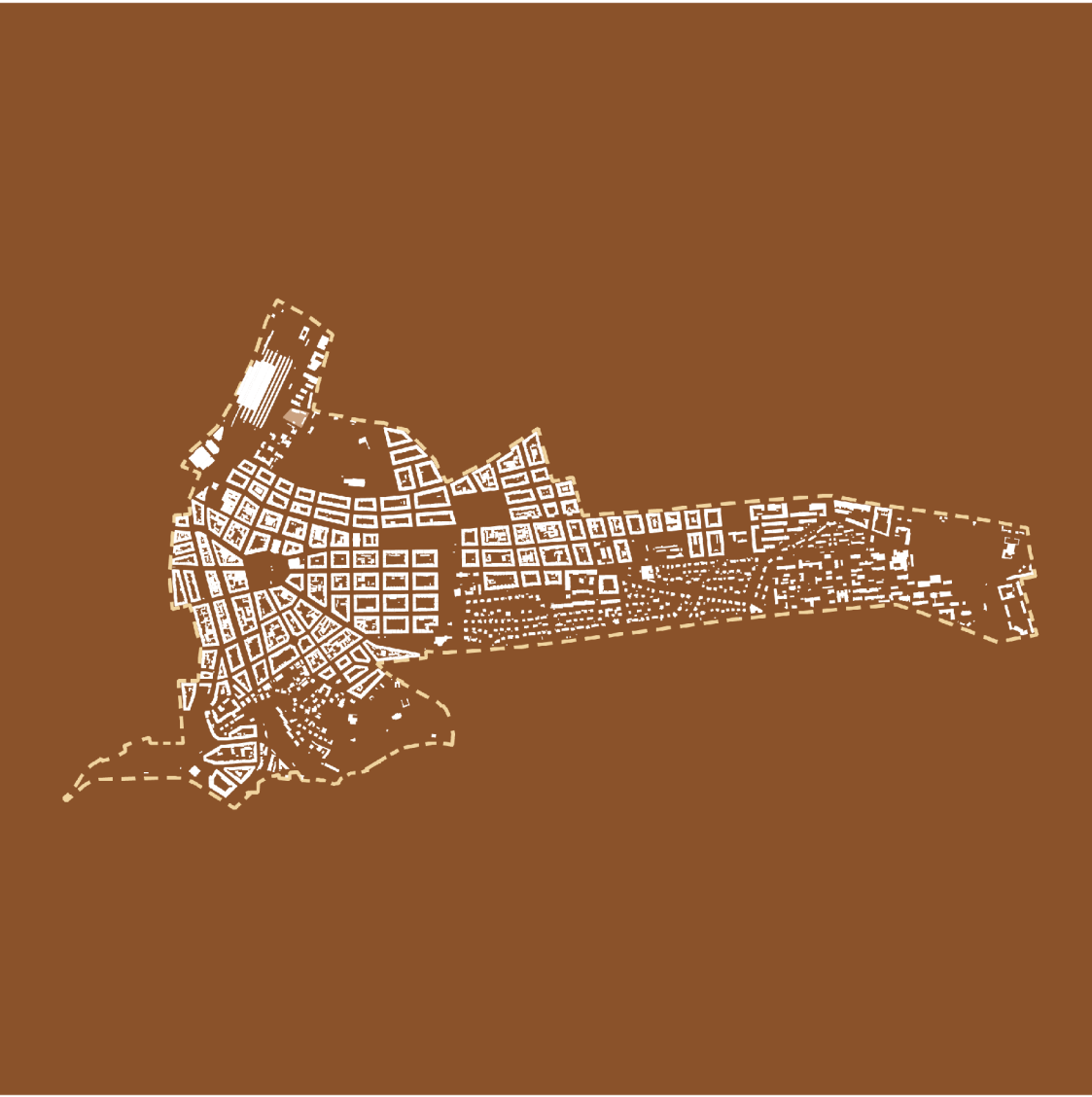
PRAGUE

The site is located in the centre of Prague, close to the biggest transport hub of the Czech Republic.



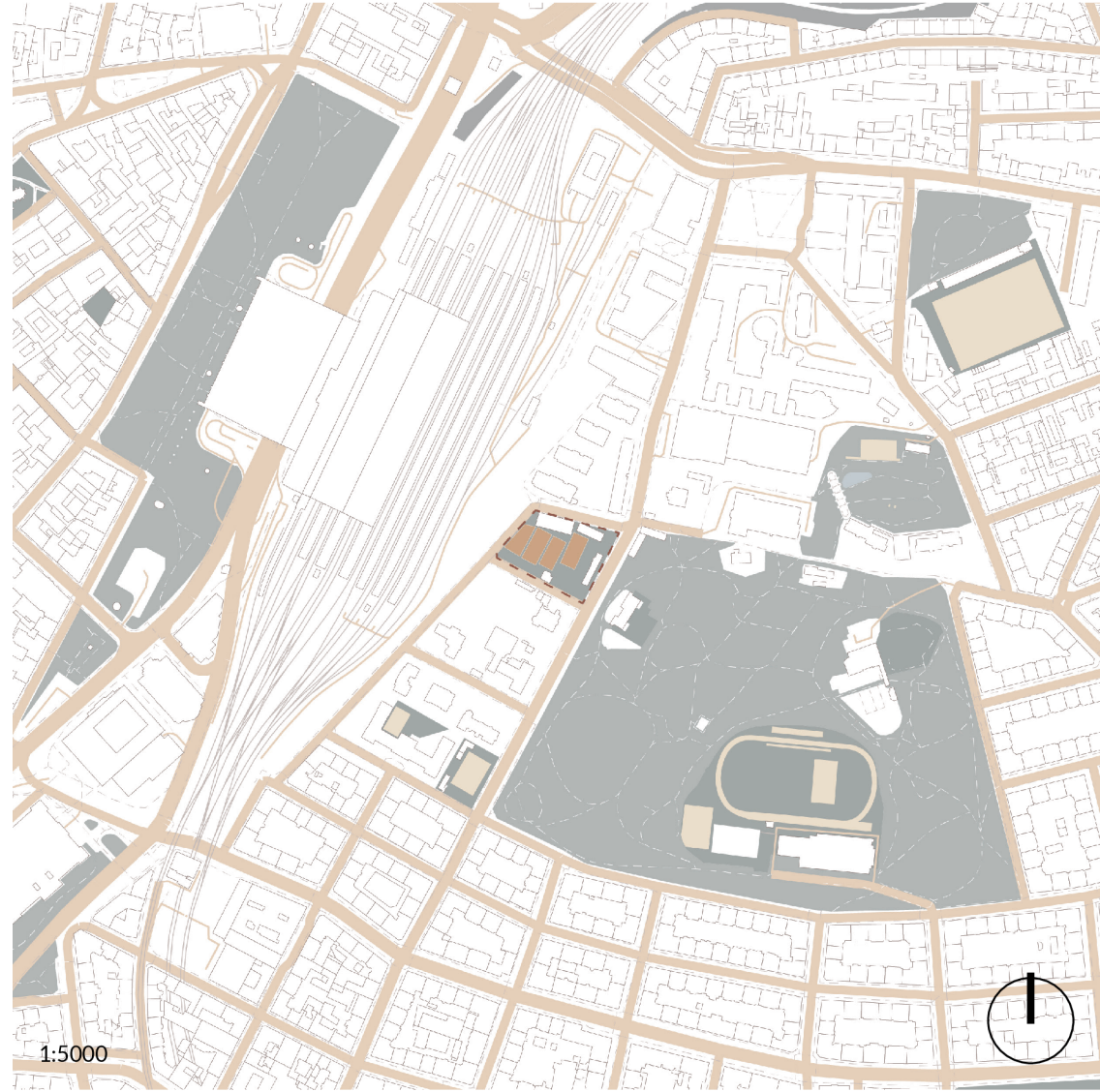
VINOHRADY

Situated atop a hill in the district of Vinohrady, the site overlooks the main train station and sits adjacent to the city center.



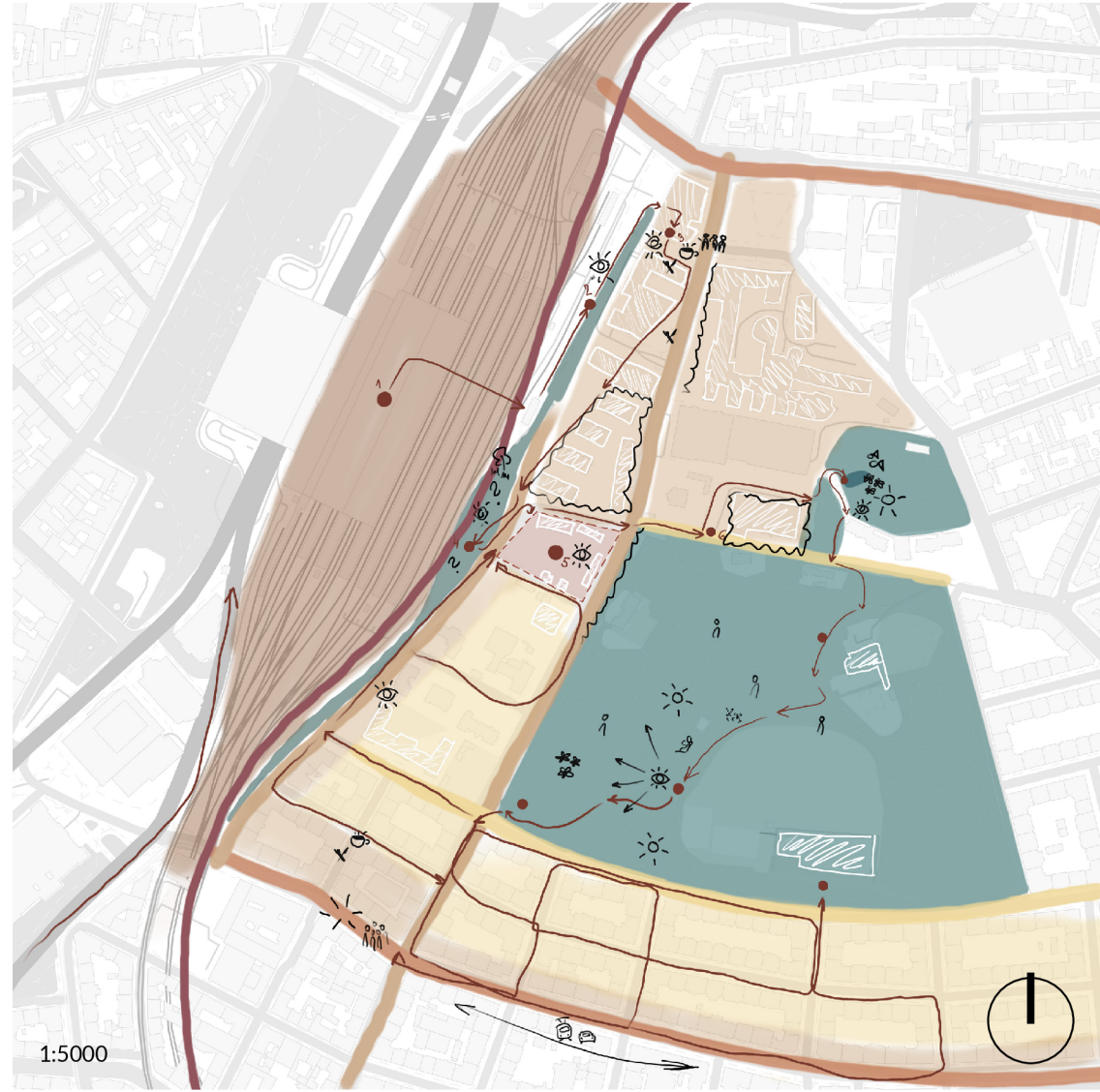
URBAN CONTEXT

To the east of the site lies Riegrový sady park, while to the west, there is an abandoned green space above the railway station. On the northern side sits an apartment complex, and to the south, you'll find the residence of the Egyptian embassy.



MENTAL MAP

While exploring the area, I was making notes about the character of the place. Since it is on a hill, there is lots of beautiful views. The whole area also has a lot of greenery which makes it a pleasant place to spend time and live in.



MENTAL MAP

In my mental map, I described 5 different characters of the places surrounding the site.

First one is the **area of new development** with lots of offices, students and mostly young people.

Second is **park Riegrovy sady** - natural and relaxing area.

Third is **residential area** full of apartment buildings with small cafes, bars, restaurants and shops.

Fourth is less densely built-up area with schools, kindergardens, polyclinic, embassies and villas.

And lastly, right underneath the site, there is abandoned greenery above the train station.

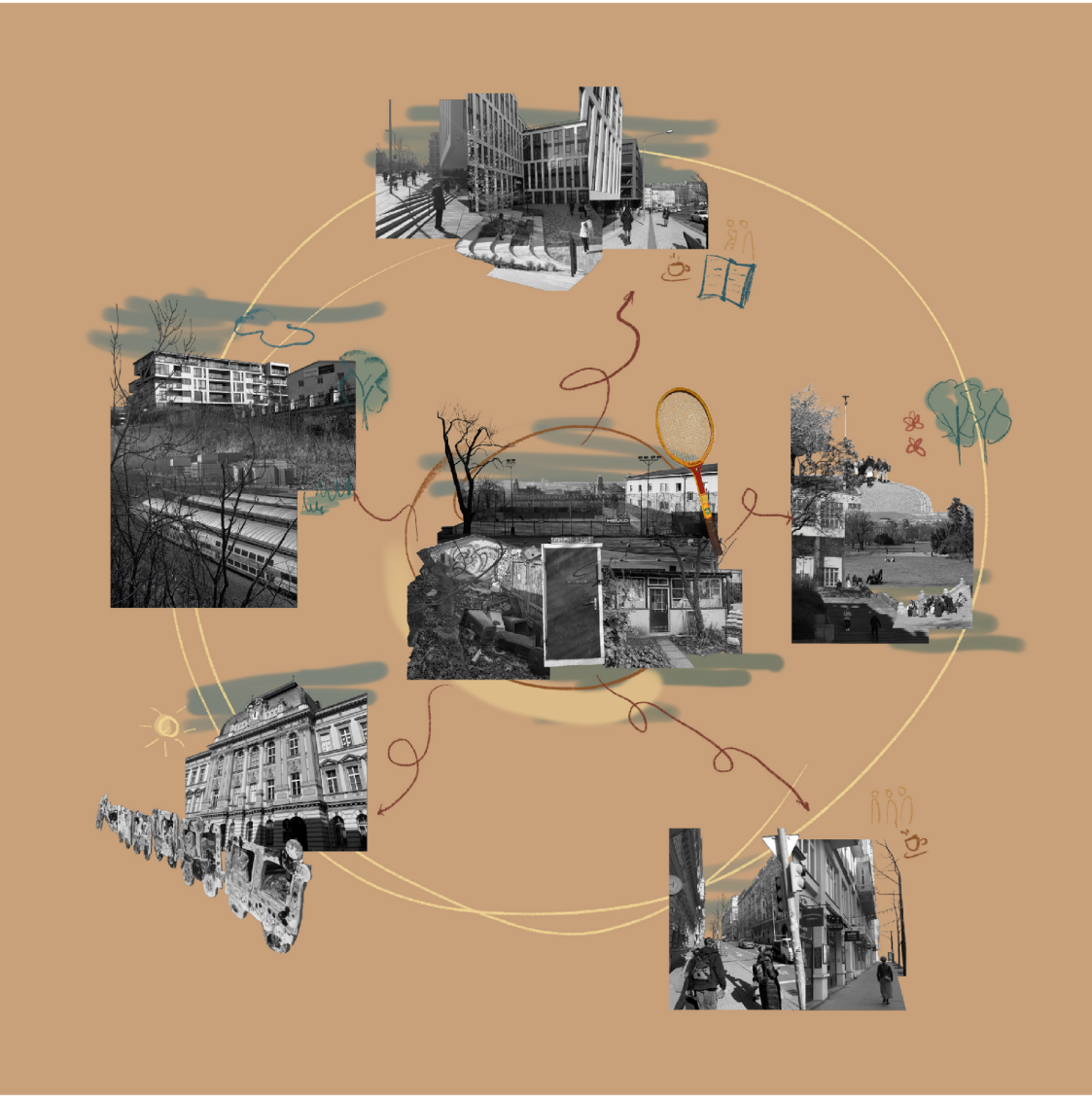
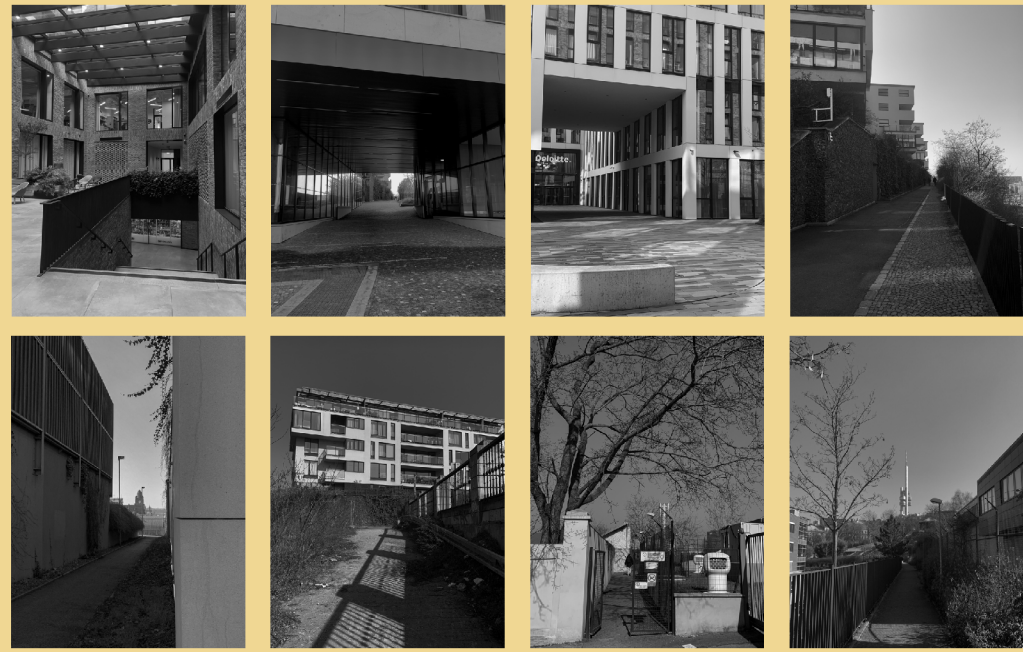


PHOTO ESSAY

passages

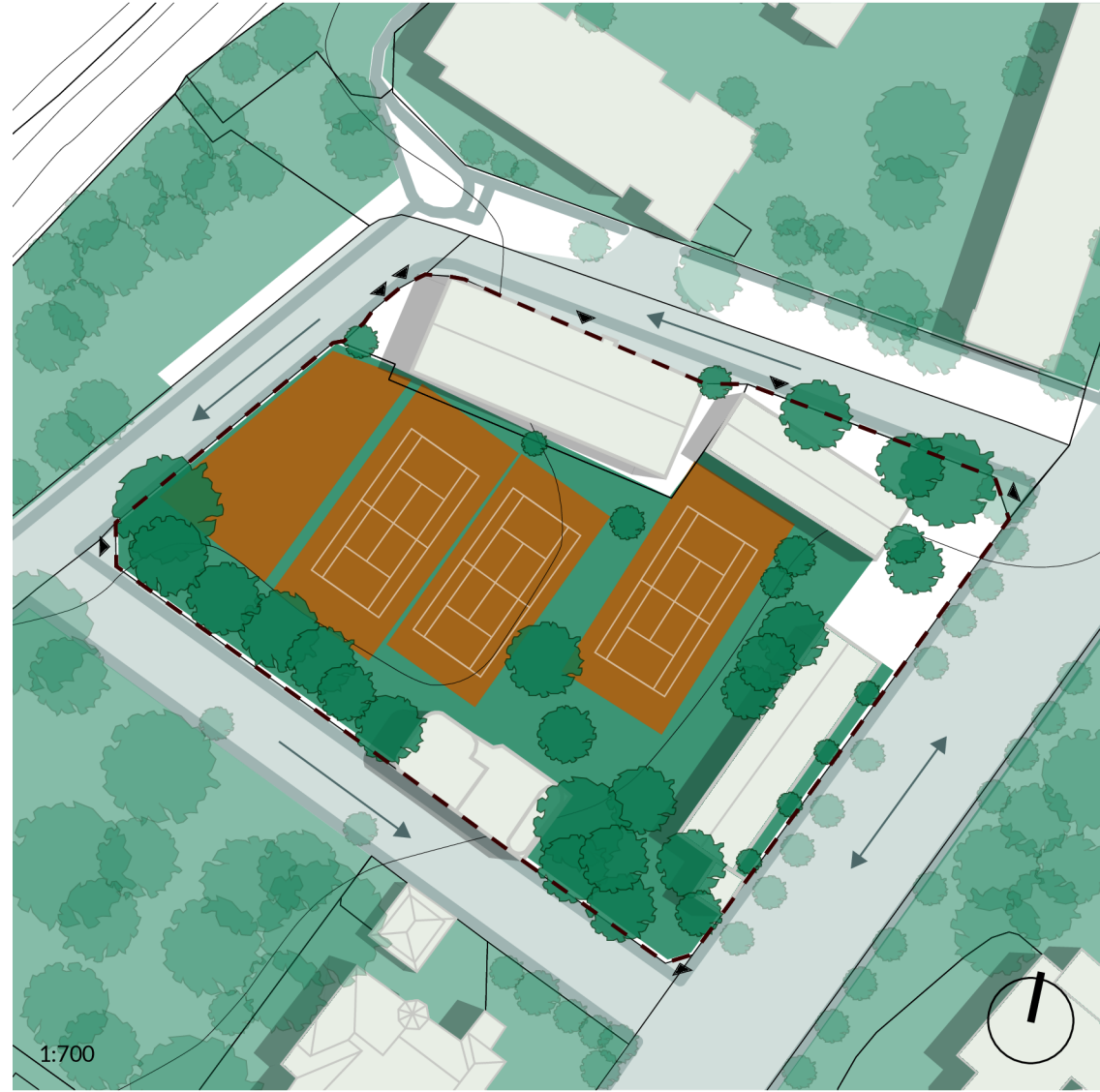
One of the features that I noticed and focused on in my photo essay were passages. I noticed multiple with different characters, some inviting, other not so much.



SITE

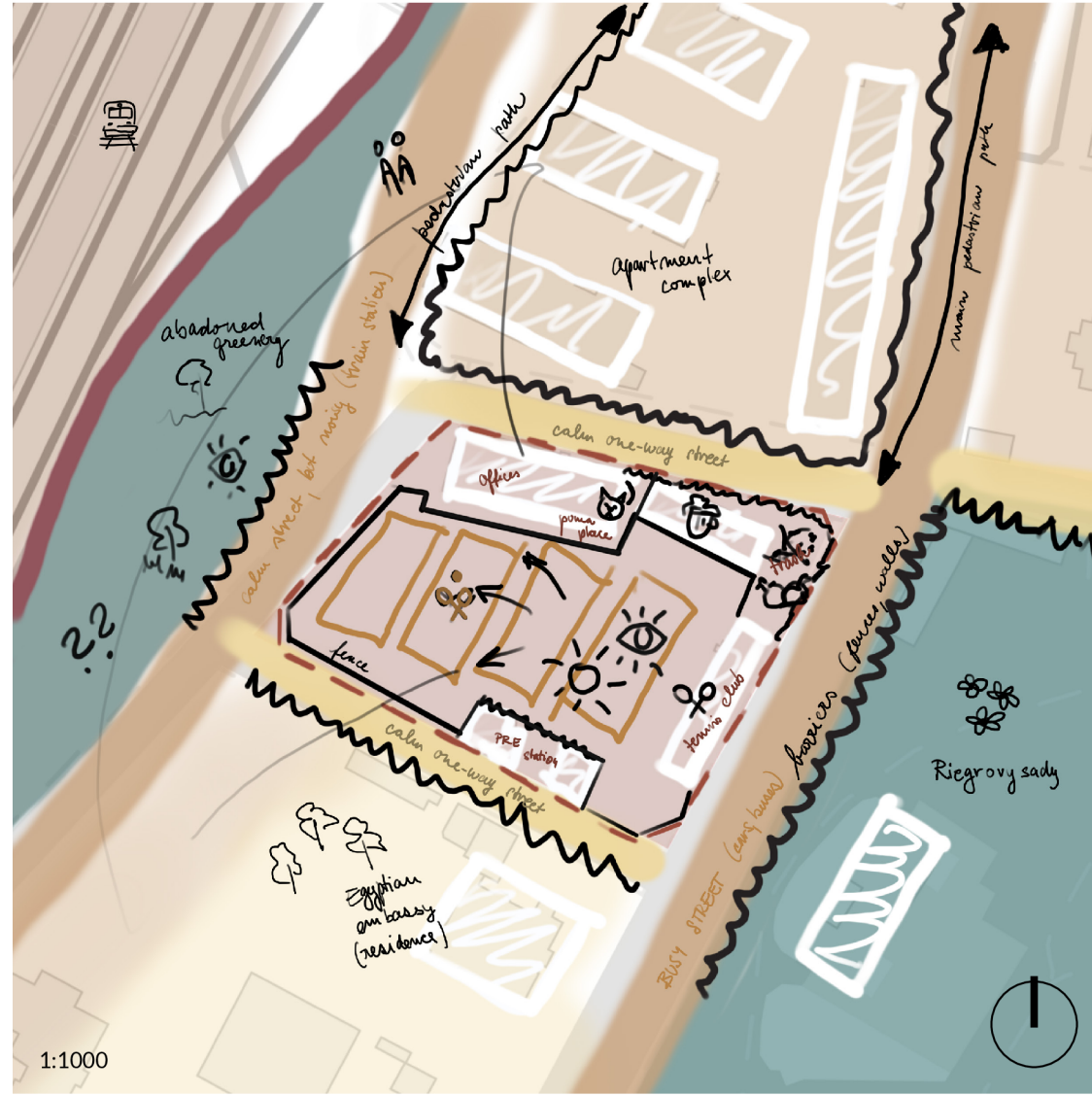
CURRENT SITUATION

The site is currently not empty, the biggest part consists of a tennis club with 4 tennis courts. There is also a small three-storey office building and a PRE electricity station.



MENTAL MAP

While mapping the surroundings, I also mapped the site.



CONCEPT

TENNIS CLUB



2

1

Tenisové kurty Vinohrady is feeling happy.
 Záštit město jinak je za námi!
 Srdce nám zapešalo když jsme sledovali nacížené tváře našich nejmenších v tenisové školičce. Byli jsme oddáni společně na štěstí a na smrt mezi Bohdanem Ullrichem a Karlem Nováčkem. A vše skvěle doprovázely tóny filharmoniky z našeho klubu.
 Chceme společovat všem, kteří se zapojili, najedli se nebo jinak přispěli k celé akci!
 Díky chrlatovému božárku a prologu občerstvení se vybralo vstřípných 20 384 Kč! Celou částku již byly předána handicapovaným tenistům, aby mohli pokračovat v tréninku a získávat de si úspěchy.
 Věříme, že se z tenisu na Vinohradech budeme společně těšit ještě mnoho let!
 Za organizační tým,
 Jirka, Filip, Klára, Marcela a Bára



2



2

Tenisové kurty Vinohrady
 Sep 6, 2023
 dte na naši tenisovou školičku a sledujte, jak vaše dítě je radost z tenisu! Tenisová školička pro děti 5-10 let pod m akreditovaných tenisových trenérů. Rezervujte si prosím sedem v online formuláři: <https://forms.gle/TmAxDG8e7VG7>

TENISOVÁ ŠKOLIČKA

Připravujeme kurt pro nejmenší! Rezervujte čas předem online.

9. ZAZÍT MÍSTO XYNNIR



2

The tennis club has a longstanding presence on the site and lacks an alternative location for relocation. Therefore, I aim to incorporate it into my design, ensuring the retention of at least two tennis courts. Given its involvement with children's programs, event hosting, and community engagement, I recognize its valuable potential, making it impractical to discontinue.

STUDENT HOUSING IN PRAGUE

20.4.2023



www.hrot24.cz

Kolejí je málo a jsou drahé. Do studentského bydlení míří developeři | Týdeník Hrot

Ubytování na studentských kolejích je čím dál dražší a je ho málo. Šanci vycítili developeři a přicházejí se soukromou alternativou

Například koleje Vysoké školy ekonomické loni na začátku zimního semestru zdražily zhruba o desetinu. „L nové zrekonstruovaných pokojů bylo navýšení v průměru o osmnáct procent,” konstatuje Martina Ulyášková z oddělení marketingu VŠE. „Jednolůžkový pokoj na kolejích VŠE na Jarově už tak běžně stojí přes 200 korun za noc, tedy přes šest tisíc měsíčně. Za nejlepší zrekonstruované pokoje se podle ceníku platí i přes osm tisíc měsíčně.

Velmi podobná cenové nálace nabízí i Univerzita Karlova, která spravuje hned několik ubytovacích zařízení po celé Praze a která loni zdražovala také zhruba o desetinu. Kdo se spokojí se čtyřlůžkovým pokojem, vejde se do stovky denně; za luxus soukromí se ale platí a v nabídce koleje Hvězda se dá najít i nadstandardní pokoj s vlastní „sociálkou“ za více než tři stovky denně, tedy kolem deseti tisíc měsíčně.

cesky.radio.cz

Kapacita studentských kolejí je zcela zaplněna

Kapacita studentských kolejí je zcela zaplněna

Koleje jako malované

V současnosti je největším hráčem na trhu studentského bydlení projekt v pražských Holešovicích. Soukromé koleje s celkem 675 lůžky dokončila před dvěma lety developerská společnost Karlin Group pro mezinárodní síť konceptu studentského bydlení s názvem The Fliz, kterou provozuje firma International Campus.

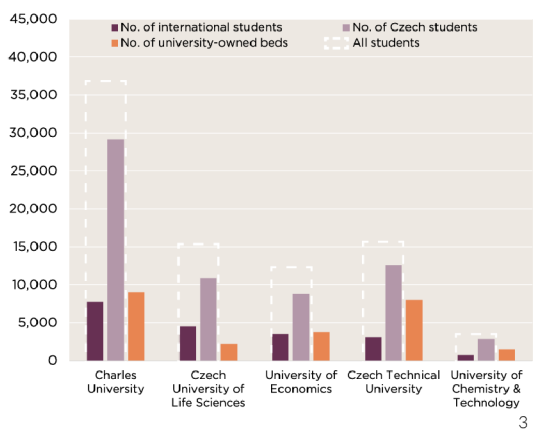
Dvojkou pražského trhu je nadnárodní nemovitostní fond Zeitraum, který provozuje několik studentských ubytoven v Praze 3, Praze 7 a Praze 10 s celkovou kapacitou 420 lůžek. Kromě silné dvojky existuje v hlavním městě několik dalších, menších poskytovatelů s omezenějšími kapacitami – třeba projekt Student House Botič s necelými dvěma stovkami lůžek.

Pohled do ceníků ukazuje, že zájemci o jednolůžkový pokoj platí podle lokality a velikosti ubytování v průměru deset až dvanáct tisíc korun měsíčně. Výjimkou ale nejsou ani luxusní prostorné apartmány s téměř dvojnásobnou cenou. Zároveň platí, že pronajmout si lůžko ve sdíleném pokoji či apartmánu se společnou koupelnou je o něco levnější. „Měsíční sazba včetně všech služeb vychází v jednolůžkovém pokoji od 11 800 do 14 000 korun, postel ve dvoulůžkovém pokoji od 10 500 korun,” počítá ředitelka společnosti Zeitraum Zdena Noack.

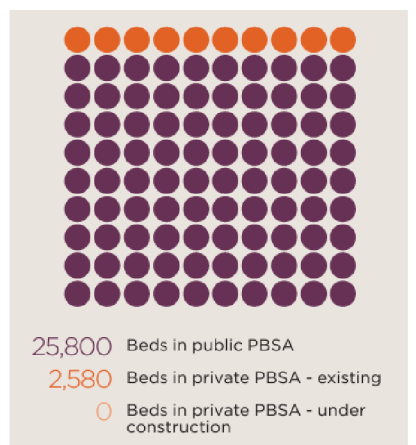
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STUDENT HOUSING IN PRAGUE

Top 5 largest universities in Prague
(students vs. university-owned beds)

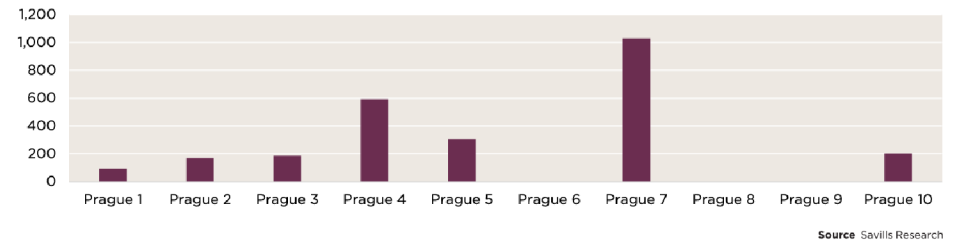


Prague PBSA capacities

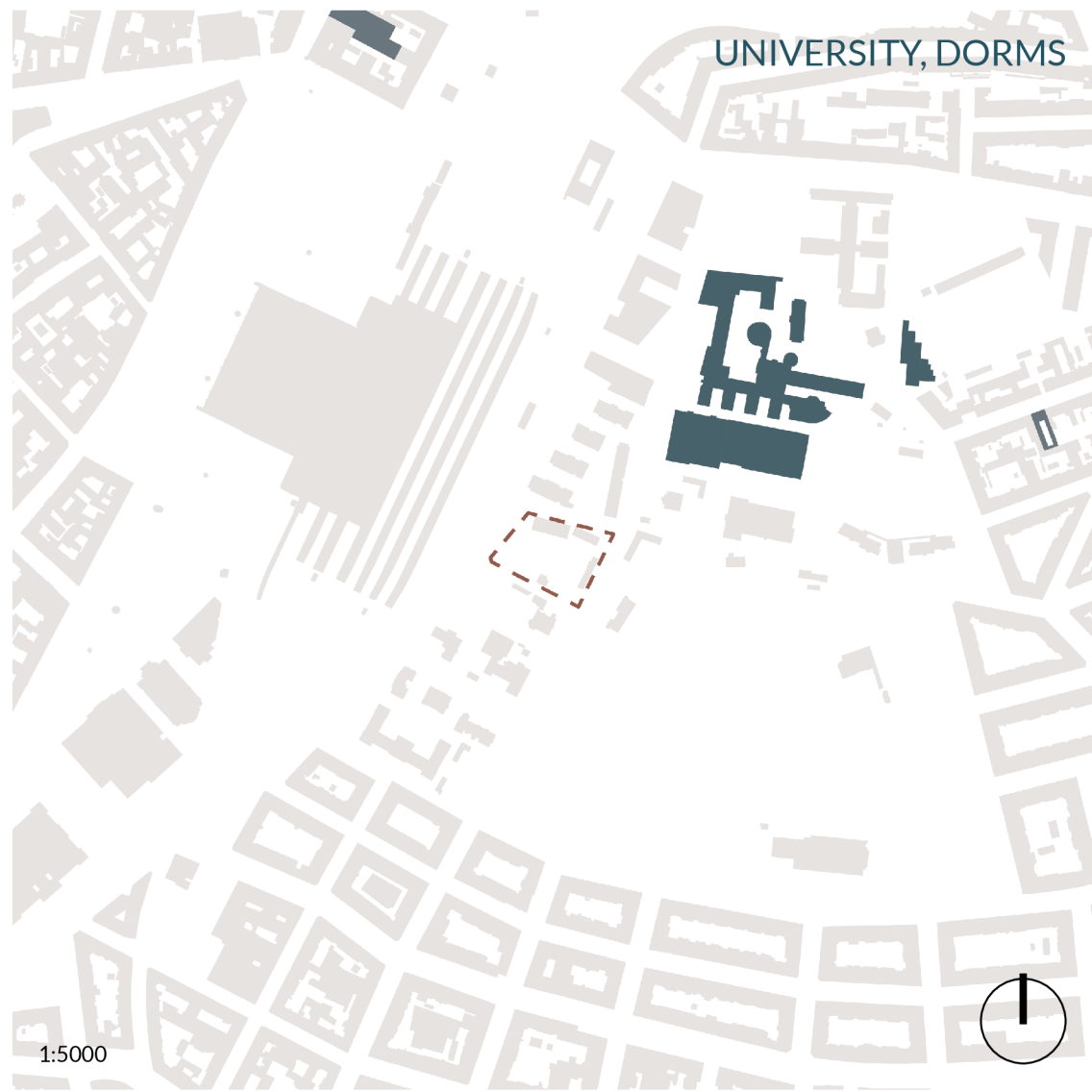


Source Savills Research

Total capacity of beds in private PBSA in Prague districts



Source Savills Research



SPORT

TENNIS CLUB

COMMUNITY

STUDYING

EVENTS

STUDENT HOUSING

PASSAGE

GREEN CONNECTION

PUBLIC SPACE

VIEWS

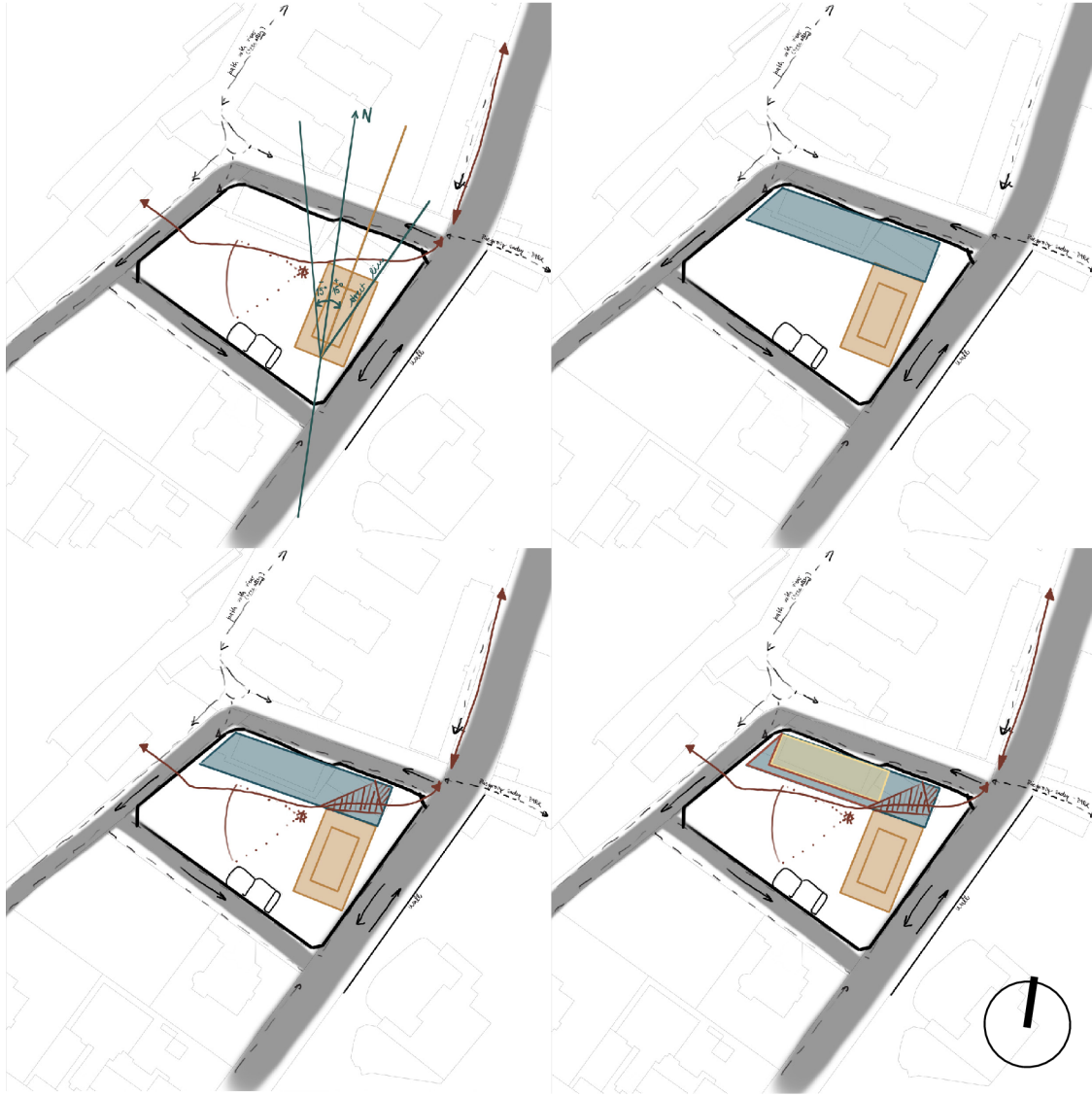
INVITING

I decided to design student dormitory with integration of the tennis club. I also added new functions such as a café / bar, hostel and a padel court for the possibility of also playing indoors.

DESIGN

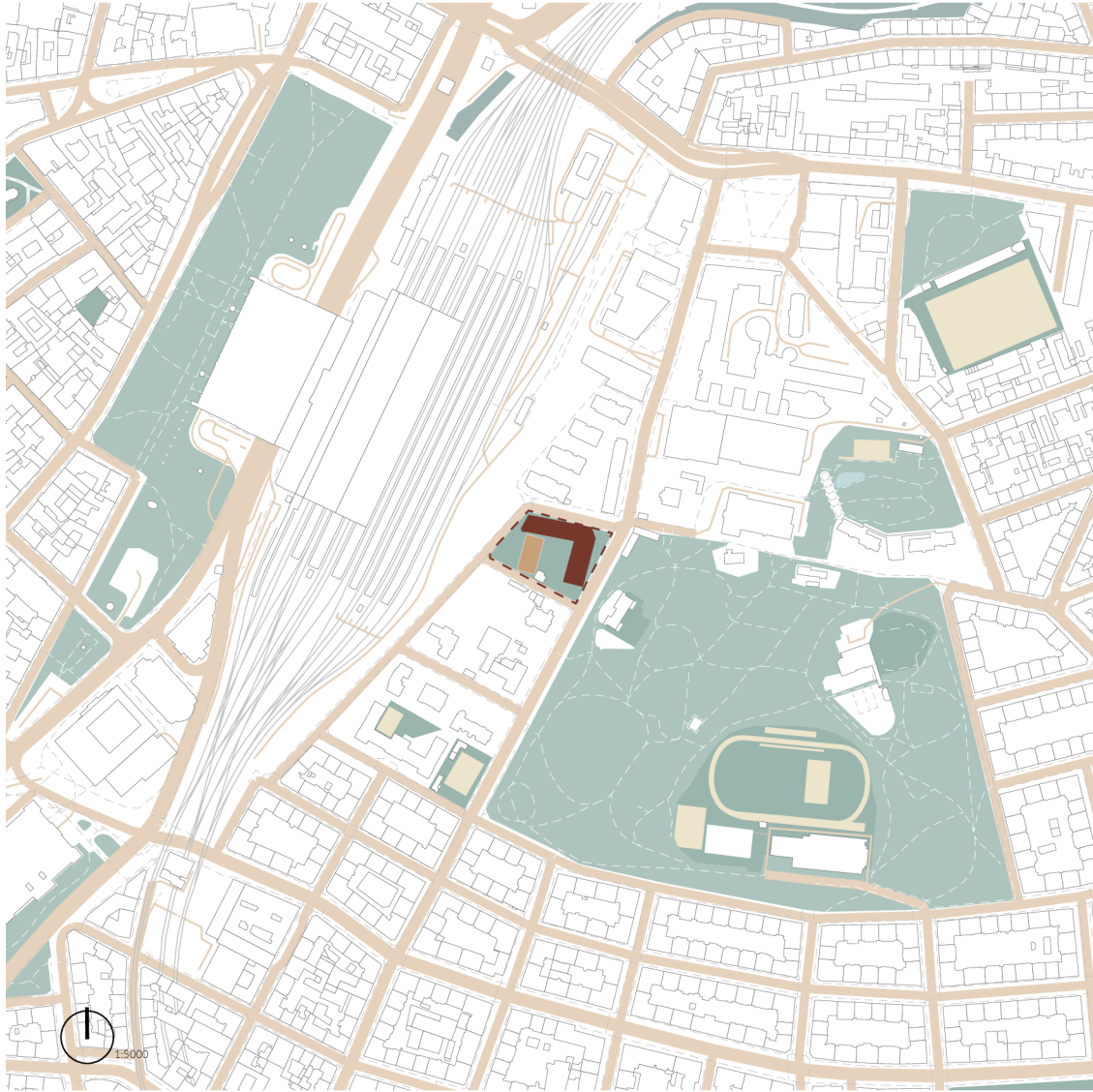
SHAPE

The shape and orientation started based on a size of tennis court, following with another volume along the second street. I cut out the corner to create the passage and open the site to the street.
After putting the volume for the student housing (yellow), I created an outside corridor not only for communication, but also as a social space / shared balcony.



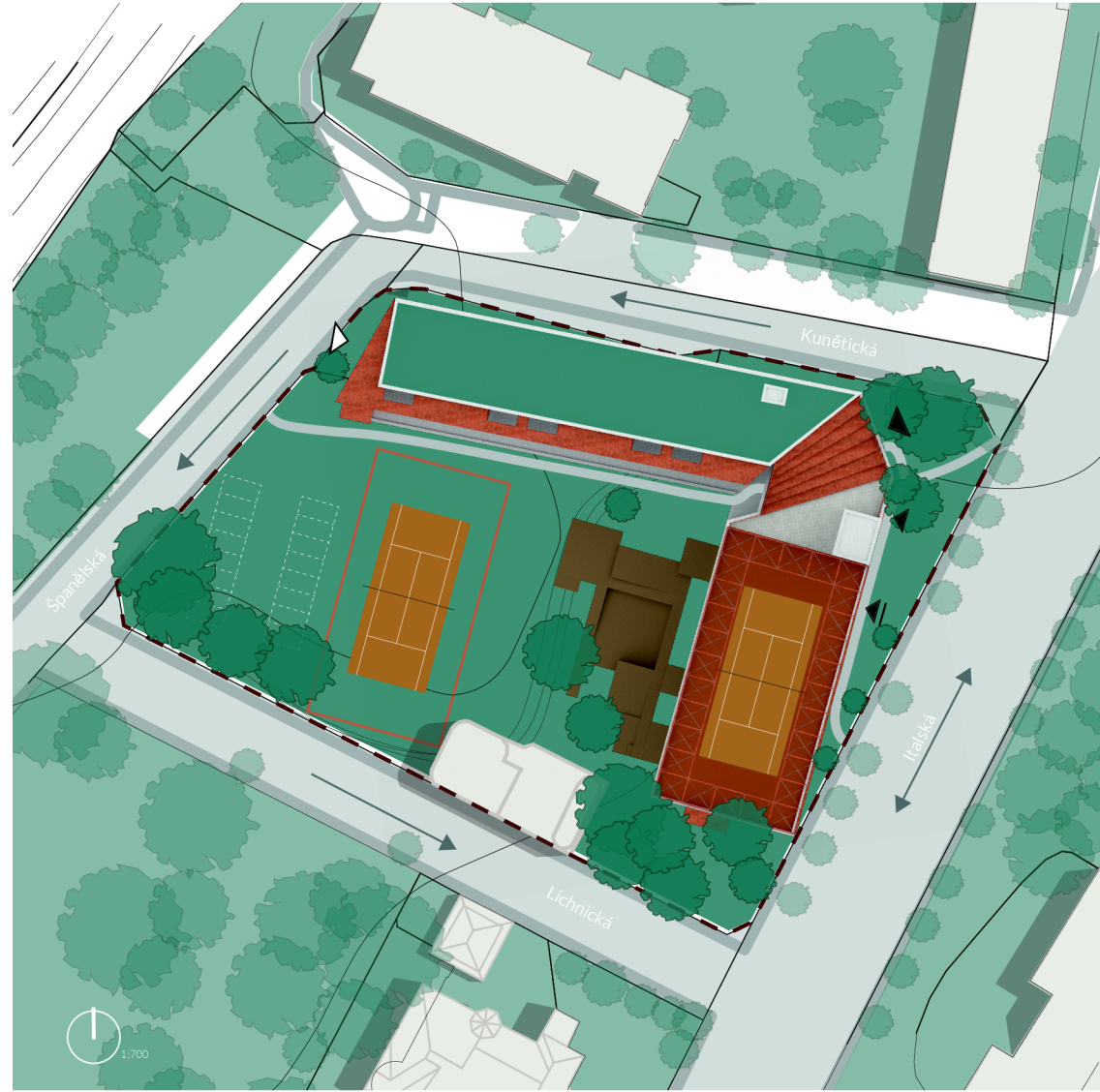
PLANS

SITE PLAN 1:5000



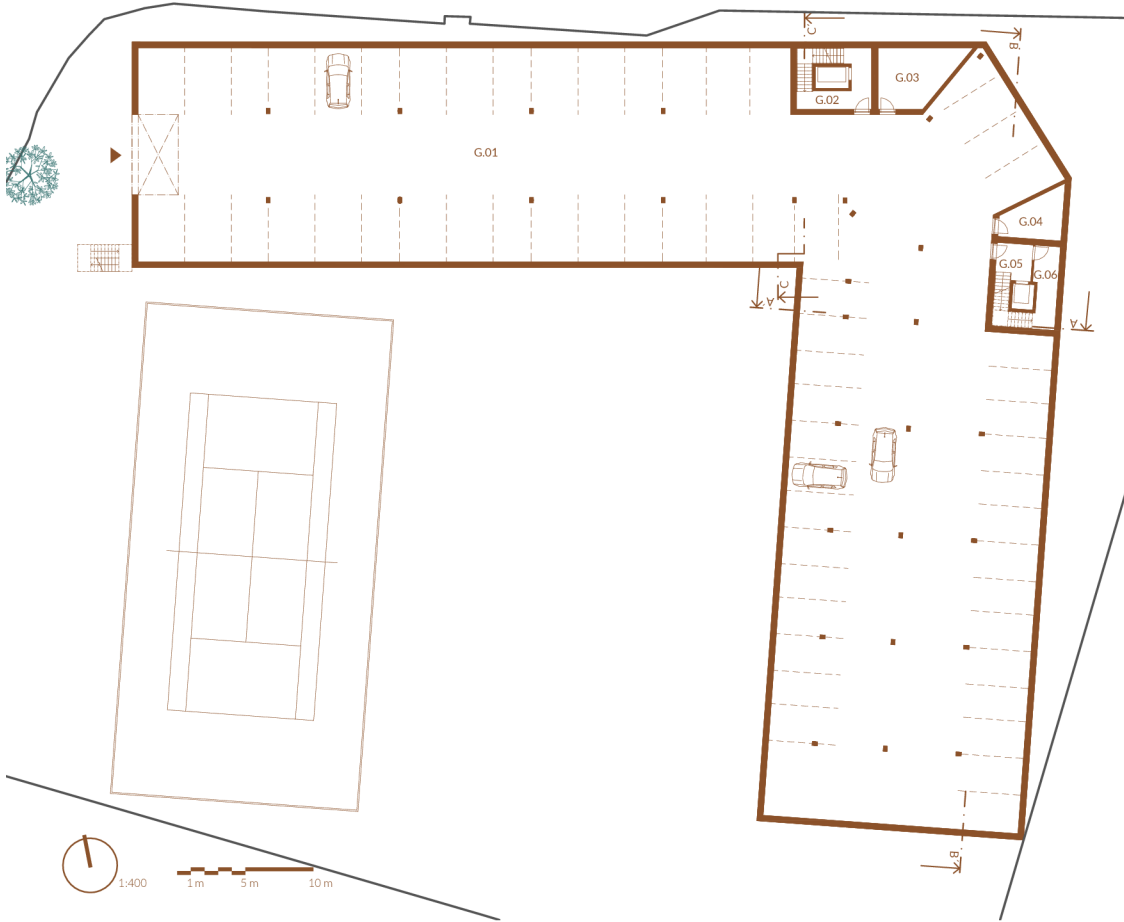
SITE PLAN 1:700

- ▷ entrance garage
- ▶ passage to the site
- ▶ entrance hostel
- ▮ entrance café



PLAN - GARAGE

G.01	parking	1768,1 m ²
G.02	staircase 1	19,9 m ²
G.03	technical room 1	24,0 m ²
G.04	technical room 2	13,9 m ²
G.05	staircase 2	10,5 m ²
G.06	utility room	14,5 m ²



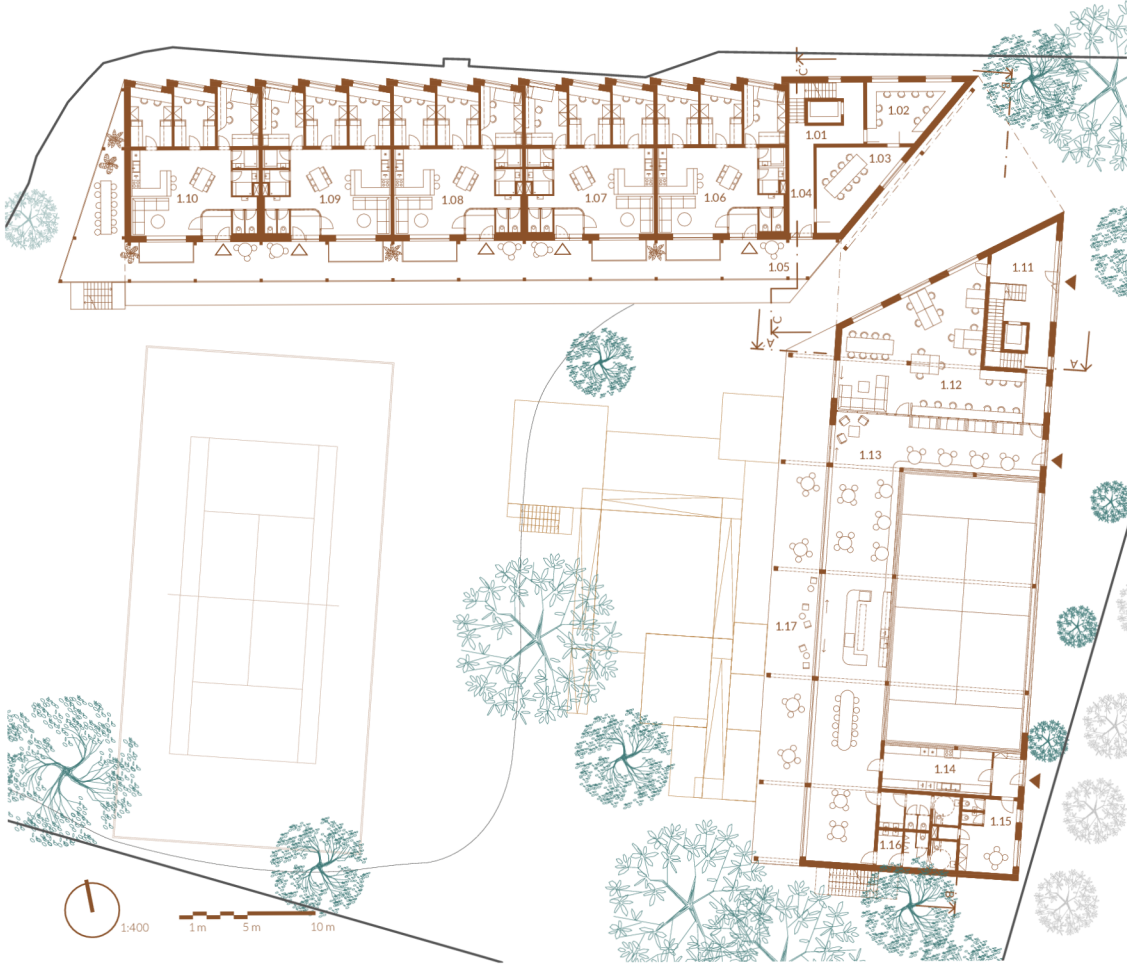
PLAN - UNDERGROUND FLOOR

U.01	staircase 1	19,9 m ²
U.02	entrance hall	26,1 m ²
U.03	reception	16,4 m ²
U.04	corridor with utility rooms	23,7 m ²
U.05	terrace	212,8 m ²
U.O6	st. ap. 1 (barrier free option)	96,7 m ²
U.07	st. ap. 2 (barrier free option)	96,7 m ²
U.08	student apartment 3	95,8 m ²
U.09	student apartment 4	95,8 m ²
U.10	student apartment 5	95,8 m ²
U.11	entrance hall	69,0 m ²
U.12	staircase 2	17,5 m ²
U.13	technical room	14,7 m ²
U.14	corridor	16,1 m ²
U.15	tennis club (club room)	49,8 m ²
U.16	storage	40,2 m ²
U.17	technical room	36,6 m ²
U.18	tennis club (sport hall)	266,9 m ²
U.19	padel court	206,4 m ²
U.20	changing rooms + showers	40,2 m ²
U.21	toilettes	37,6 m ²



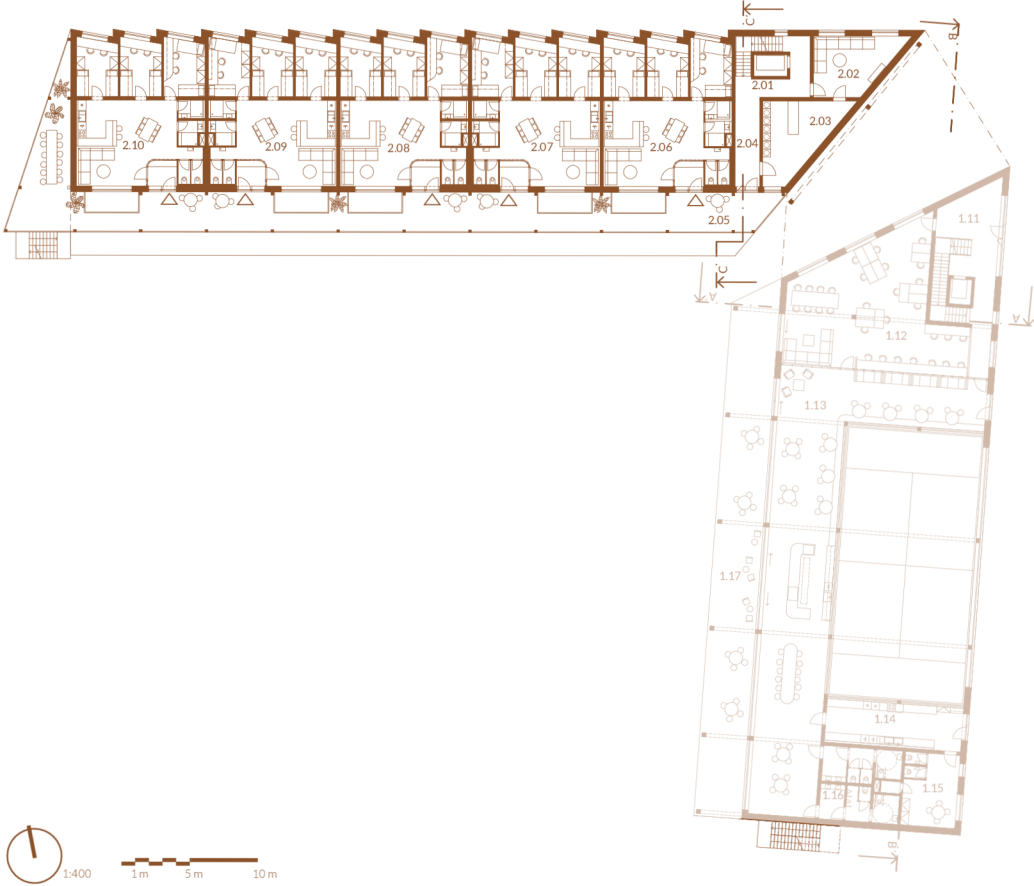
PLAN - GROUND FLOOR

1.01	staircase	19,9 m ²
1.02	study room 1	25,1 m ²
1.03	study room 2	28,3 m ²
1.04	corridor	12,3 m ²
1.05	outside corridor	158,2 m ²
1.06	student apartment 1	95,8 m ²
1.07	student apartment 2	95,8 m ²
1.08	student apartment 3	95,8 m ²
1.09	student apartment 4	95,8 m ²
1.10	student apartment 5	95,8 m ²
1.11	entrance hall	47,8 m ²
1.12	study room	109,4 m ²
U.13	café	209,9 m ²
U.14	kitchen + storage	26,9 m ²
U.15	staff facilities	27,3 m ²
U.16	toilettes	28,2 m ²
U.17	terrace	138,9 m ²



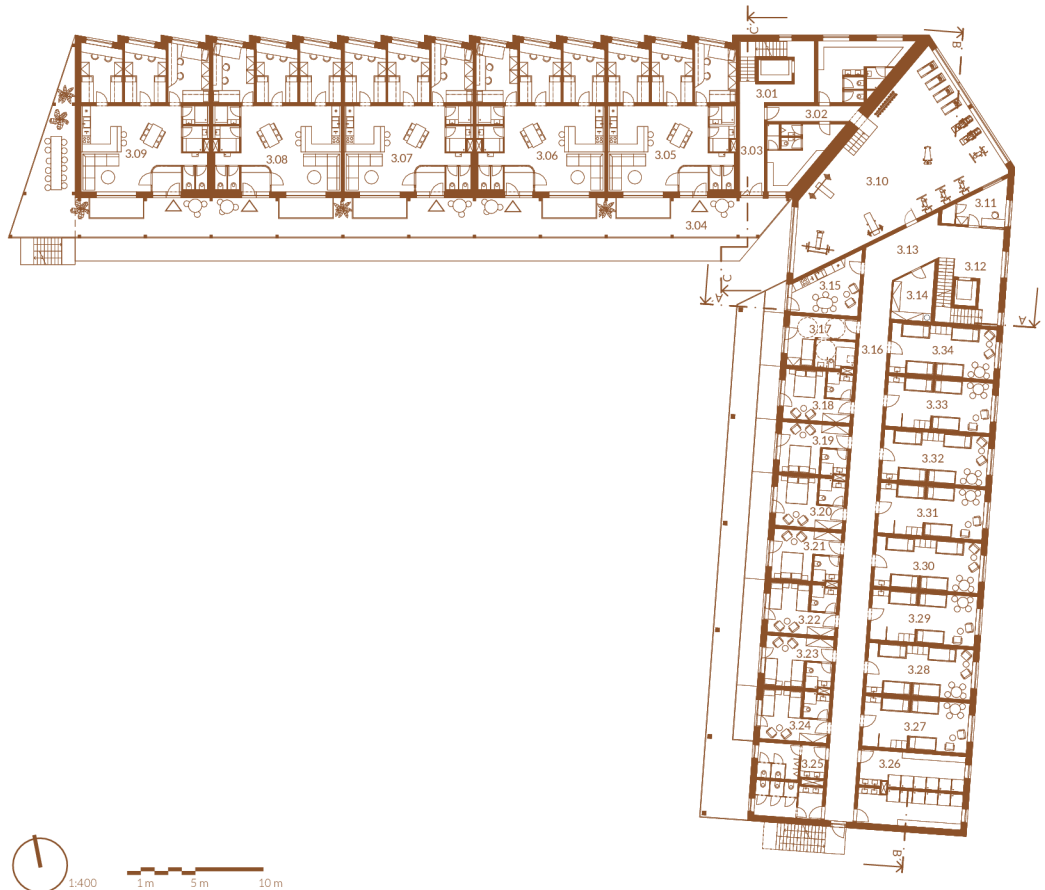
PLAN - SECOND FLOOR

2.01	staircase	19,9 m ²
2.02	TV room	25,0 m ²
2.03	laundry	28,3 m ²
2.04	corridor	14,5 m ²
2.05	outside corridor	158,2 m ²
2.06	student apartment 1	95,8 m ²
2.07	student apartment 2	95,8 m ²
2.08	student apartment 3	95,8 m ²
2.09	student apartment 4	95,8 m ²
2.10	student apartment 5	95,8 m ²



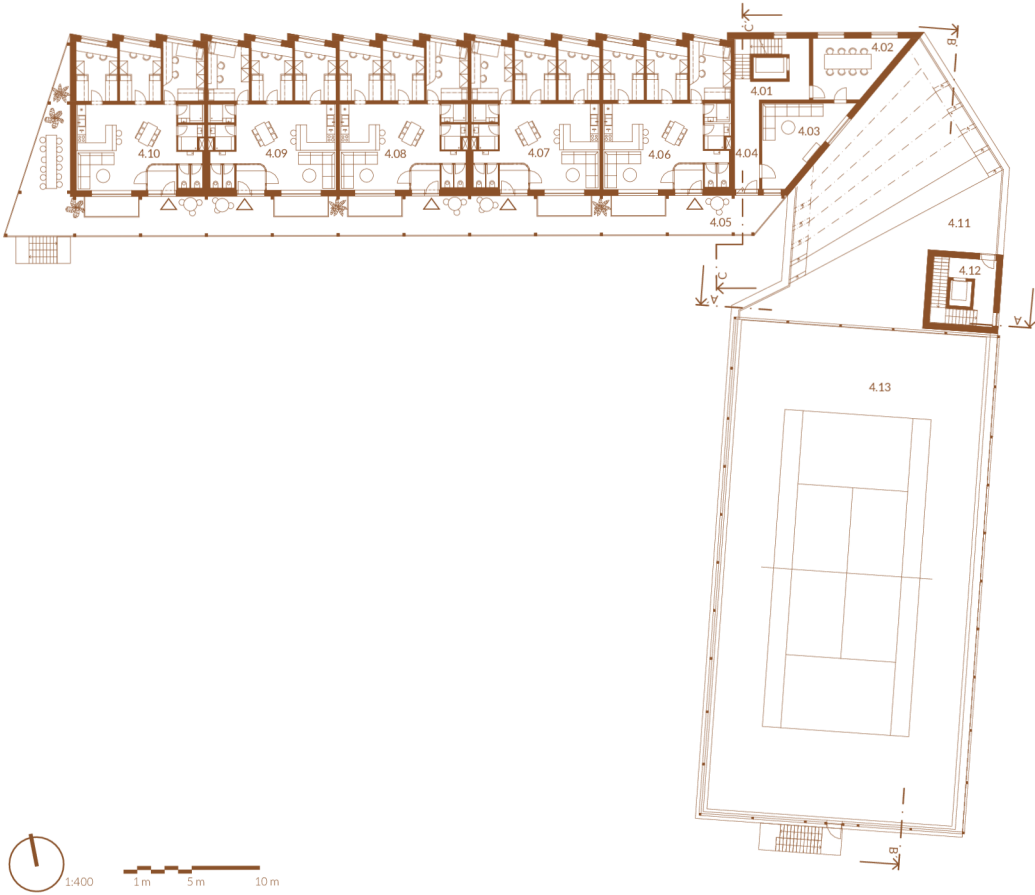
PLAN - THIRD FLOOR

3.01	staircase	19,9 m ²
3.02	changing rooms	49,5 m ²
3.03	corridor	12,4 m ²
3.04	outside corridor	158,2 m ²
3.05	student apartment 1	95,8 m ²
3.06	student apartment 2	95,8 m ²
3.07	student apartment 3	95,8 m ²
3.08	student apartment 4	95,8 m ²
3.09	student apartment 5	95,8 m ²
3.10	gym	128,5 m ²
3.11	reception (for gym and hostel)	11,3 m ²
3.12	staircase	18,2 m ²
3.13	hall	35,8 m ²
3.14	utility room	11,1 m ²
3.15	shared kitchen	17,9 m ²
3.16	corridor	81,2 m ²
3.17	hostel room (barrier free)	17,7 m ²
3.18 - 3.24	hostel rooms for 2 (+balconies)	17,9 m ²
3.25	toilettes	26,5 m ²
3.26	showers	41,7 m ²
3.27-3.34	hostel rooms - dorm rooms for 6/8	29,3 m ²

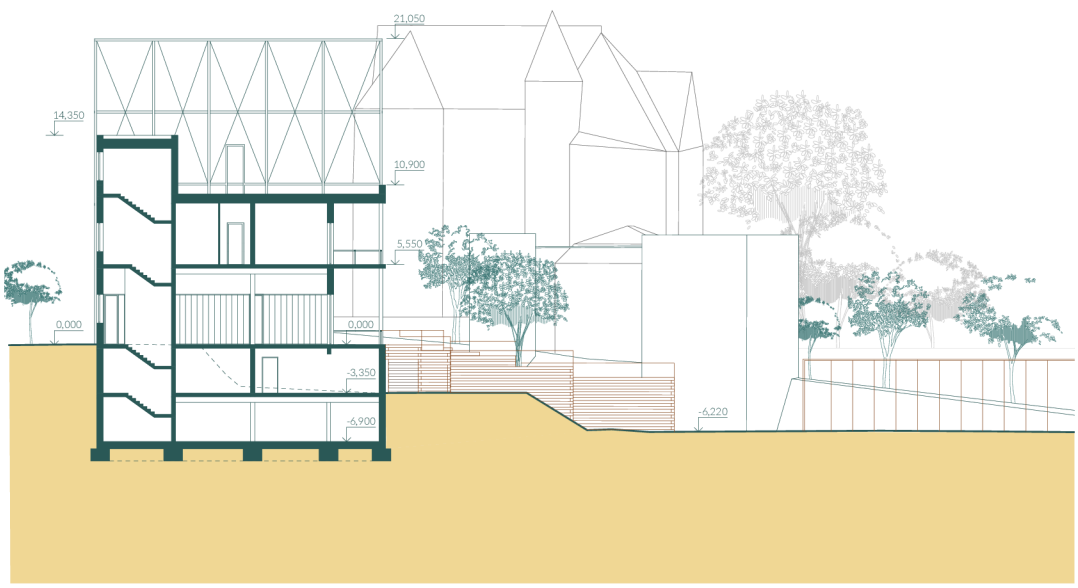


PLAN - FOURTH FLOOR

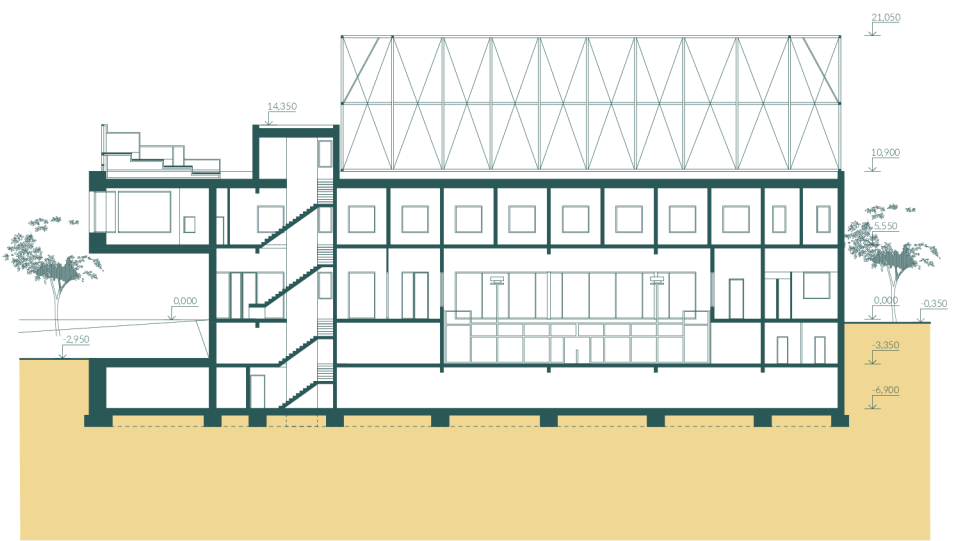
4.01	staircase	19,9 m ²
4.02	study room	25,0 m ²
4.03	TV room	28,3 m ²
4.04	corridor	14,5 m ²
4.05	outside corridor	158,2 m ²
4.06	student apartment 1	95,8 m ²
4.07	student apartment 2	95,8 m ²
4.08	student apartment 3	95,8 m ²
4.09	student apartment 4	95,8 m ²
4.10	student apartment 5	95,8 m ²
4.11	roof terrace	225,4 m ²
4.12	staircase	18,8 m ²
4.13	tennis court	668,9 m ²



SECTION AA'

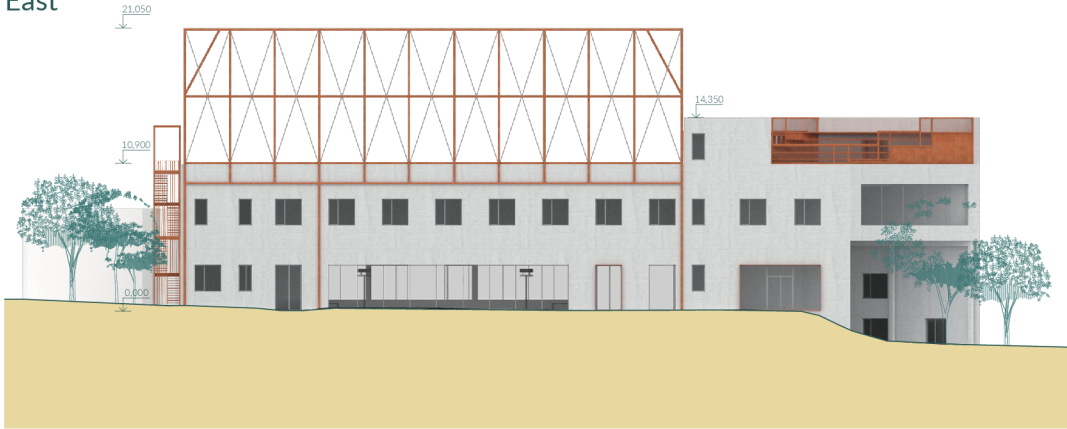


SECTION BB'

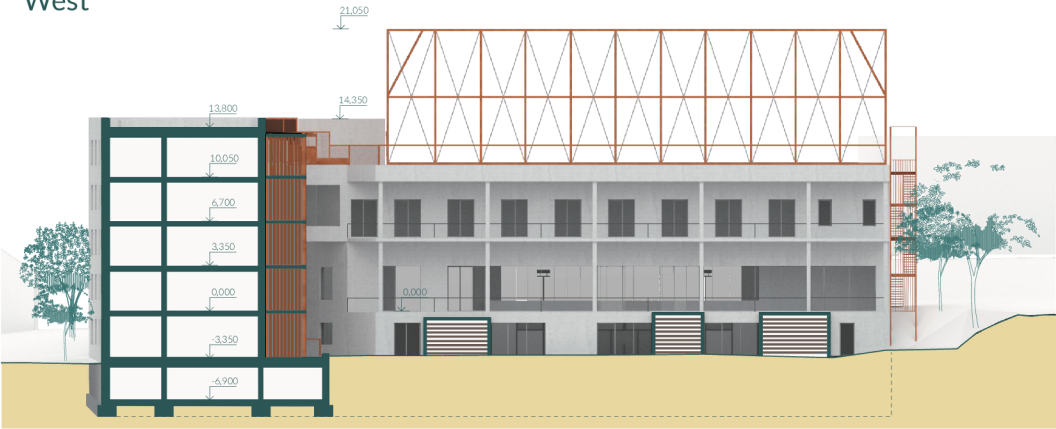


ELEVATIONS

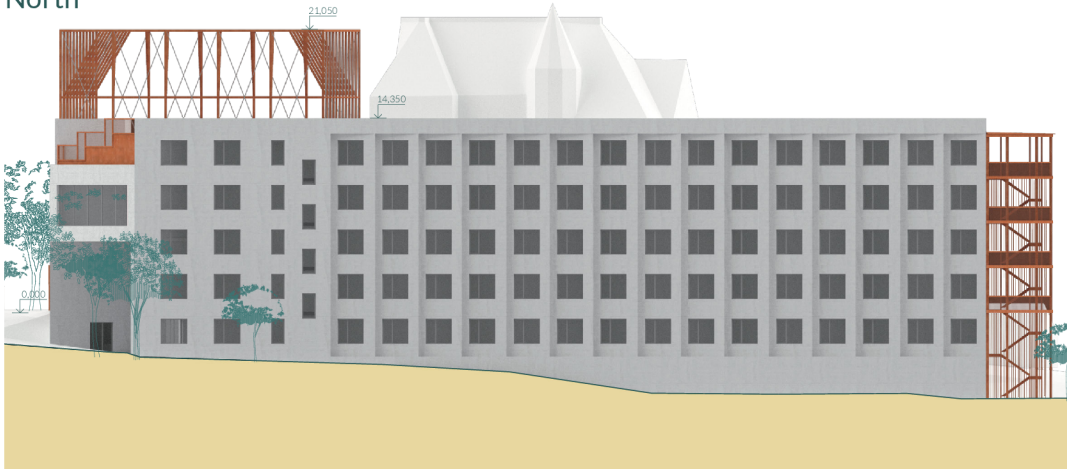
East



West

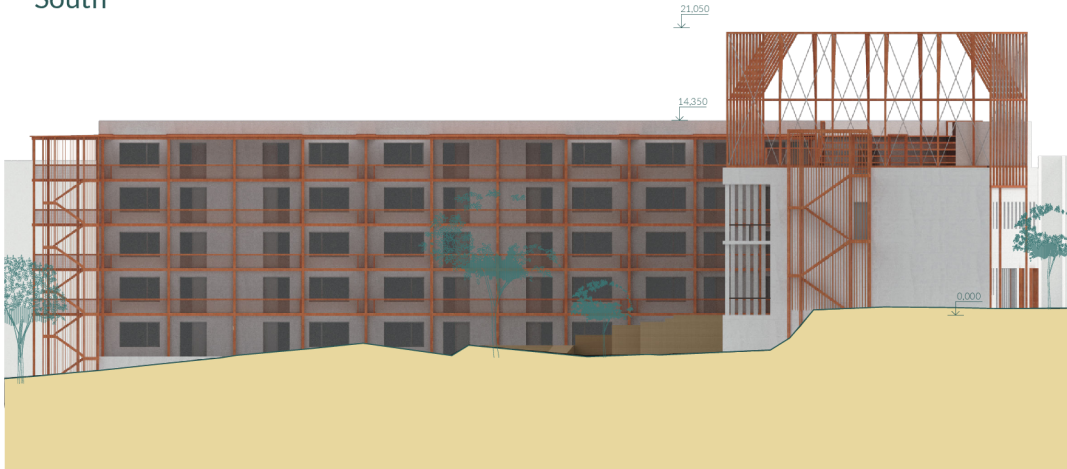


North



1:400 1m 5m 10m

South

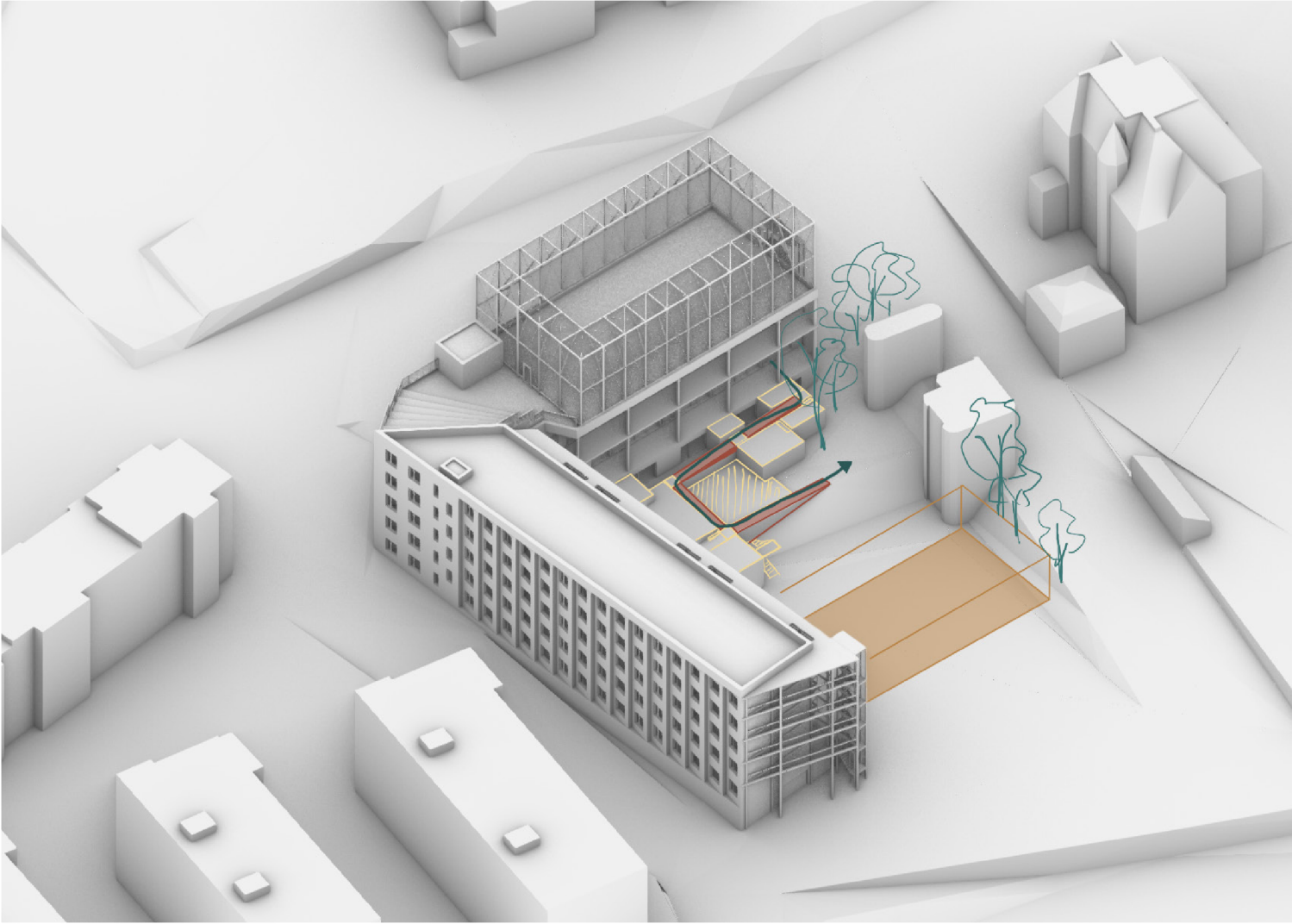


1:400 1m 5m 10m

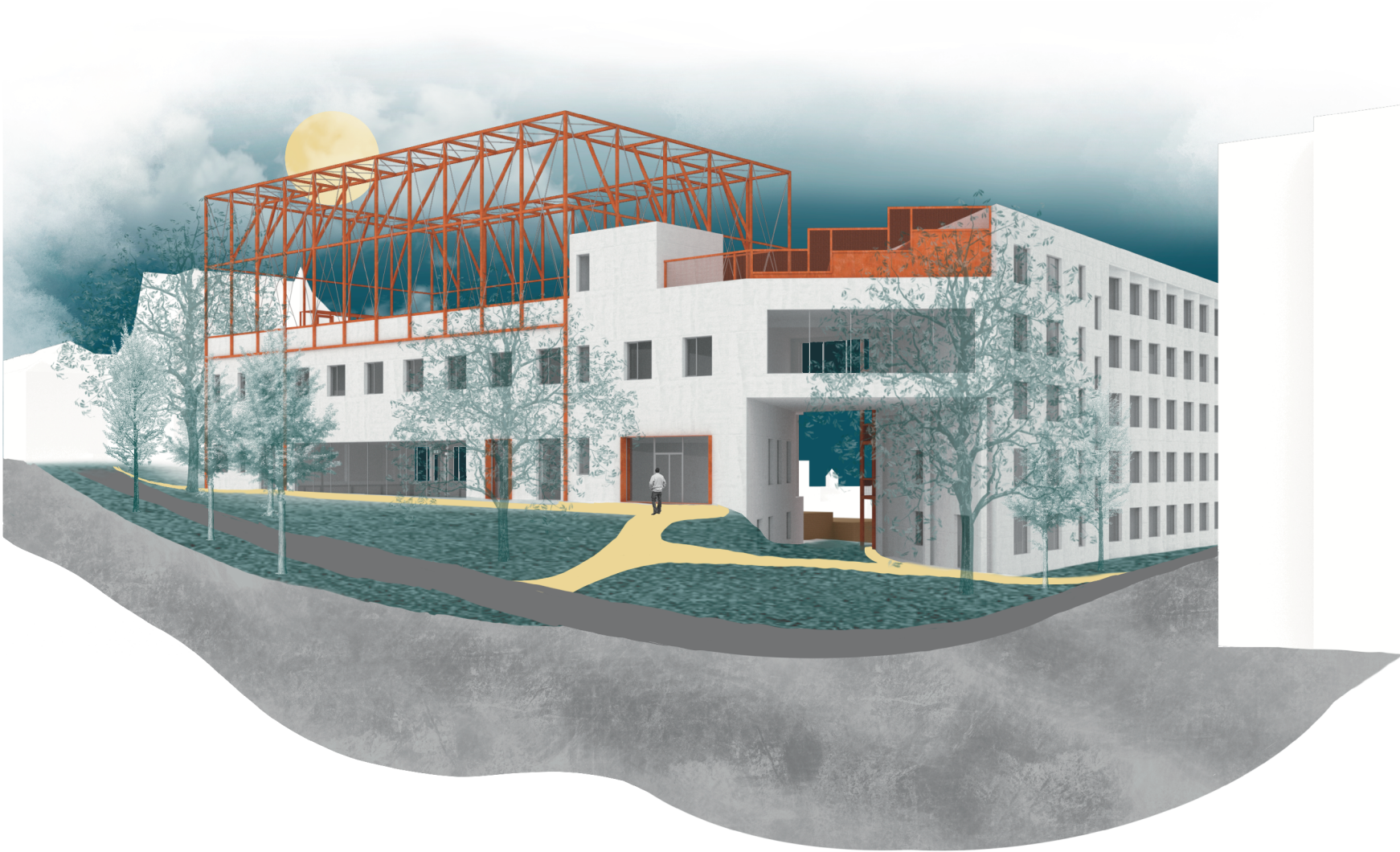
LANDSCAPE

I am placing one of the tennis courts on the ground in the area of the existing ones. I am leaving the rest of the site mostly empty to have as much green (grass and trees) area left.

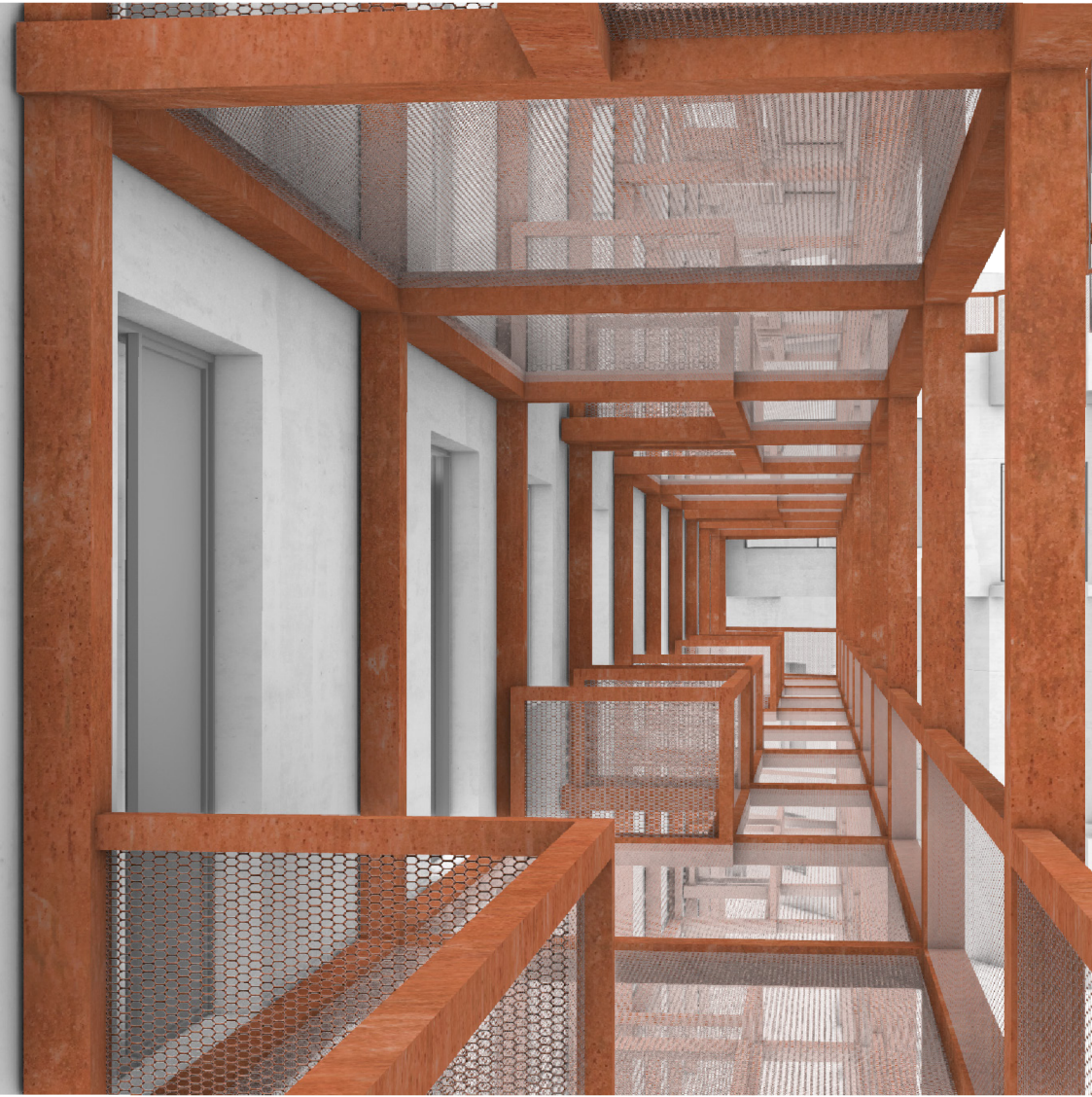
The building is spilling into the site with platforms and a ramp leading from the terrace of the cafe towards the tennis court and I am creating also a bigger platform that can work as a stage for events.



PERSPECTIVE



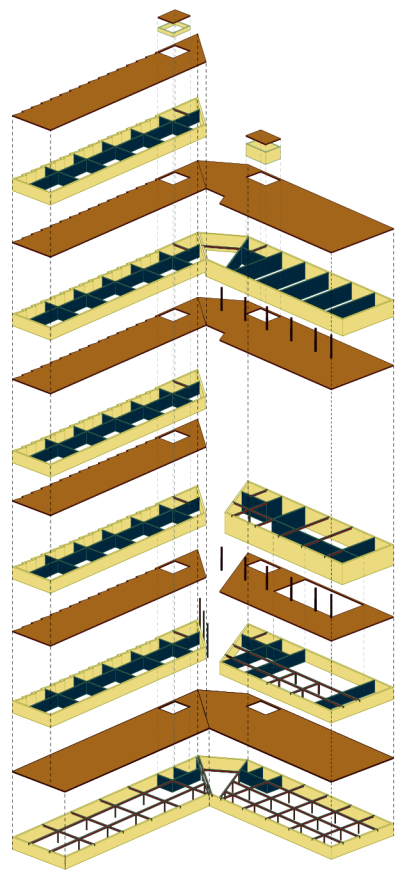
PERSPECTIVE
outside corridor



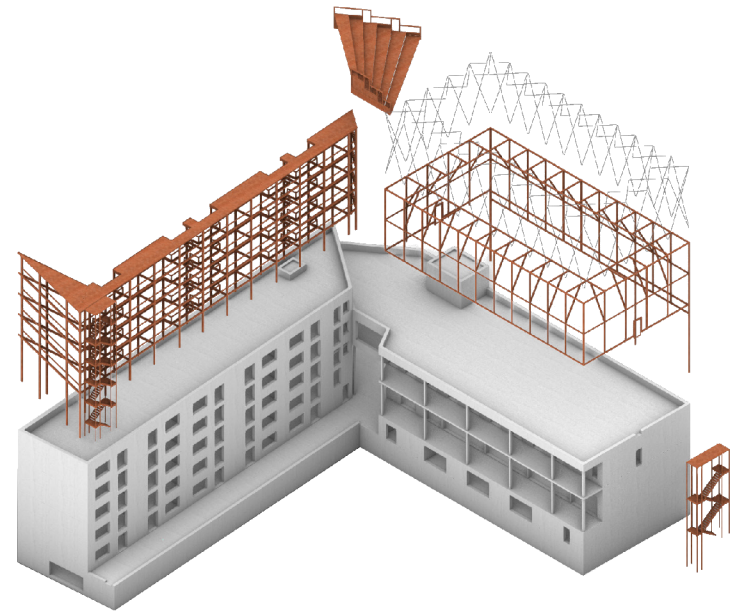
CONSTRUCTION

CONSTRUCTION SCHEME

The load-bearing structure consists of reinforced concrete columns, beams, walls and ceilings. The columns are dimension 300x300mm, walls have thickness of 250mm. The ceiling slabs are also 250mm.



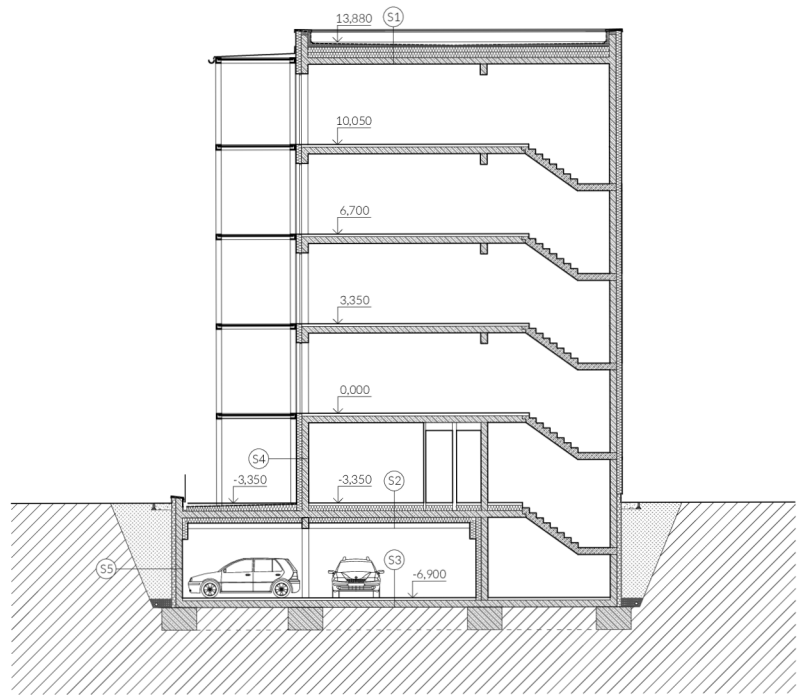
The external elements such as the outside corridor, "cage" for the tennis court, tribune and escape staircases are made out of corten steel.



SECTION CC'

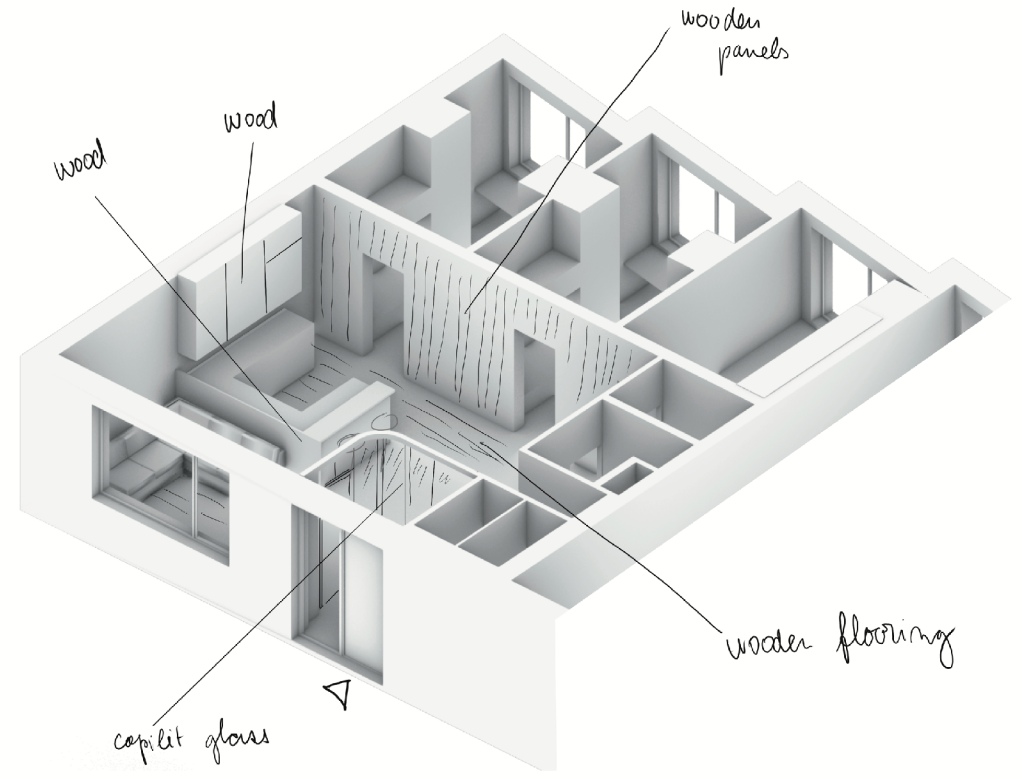
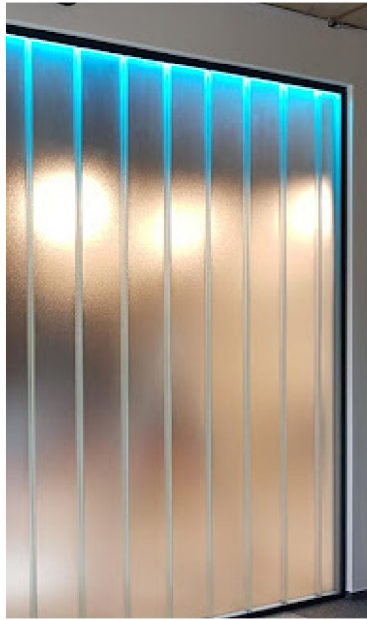
assemblies

S1 - roof		
extensive vegetation substrate	40mm	
accumulation and drainage layer - dimple membrane	25mm	
separation layer - geotextile		
waterproofing - modified bitumen membrane 2x4mm	8mm	
inclination layer - EPS, 3%	20-150mm	
thermal insulation - EPS 2x120mm	200mm	
vapour barrier		
reinforced concrete ceiling slab	250mm	
S2 - floor above unheated storey		
cement screed	10mm	
separation foil		
mineral thermal insulation	200mm	
reinforced concrete ceiling slab	250mm	
mineral thermal insulation	200mm	
reinforced concrete beam	400mm	
S3 - floor on the terrain		
epoxy garage floor	10mm	
flexible waterproofing polyurethane layer		
epoxy penetration		
reinforced concrete foundation slab	300mm	
waterproofing	8mm	
S4 - external wall		
concrete screed	10mm	
mineral thermal insulation	200mm	
reinforced concrete wall	250mm	
S5 - basement wall		
dimple membrane	150mm	
thermal insulation - XPS		
reinforced concrete wall of the white tub	250mm	



INTERIOR

STUDENT FLAT



CAFÉ + PADEL



RESOURCES

- 1 <http://www.skoaza.cz/tenis-centrum-praha>
- 2 https://www.facebook.com/kurtyVinohrady?locale=cs_CZ
- 3 <https://pdf.euro.savills.co.uk/czech-republic/2021-03-student-housing-v2.pdf> 4

<https://www.expats.cz/czech-news/article/an-experimental-student-co-living-complex-debuts-in-the-czech-republic>

<https://www.expats.cz/czech-news/article/the-fizz-prague>

<https://www.archdaily.com/260739/fala-park-pl-architekci>

<https://www.thesocialhub.co>

https://prazsky.denik.cz/ostatni_region/kurty-maji-ustoupit-domu-pro-seniory-deti-by-tak-prisly-o-tenis-20220914.html

