ALMO CH

Engineers & Architects

Reference Project 1: Alloheim Senior Residence "Sythen am See", 45721 Haltern am See, Germany

Reference Project 2: School Campus - Heiget, 8320 Fehraltorf, Switzerland

Reference Project 3: Work and Living Community - Borna, 4852 Rothrist, Switzerland

Reference Project 4: Hotel Hirschen, 6208 Oberkirch, Switzerland

Reference Project 5: Paper Machine Building 2 - Intertrade Hellas PM2, Acharnes 136 72, Greece

Reference Project 6: Scholl Community School - Geschwister, 22549 Hamburg, Germany

Reference Project 7: Regional Heritage Center in Debar, 1250 Debar, Macedonia

Reference Project 8: Institute of Folklore and National Architecture in Galichnik, 1254 Galichnik, Macedonia

Reference Project 9: Revitalization of the House of Culture "Goce Delchev", 1000 Skopje, Macedonia

Reference Project 10: Residential Development - Brühl, Erfurt, 99092 Erfurt, Germany

Reference Project 11: Condominiums and Rental Apartments - EUROPAKARREE 1, 99091 Erfurt, Germany

Reference Project 12: Residential and Commercial Buildings, Preyergasse 4/6 1130 Vienna, Austria

M.Eng. Aleksandar Matoski
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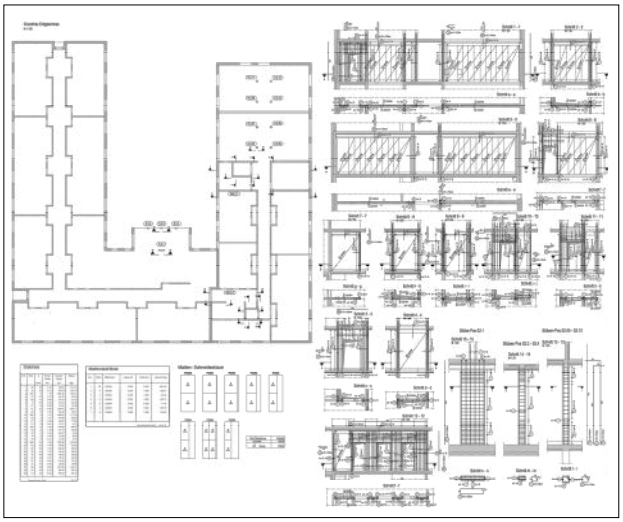
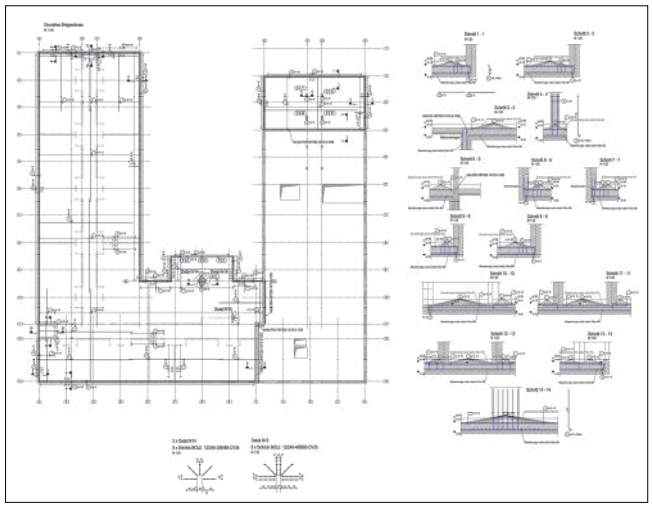
M.Arch. Monika Matoska
m.matoski@almo-bauingenieure.ch

ALLOHEIM SENIOR CITIZENS - RESIDENCE "SYTHEN AM SEE"

45721 Haltern am see, Germany





Client

Alloheim Senioren
-Residenz Haltern GmbH

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40547 Düsseldorf
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Planner

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& ingenieure

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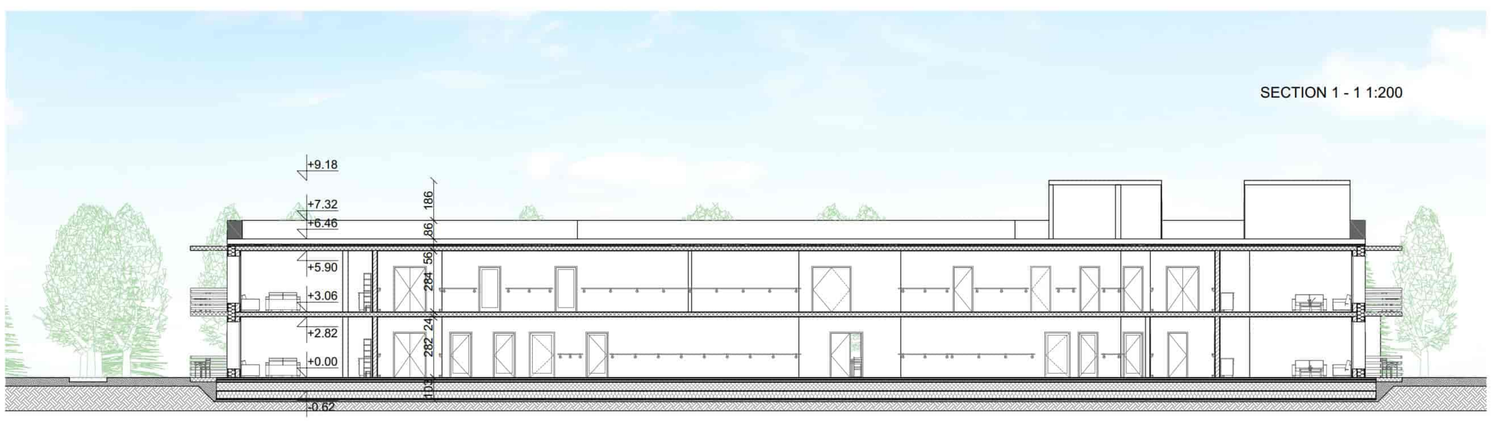
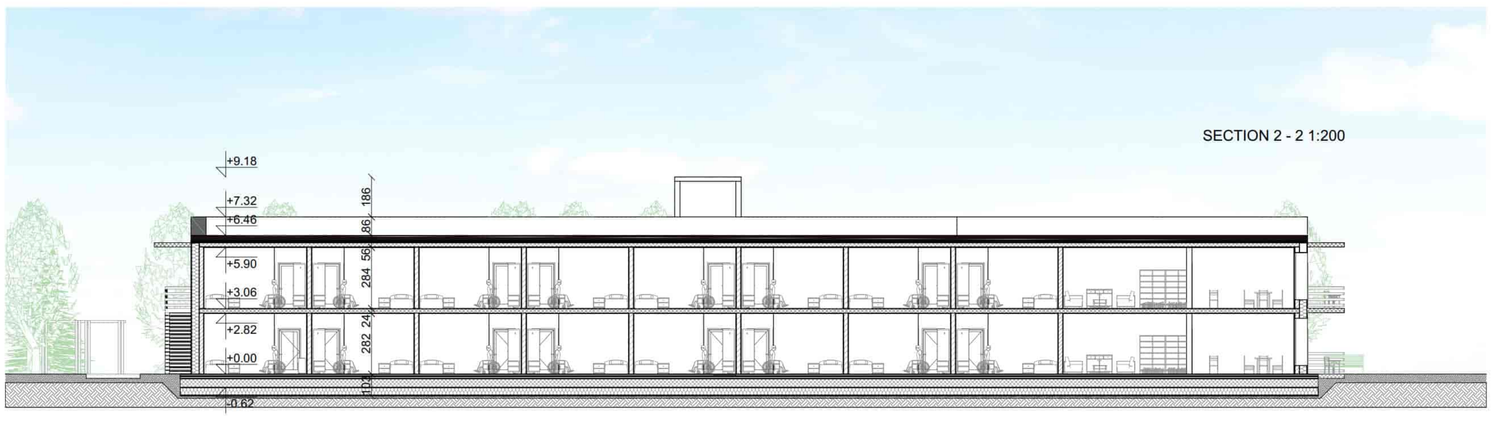
www.perner-architekten.de

Civil Engineer

ALMO CH Engineers & Architects

- **Structural planning**
  - Reinforcement plans
  - Formwork plans
  - Position plans
- **Statics**
- **Architectur**
  - Architects plans
  - 3D-BIM Modeling
  - Photo Visualisation





OPENING AREA:
116m2/

WALL AREA:
517.5m2/

OPENING AREA:
138.13m2/

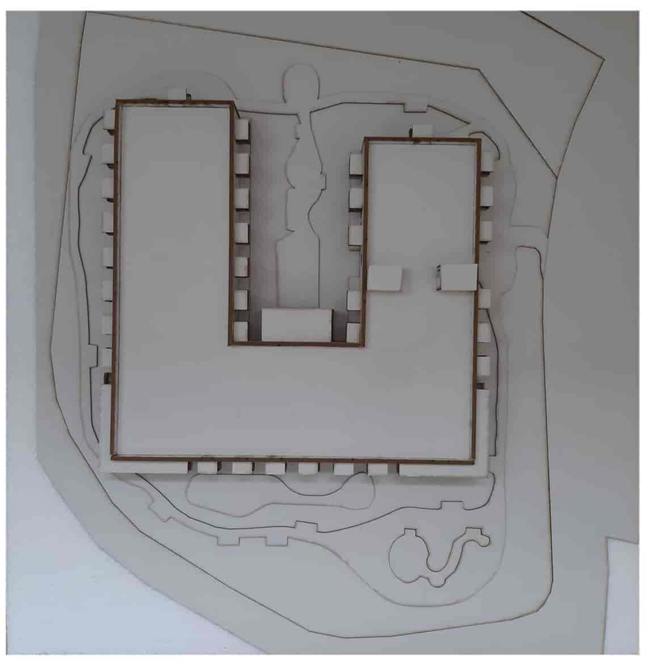
WALL AREA:
313.5m2/

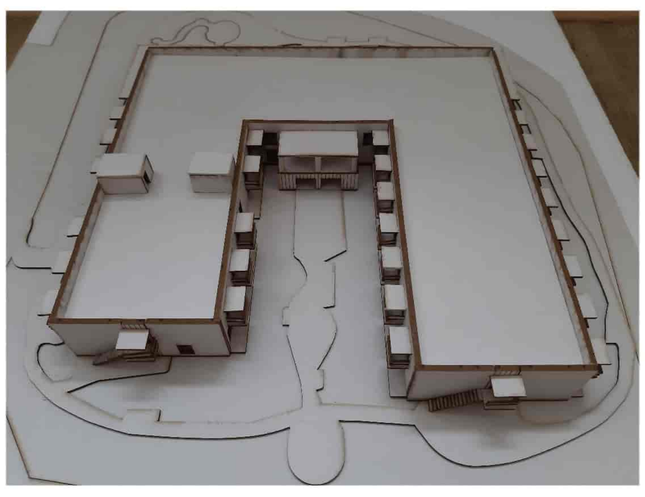
OPENING AREA:
48.68m2/

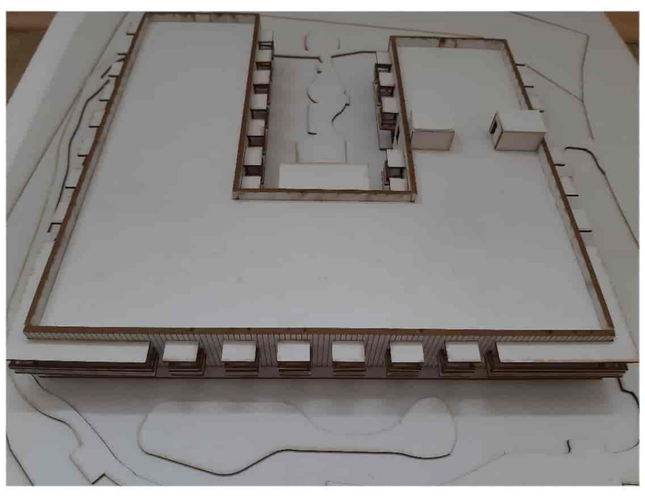
WALL AREA:
517.5m2/

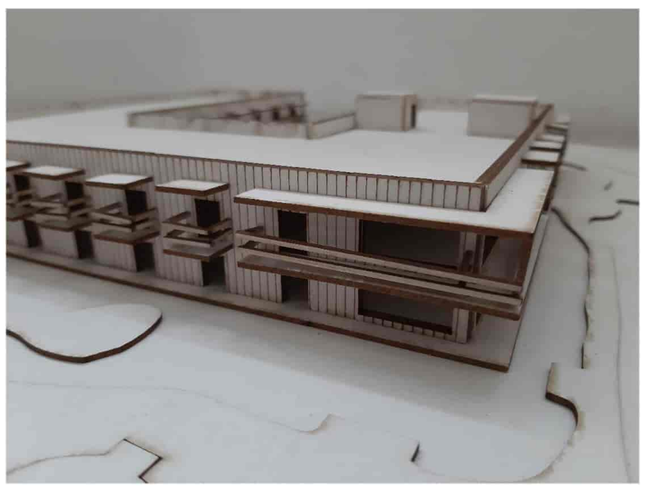
OPENING AREA:
86.03m2/

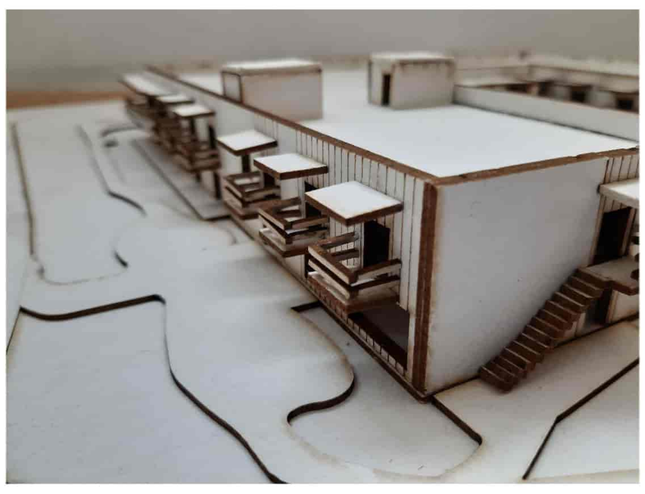
WALL AREA:
313.5m2/

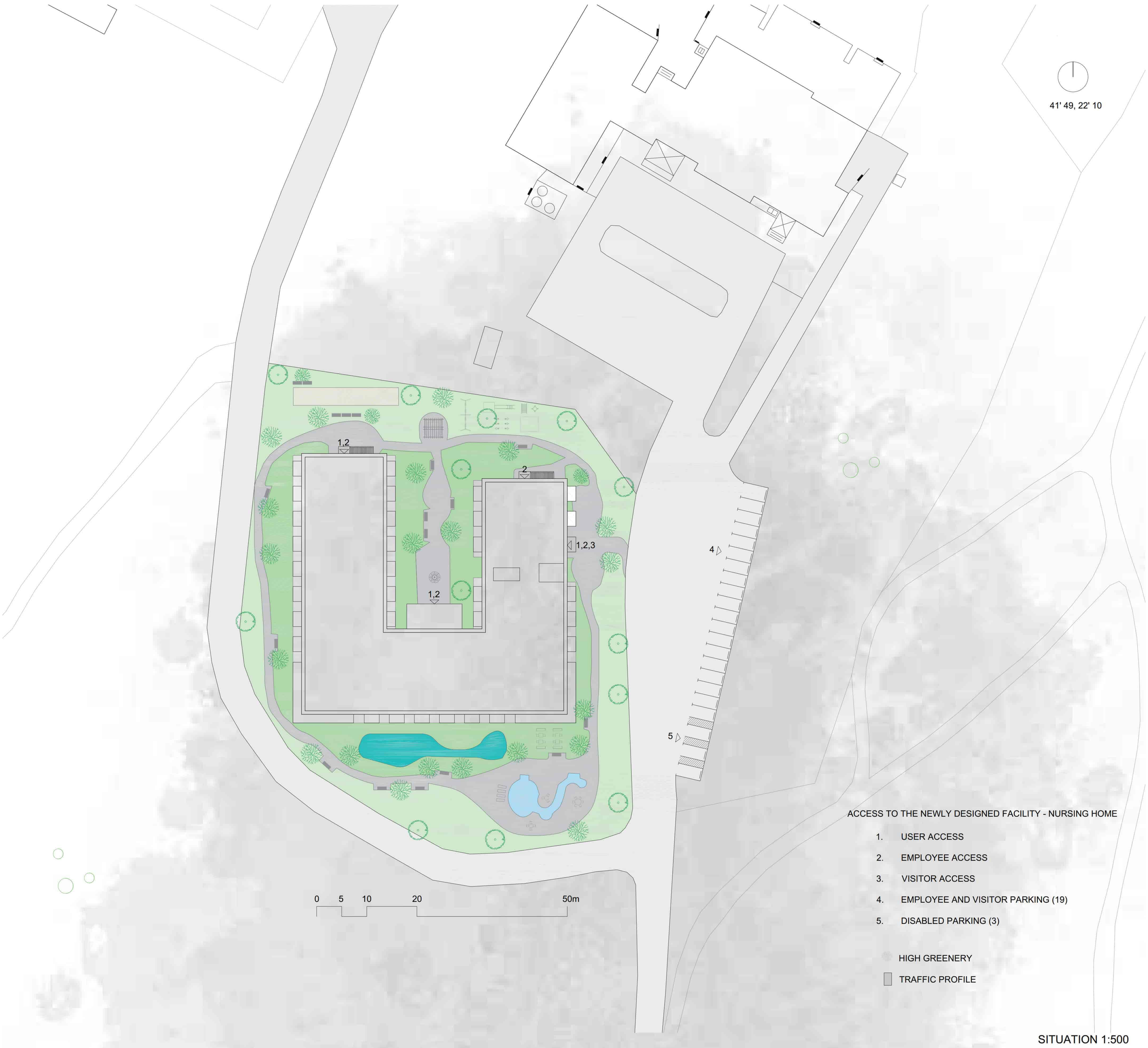












ACCESS TO THE NEWLY DESIGNED FACILITY - NURSING HOME

1. USER ACCESS
2. EMPLOYEE ACCESS
3. VISITOR ACCESS
4. EMPLOYEE AND VISITOR PARKING (19)
5. DISABLED PARKING (3)

HIGH GREENERY

TRAFFIC PROFILE

SITUATION 1:500

LEGEND: INTERIOR

1. ENTRANCE HALL 114.08m2/
2. STAIRCASE 21.11m2/
3. ELEVATOR 6.38m2 /
4. 26x ROOMS 27m2/ = 702m2 /
5. KITCHEN 58.16m2/
6. DINING ROOM 116.1m2/
7. AUXILIARY TOILETRIES 25.29m2/
8. AUXILIARY SPACES 40.08m2/
9. ADMINISTRATION 91.98m2/
10. LIVING ROOM 175.42m2/
11. CORRIDOR 373.27m2/
12. TERRACES 330.1m2/

NUMBER OF PARKING SPACES REQUIRED: 19

NUMBER OF PARKING SPACES PROVIDED: 21

LEGEND: EXTERIOR

13. CHILDREN'S PLAY AREA

14. PATH FOR MOVEMENT / PHYSICAL ACTIVITIES OF USERS

15. PARKING
(19) PARKING AREAS FOR VISITORS AND EMPLOYEES

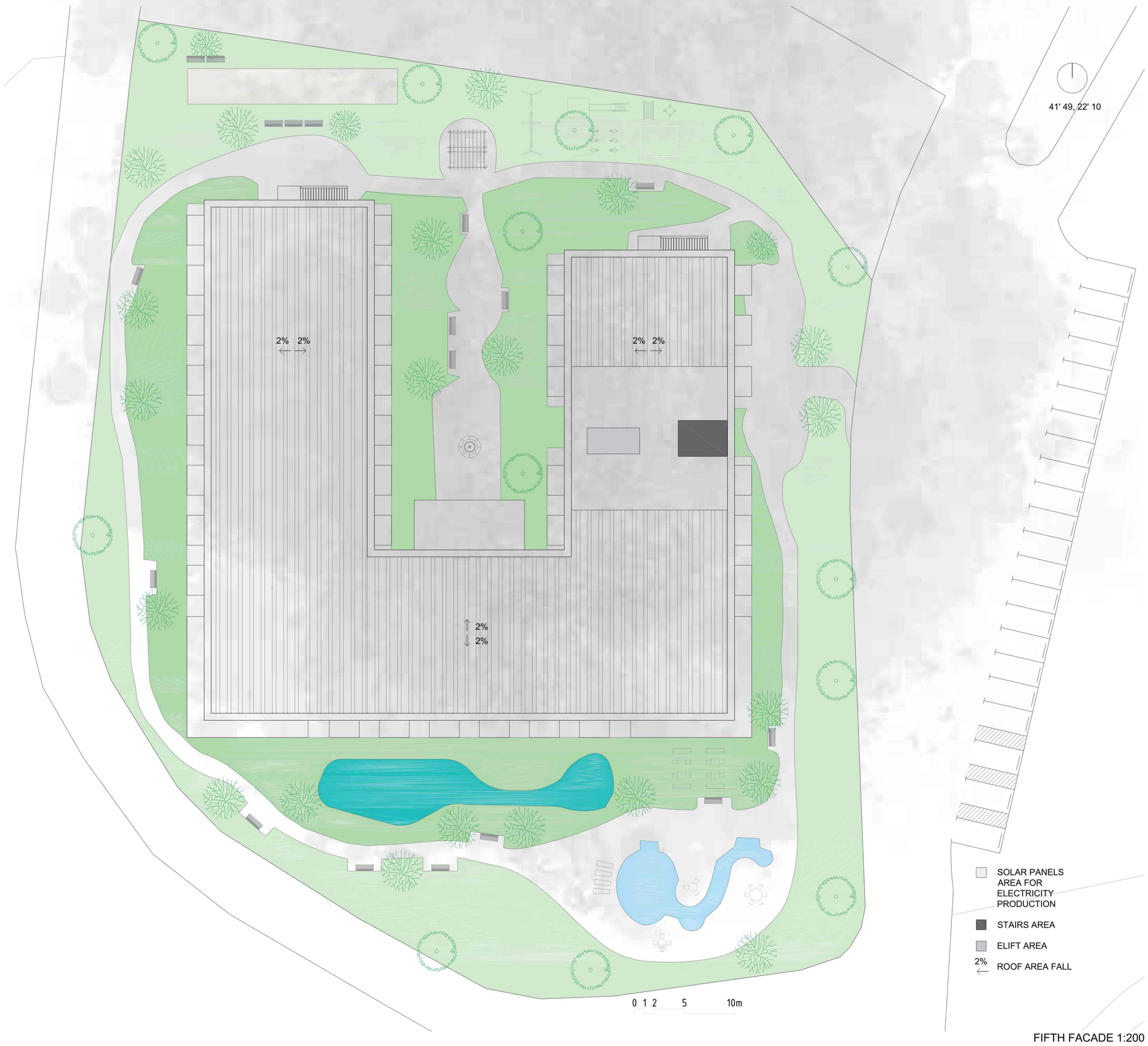
(3) PARKING AREAS FOR DISABLED PERSONS

GROUND FLOOR FOUNDATION AND GROUND FLOOR PLANNING 1:200

LEGEND:

1. STAIRCASE 28.63m2/
2. ELEVATOR 6.38m2/
3. 32x ROOMS 27 = 864m2/
4. LIVING ROOM 175.42m2/
5. KITCHEN 36.17m2/
6. DINING ROOM 114.73m2/
7. AUXILIARY TOILET 9.6m2/
8. AUXILIARY SPACES 21.17m2/
9. TERRACES 296.97m2/
10. CORRIDORS 446.3m2/
11. LAUNDRY / DRYING ROOM 20.12m2/

BASE OF FLOOR 1:200



SOLAR PANELS AREA FOR ELECTRICITY PRODUCTION

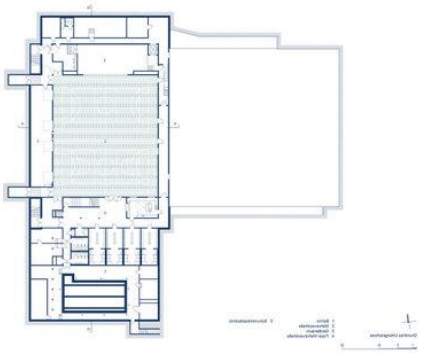
STAIRS AREA

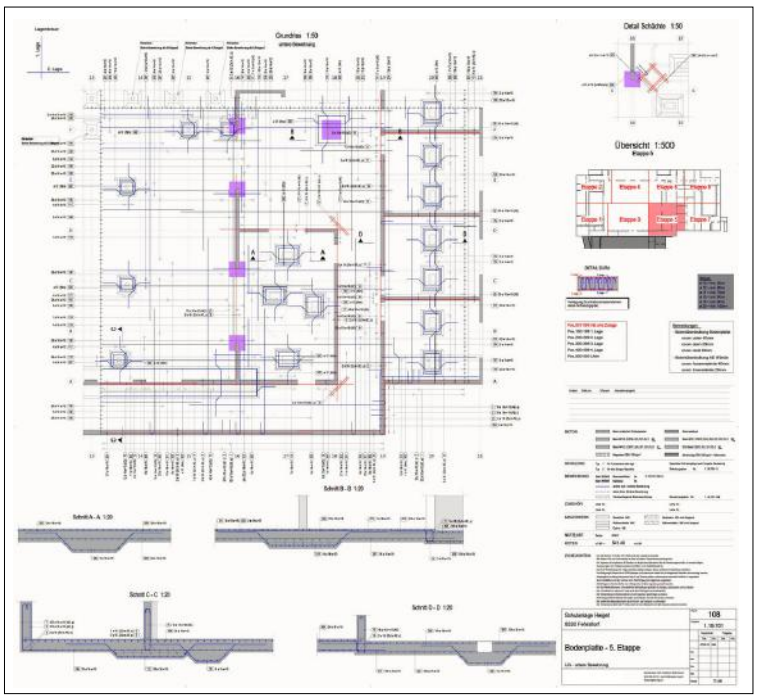
ELIFT AREA

2% ROOF AREA FALL

FIFTH FACADE 1:200

SCHOOL CAMPUS HEIGET
New multi-purpose hall with stage and swimming pool
8320 Fehraltorf, Switzerland





Construction management

b+p baurealisation

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www.caprez-ing.ch

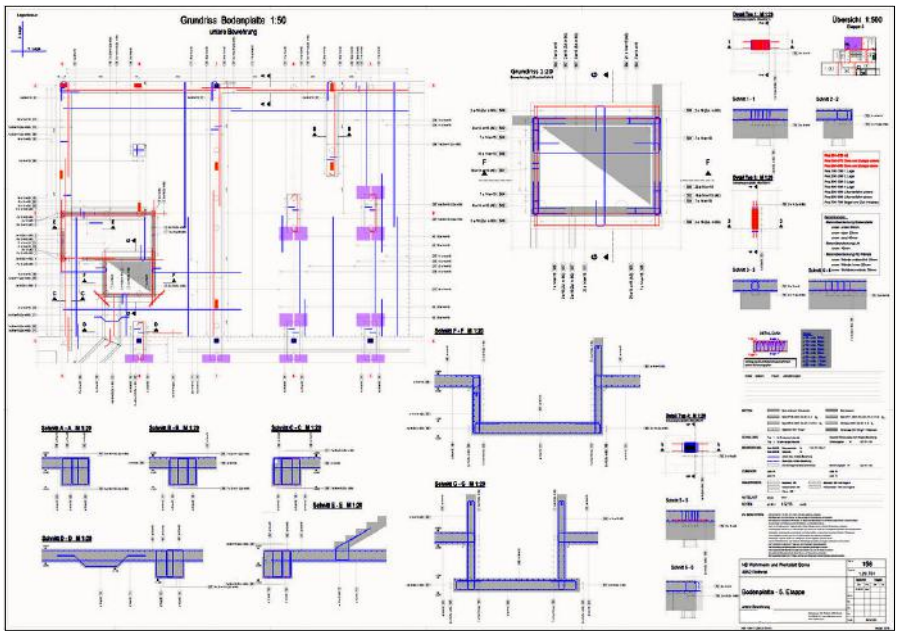
Structural planning

ALMO CH Engineers & Architects

- Reinforcement plans

NEW BUILDING FOR WORK AND RESIDENTIAL COMMUNITY IN BORNA

4852 Rothrist, Switzerland



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HOTEL HIRSCHEN
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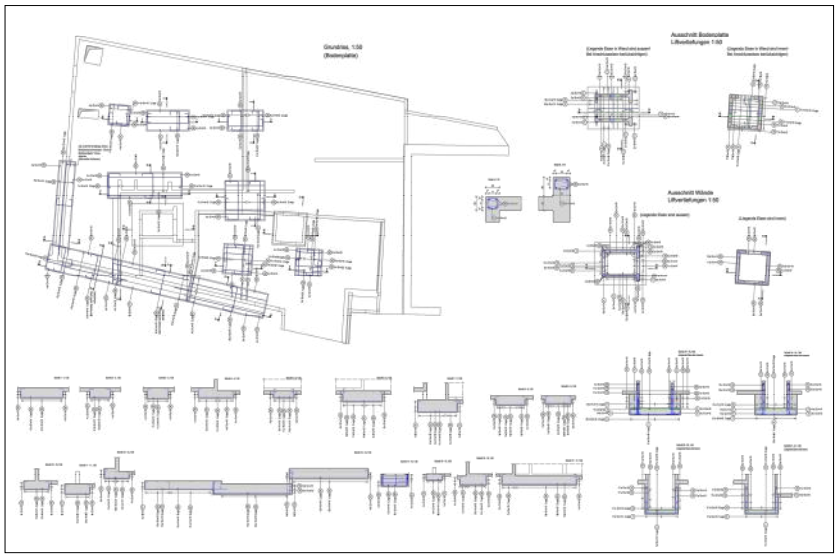

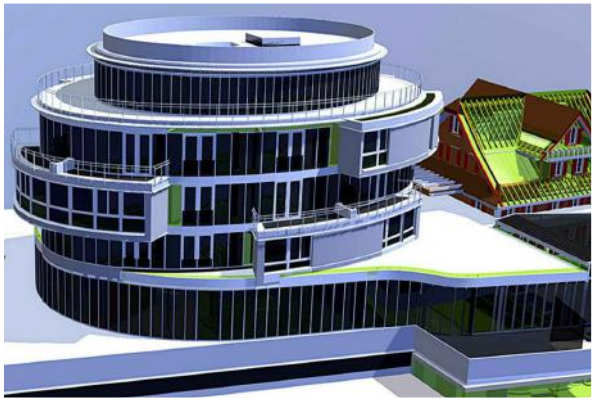

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BF architects sursee ag

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info@bfarchitekten.ch
www.bfarchitekten.ch

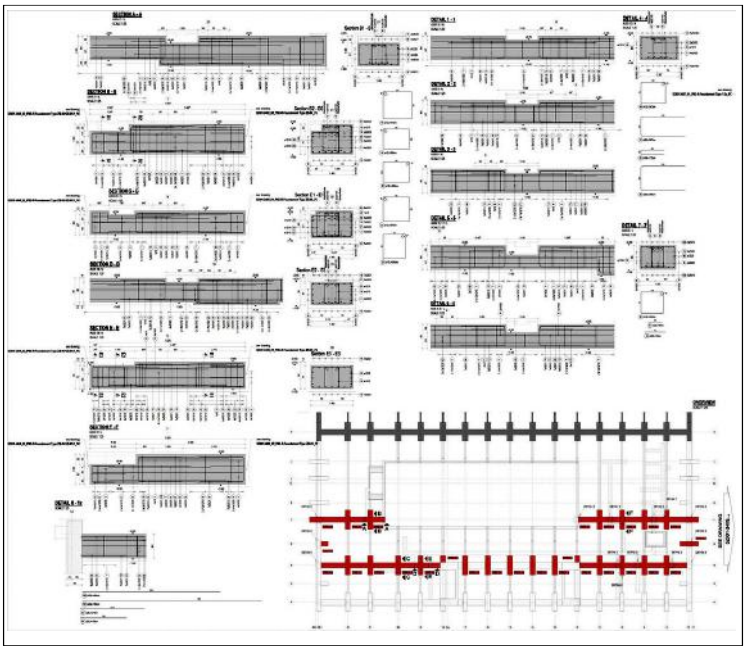
Structural planning

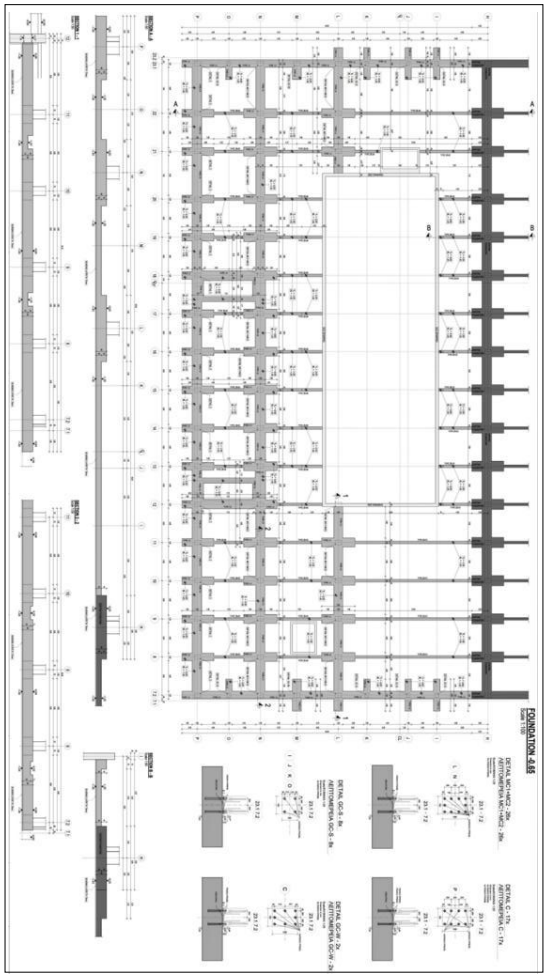
ALMO CH Engineers & Architects

- Reinforcement plans

PAPER MACHINE BUILDING 2 - INTERTRADE HELLAS PM2

Acharnes 136 72, Greece





LOCAL DESIGNER

PMA ENGINEERING

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Chalandri 152 33,
Athens, Greece
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infro@pmace.gr
www.pmace.gr

INTERNATIONAL DESIGNER

BHM INGENIEURE
ENGINEERING & CONSULTING GMBH

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6800 Feldkirch, Austria
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office@bhm-ing.com
www.bhm-ing.com

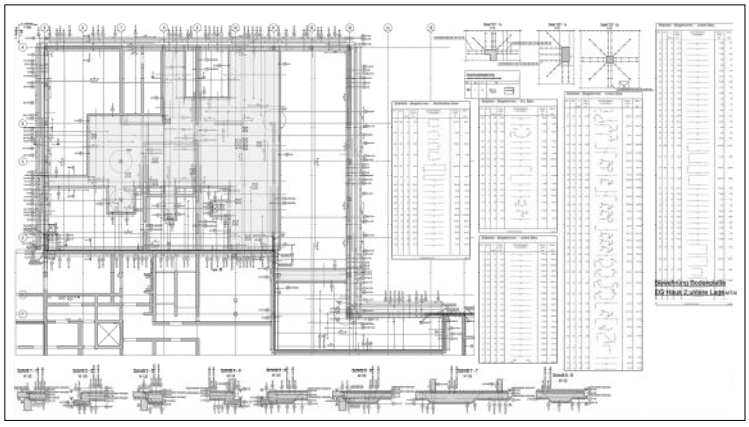
Civil Engineer

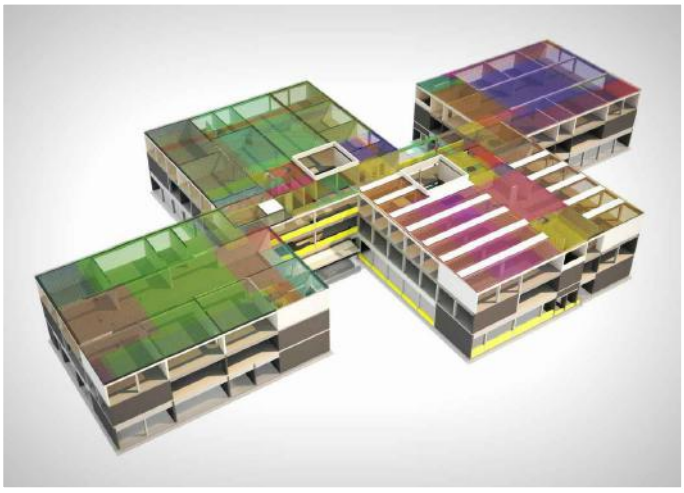
ALMO CH Engineers & Architects

- **Architectur**
  - 3D-BIM Modeling
- **Structural planning**
  - Reinforcement plans
  - Formwork plans

NEW BUILDING OF THE SCHOLL SIBLINGS DISTRICT SCHOOL WITH YOUTH CENTER AND TRIPLE-FIELD SPORTS HALL

am Glückstädter Weg, 22549 Hamburg, Germany





Client

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Planner

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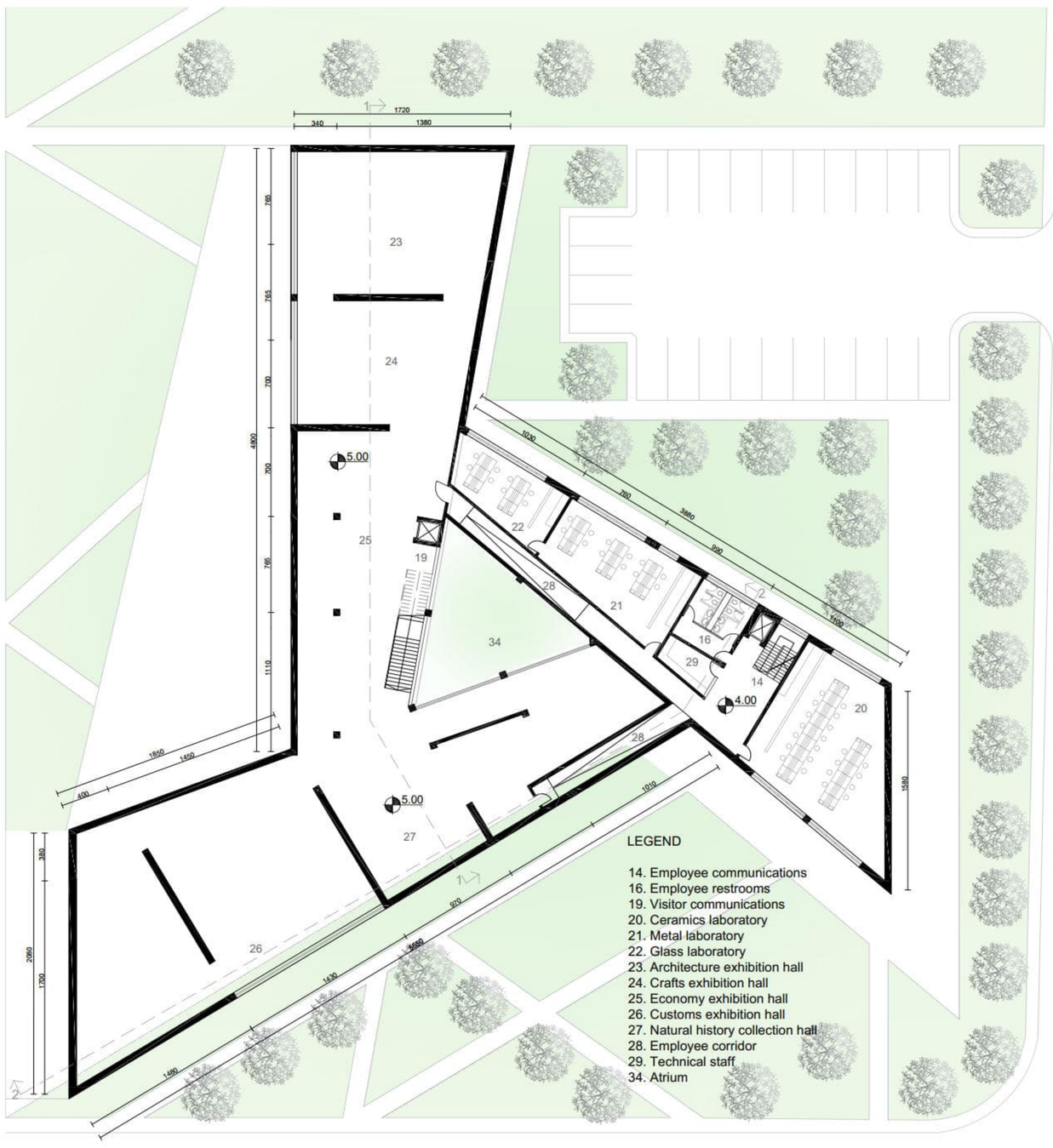
hamburg@lap-consult.com
www.lap-consult.com

Structural planning

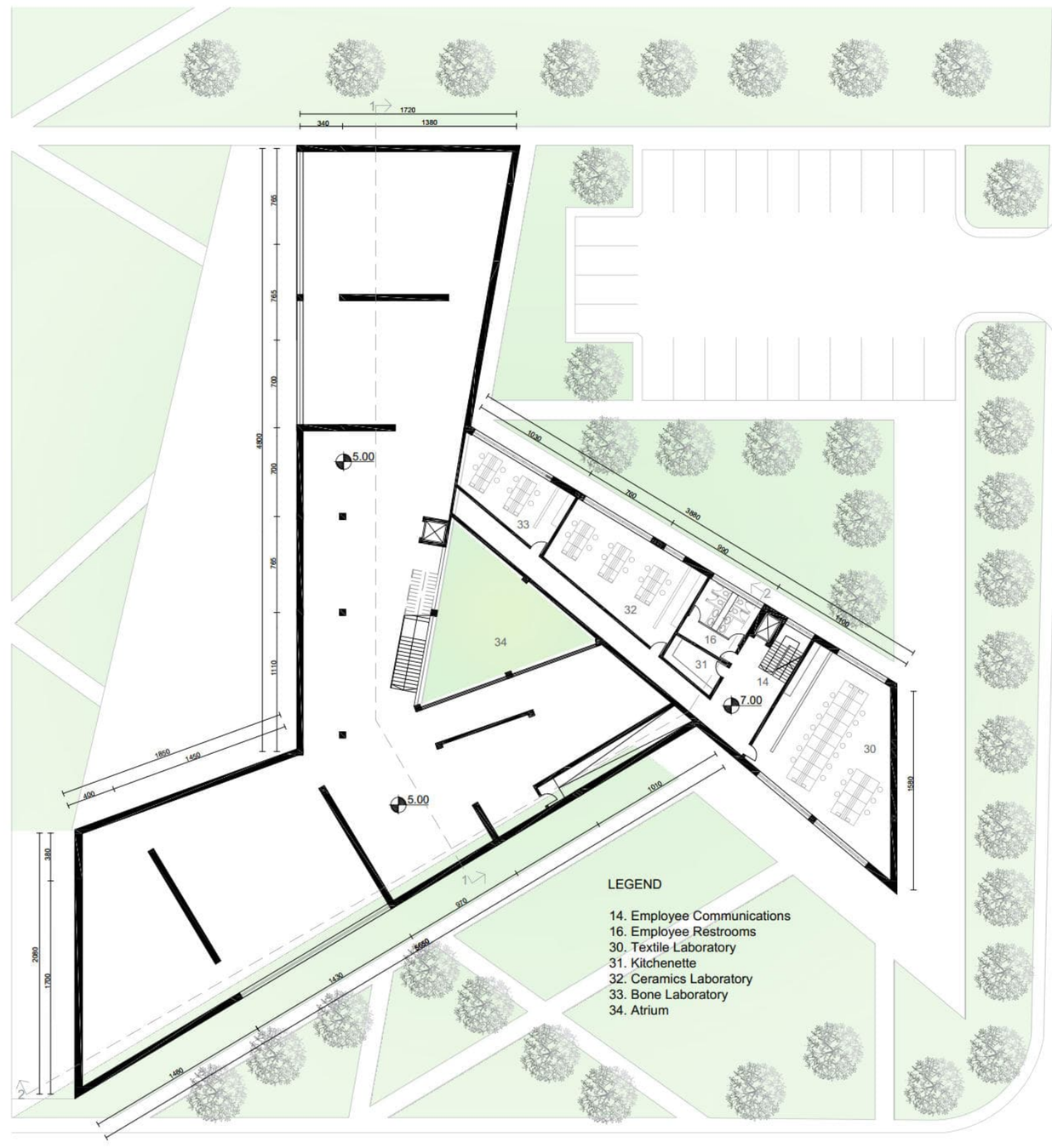
ALMO CH Engineers & Architects

- Reinforcement plans

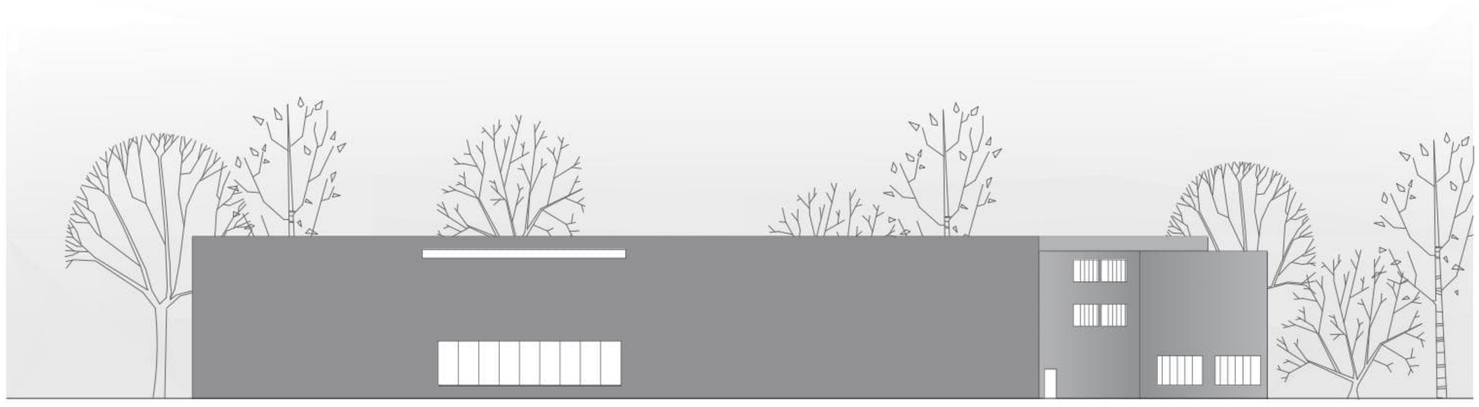
PROJECT: REGIONAL HERITAGE CENTER IN DEBAR



FIRST FLOOR FOUNDATION 1:250

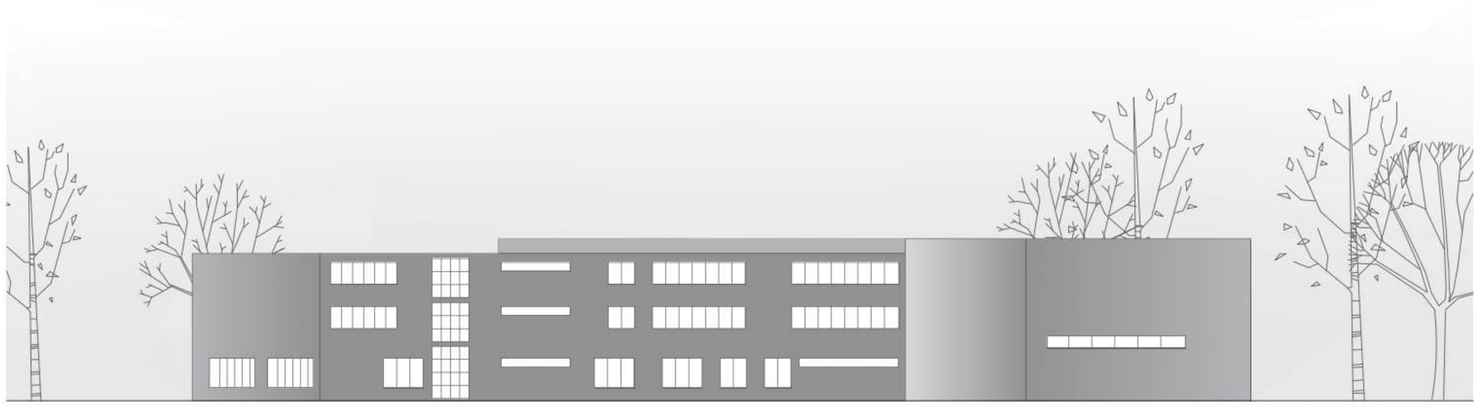


SECOND FLOOR FOUNDATION 1:250

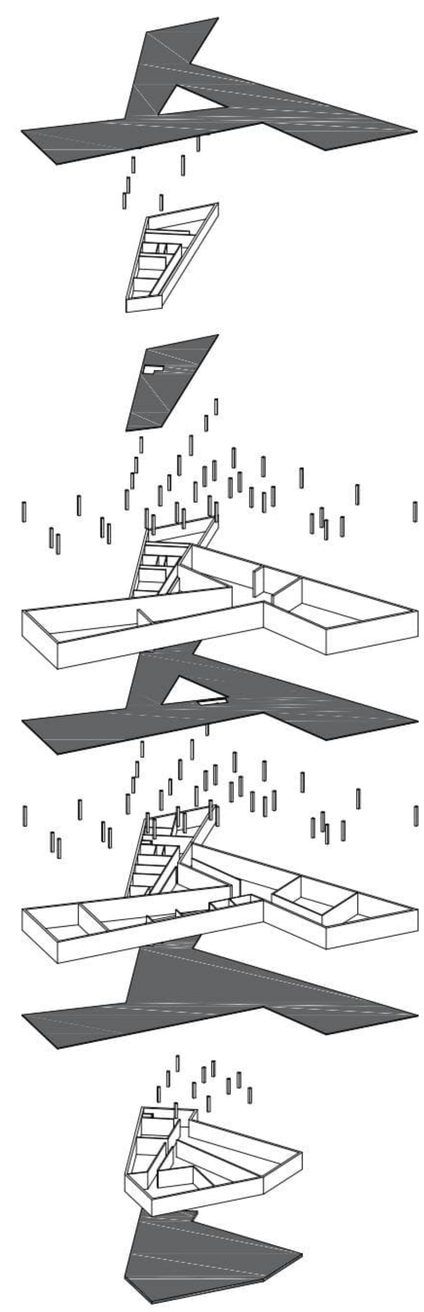


VIEW FROM THE SOUTHWEST 1:250

VIEW FROM NORTHWEST 1:250

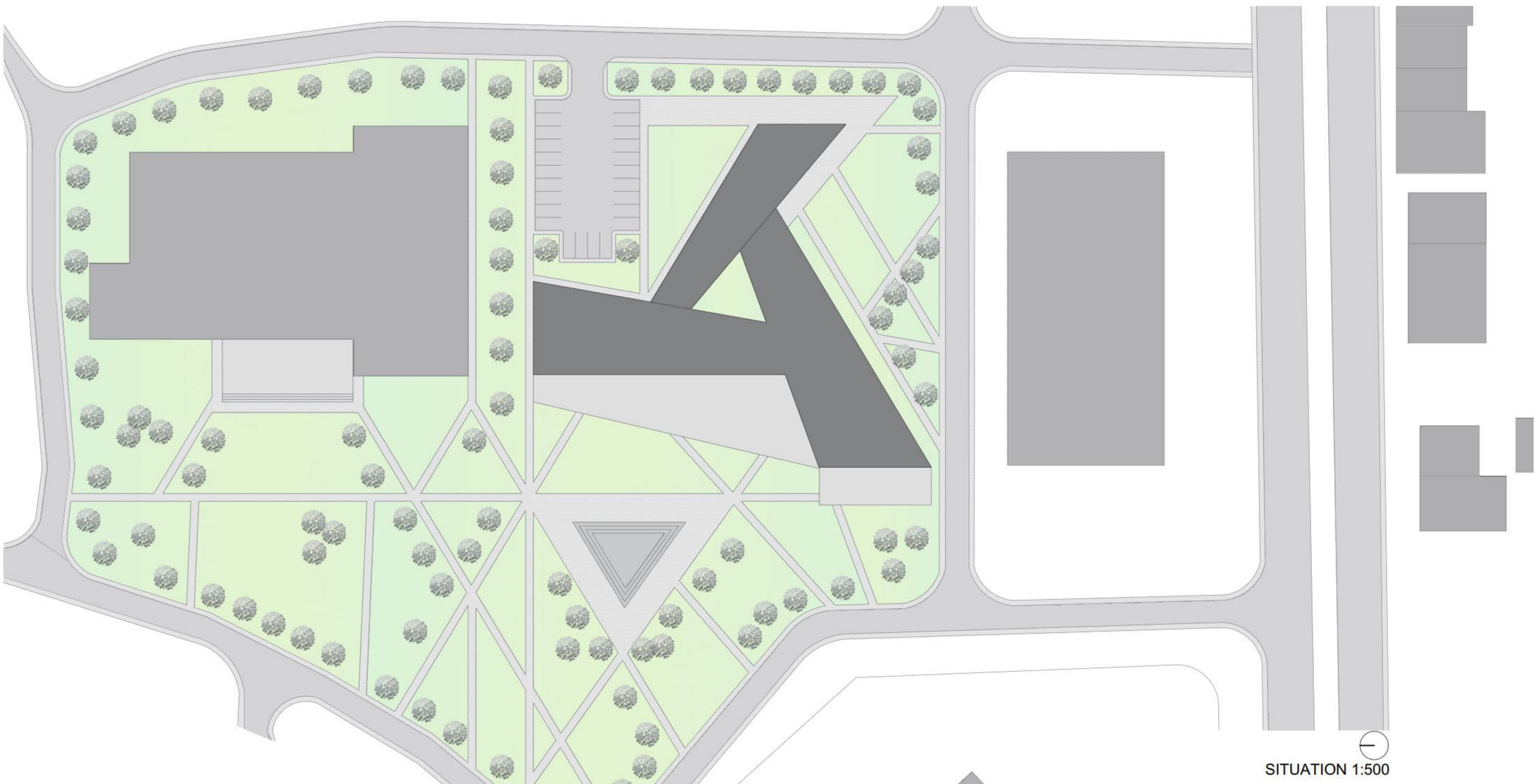


VIEW FROM THE SOUTHWEST 1:250

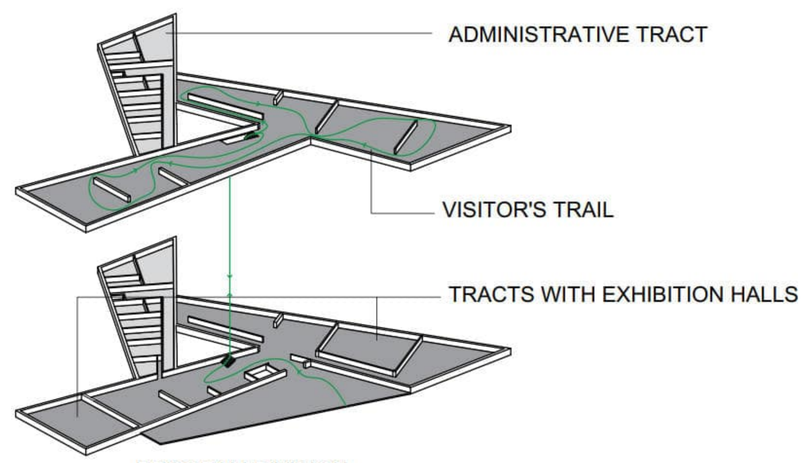


EXPLODED AXONOMETRY

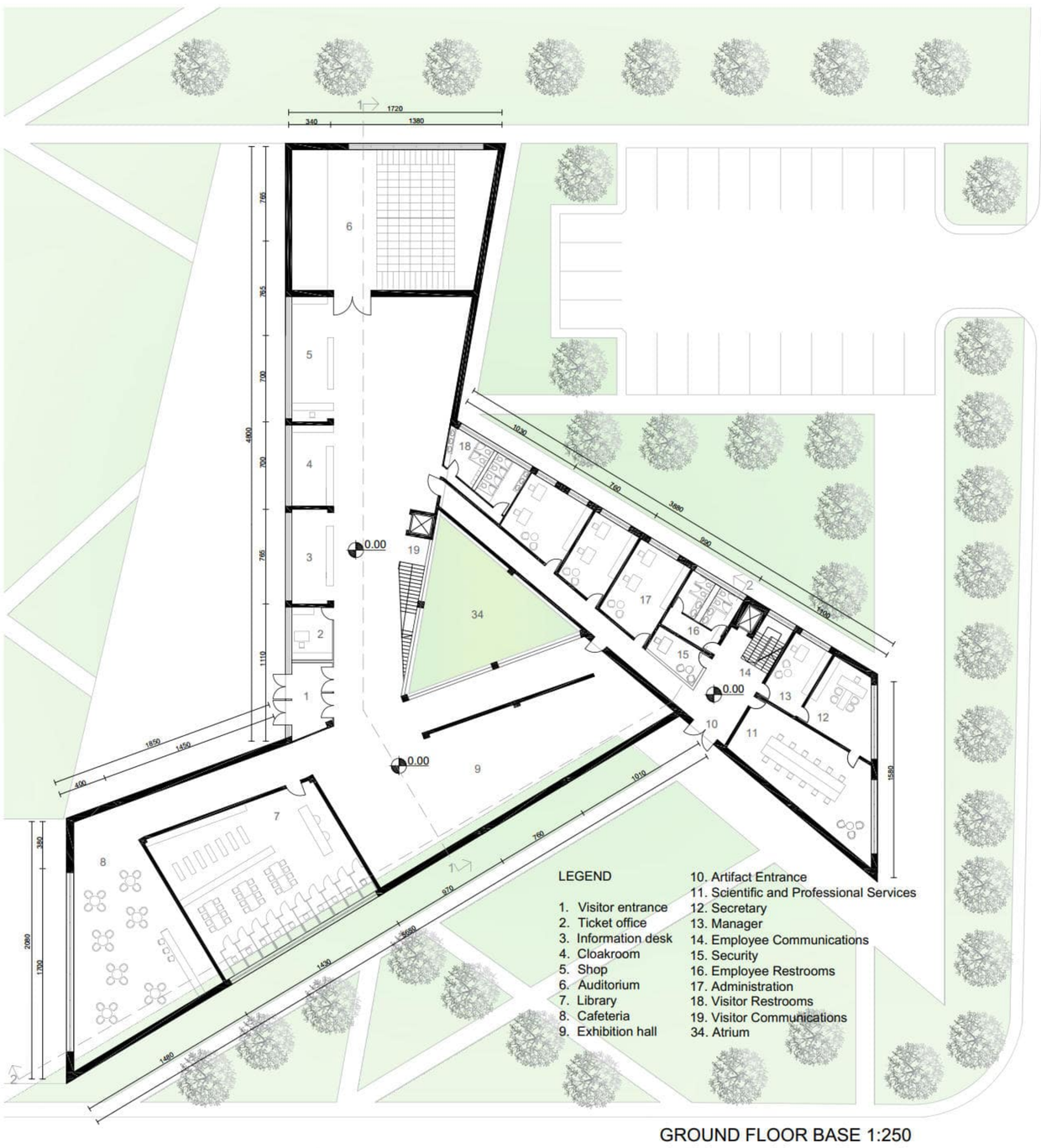
PROJECT: REGIONAL HERITAGE CENTER IN DEBAR



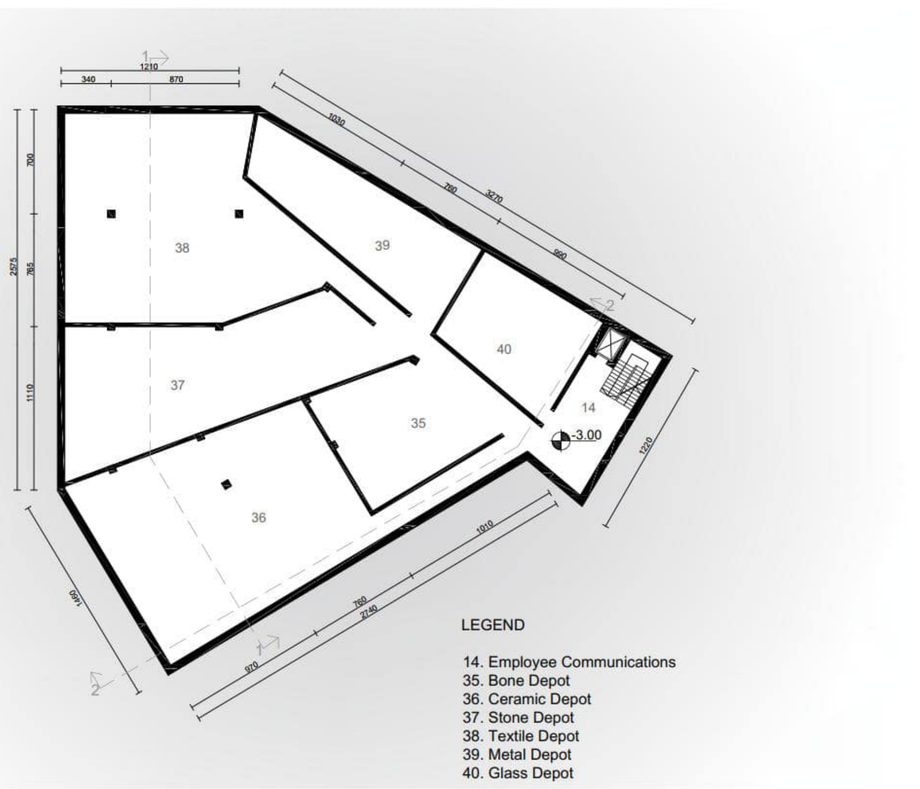
SITUATION 1:500



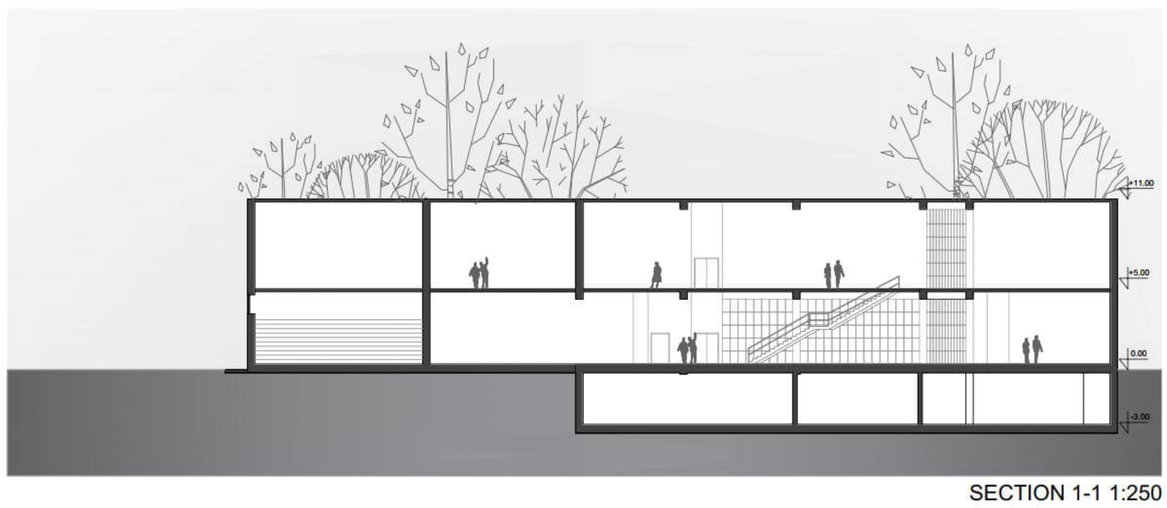
PROGRAM DIVISION



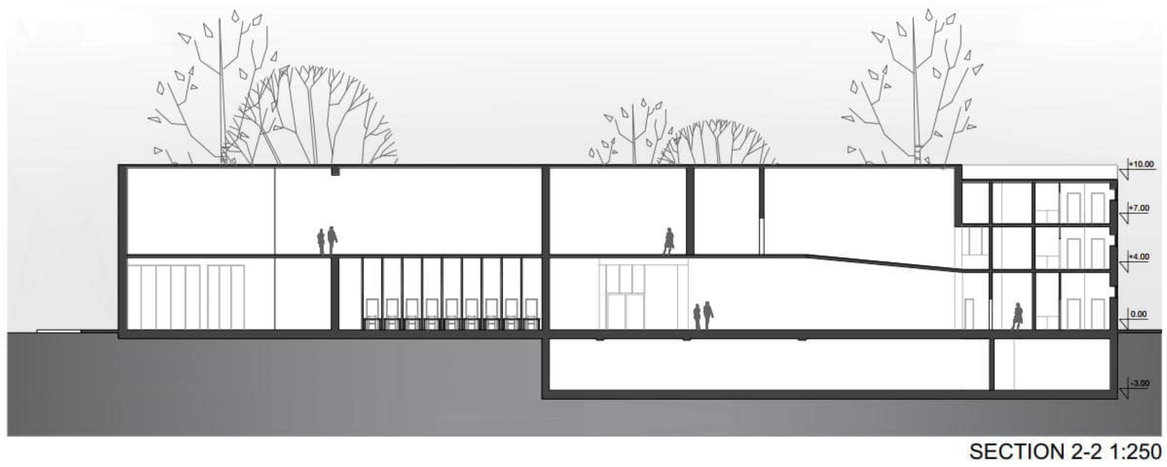
GROUND FLOOR BASE 1:250



UNDERGROUND LEVEL BASE 1:250



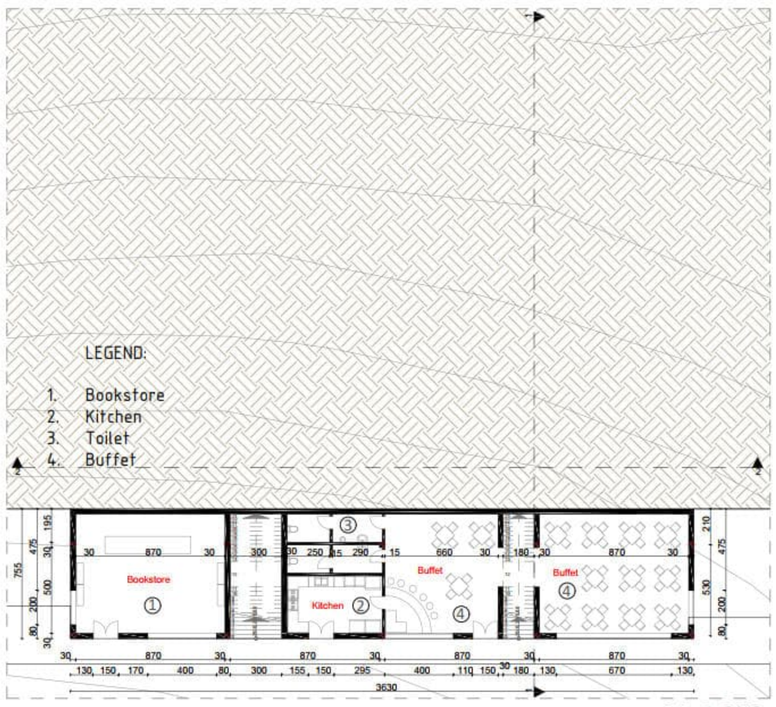
SECTION 1-1 1:250



SECTION 2-2 1:250

INSTITUTE OF FOLKLORE AND NACIONAL ARCHITECTURE IN GALICHNIK

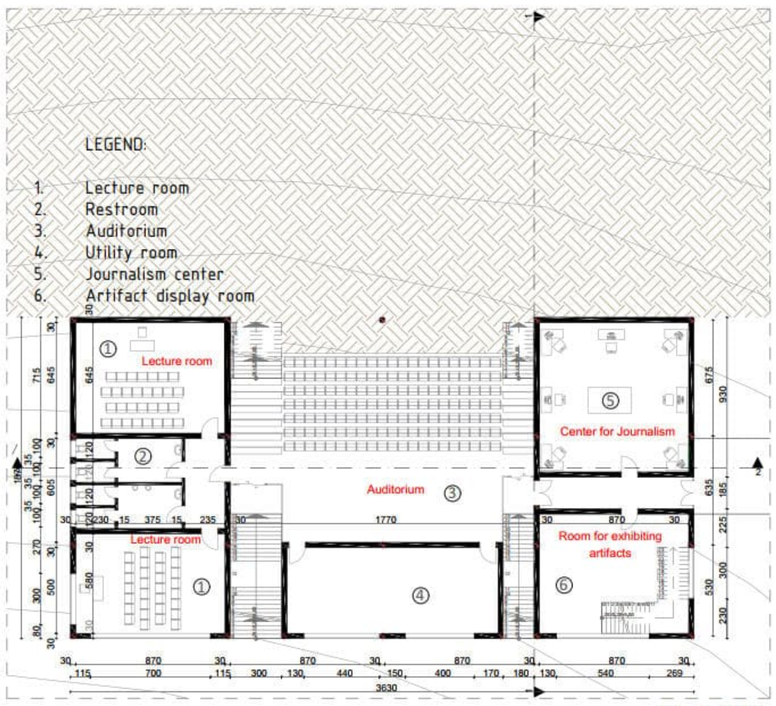
GROUND FLOOR BASE ±0.00



Commercial content

M=1:250

FLOOR BASE 1 +5.00



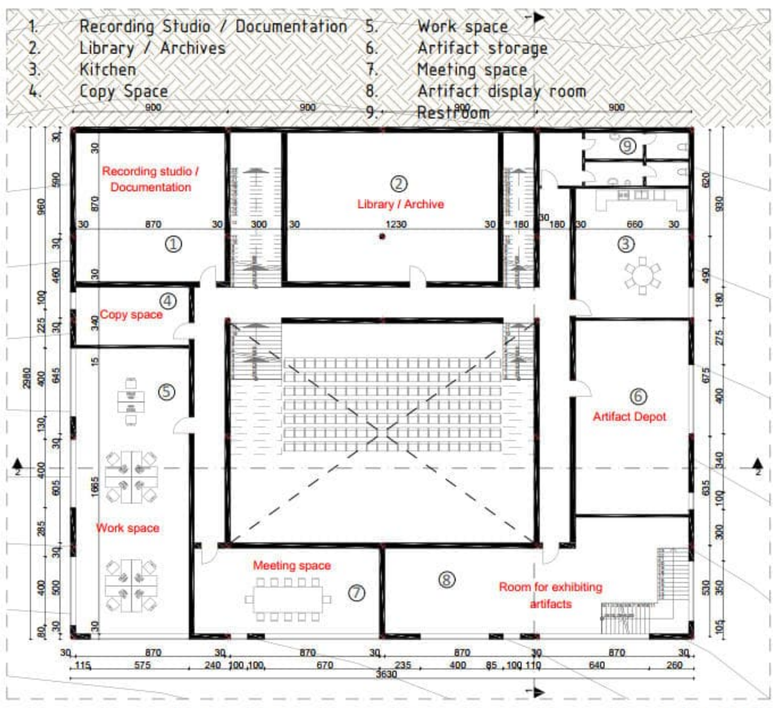
Scientific and research block

M=1:250

BASE OF KAT 2 +10.00

LEGEND:

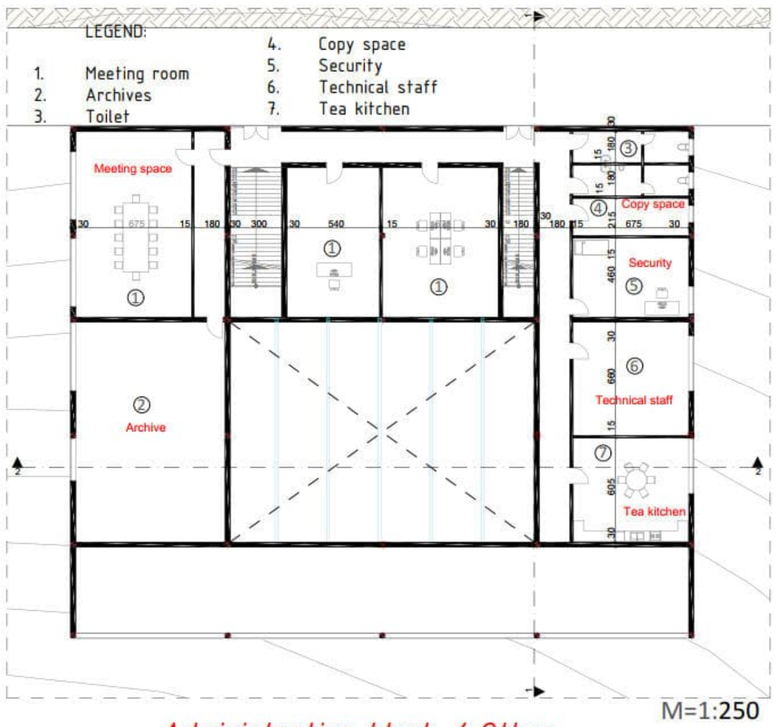
1. Recording Studio / Documentation
2. Library / Archives
3. Kitchen
4. Copy Space
5. Work space
6. Artifact storage
7. Meeting space
8. Artifact display room
9. Restroom



Scientific and research block

M=1:250

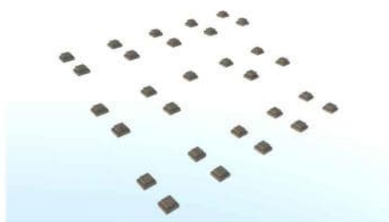
BASE OF FLOOR 3 +15.00



Administrative block / Other

M=1:250

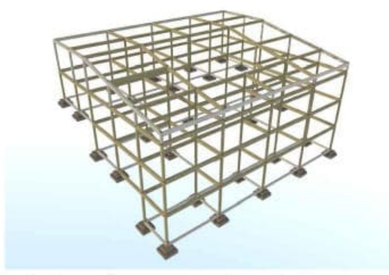
CONSTRUCTION ANALYSIS



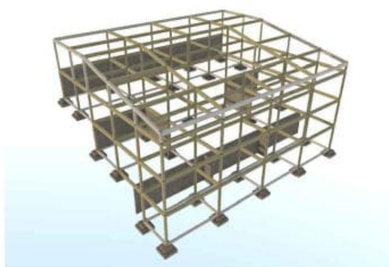
Strip foundations - 100/200cm

Strip foundations connected with ties (30/30cm) for stiffening

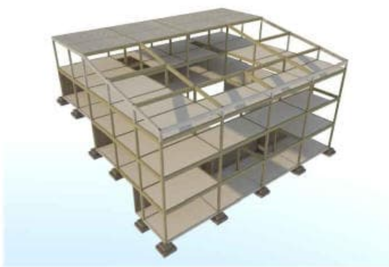
Reinforced concrete columns - 30/30cm



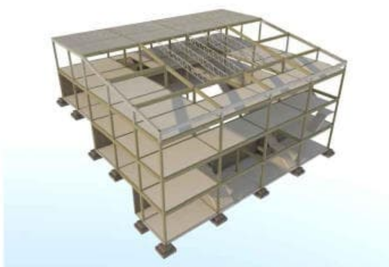
Reinforced concrete beams - 30/50cm



Reinforced concrete panels for enclosing the structure in the excavation and load-bearing capacity of the structure



Reinforced concrete slabs with a thickness of 20cm - on four levels



Steel lattice girders 13.22m long with a radius of 0.13m - covered with glass, to enclose the atrium space, to protect against low temperatures

Construction in cascading terrain

PROGRAM DIAGRAM AND SURFACE DIAGRAM

- Ground floor ±0.00 — Commercial content
  - Bookstore
  - Buffet
    - Kitchen
    - Toilet
- Floor base +5.00 — Scientific and research block
  - Auditorium — Utility room
  - Center for Journalism
  - Space for exhibiting artifacts
  - Lecture room — Toilet
- Floor basis +10.00 — Scientific research block
  - Recording studio
  - Library
    - Toilet
    - Kitchen
  - Artifact Depot — Space for exhibiting artifacts
  - Work space
    - Meeting space
    - Copy space
- Floor basis +15.00 — Administrative block / Other
  - Meeting space — Архива
  - Technical staff
    - Toilet
    - Tea kitchen
    - Copy space
    - Security

NET AREA

Base on level ±0.00

1. Bookstore 60.47m2/
2. Kitchen 18.15m2/
3. Toilet 18.50m2/
4. Buffet 113.15m2/

Base at level +5.00

1. Lecture hall 123.11m2/
2. Toilet 19.50m2/
3. Auditorium 177.95m2/
4. Auxiliary room 61.51m2/
5. Journalism center 75.69m2/
6. Artifact display room 60.47m2/

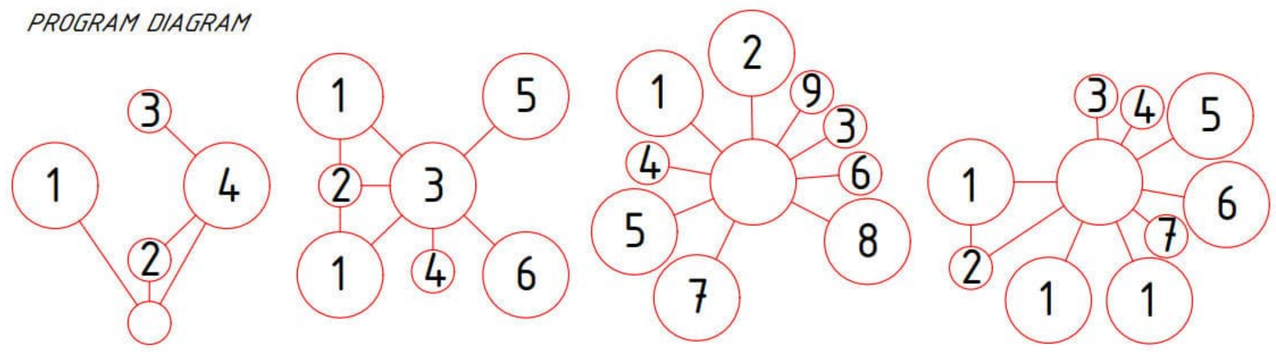
Base at level +10.00

1. Recording Studio / Documentation 60.47m2/
2. Library / Archives 107.01m2/
3. Kitchen 49.85m2/
4. Copy Space 28.38m2/
5. Work Space 103.95m2/
6. Artifact Depot 74.58m2/
7. Meeting Space 54.00m2/
8. Artifact Display Room 100.38m2/
9. Restroom 18.76m2/

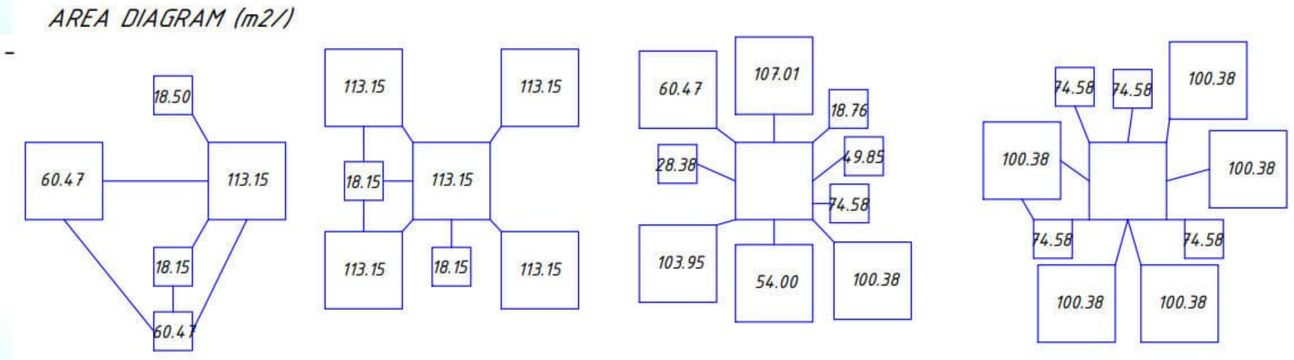
Base at level +15.00

1. Meeting room 179.91m2/
2. Archive 112.11m2/
3. Toilet 21.94m2/
4. Copy space 16.31m2/
5. Security 35.85m2/
6. Technical staff 28.48m2/
7. Kitchenette 39.83m2/

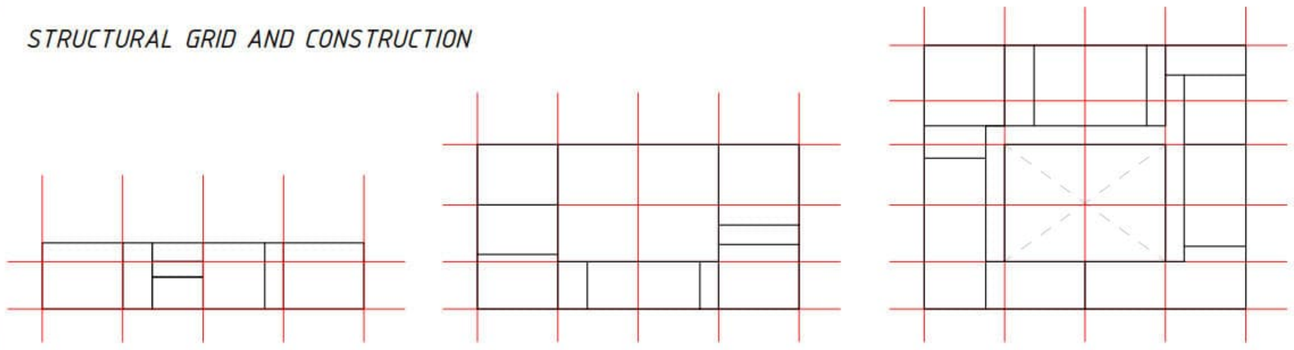
PROGRAM DIAGRAM



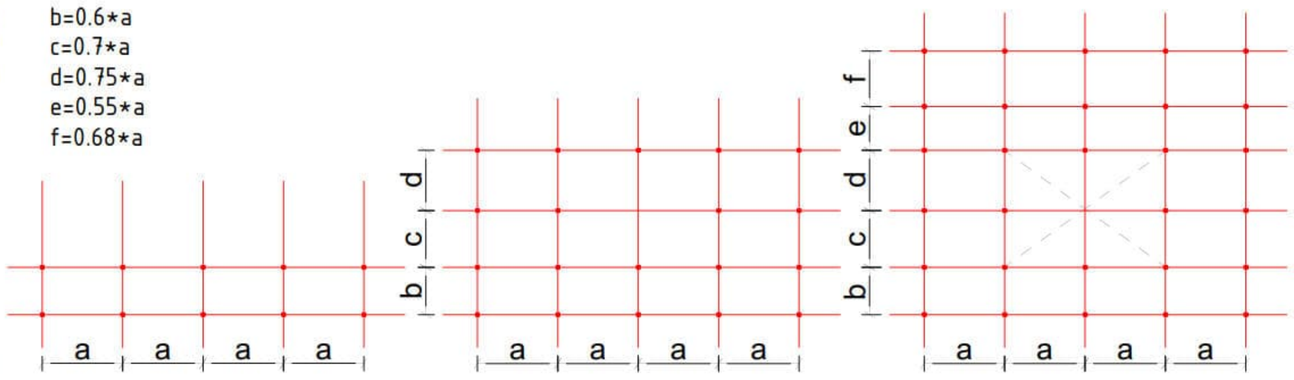
AREA DIAGRAM (m2/)



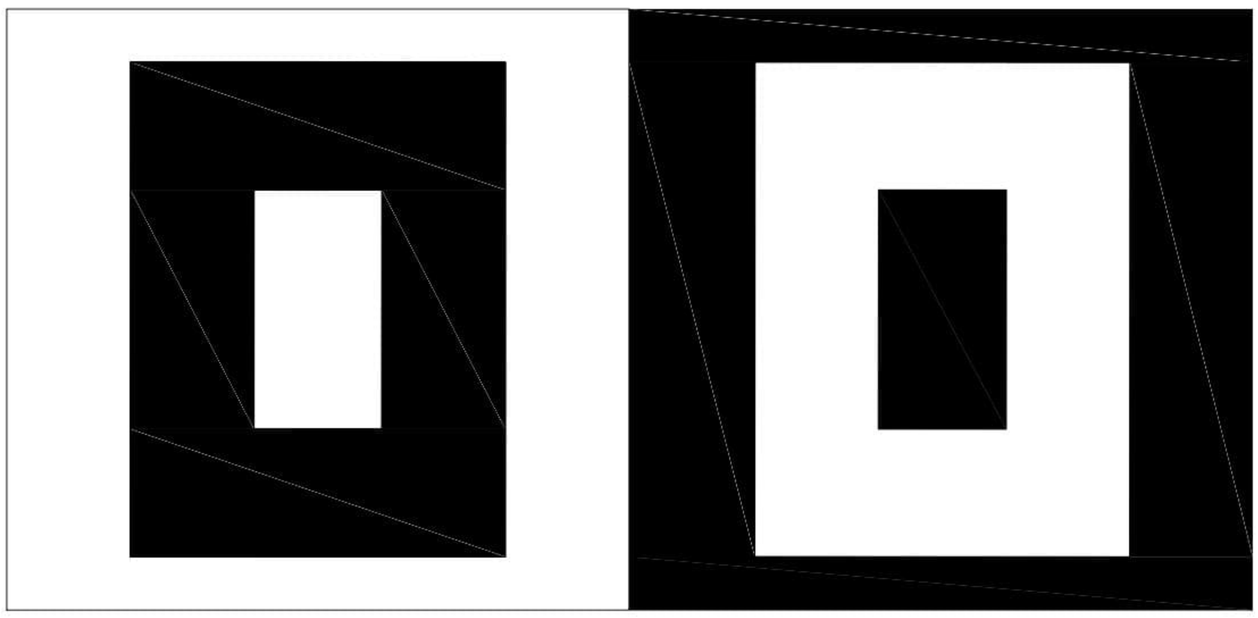
STRUCTURAL GRID AND CONSTRUCTION



b=0.6*a
c=0.7*a
d=0.75*a
e=0.55*a
f=0.68*a

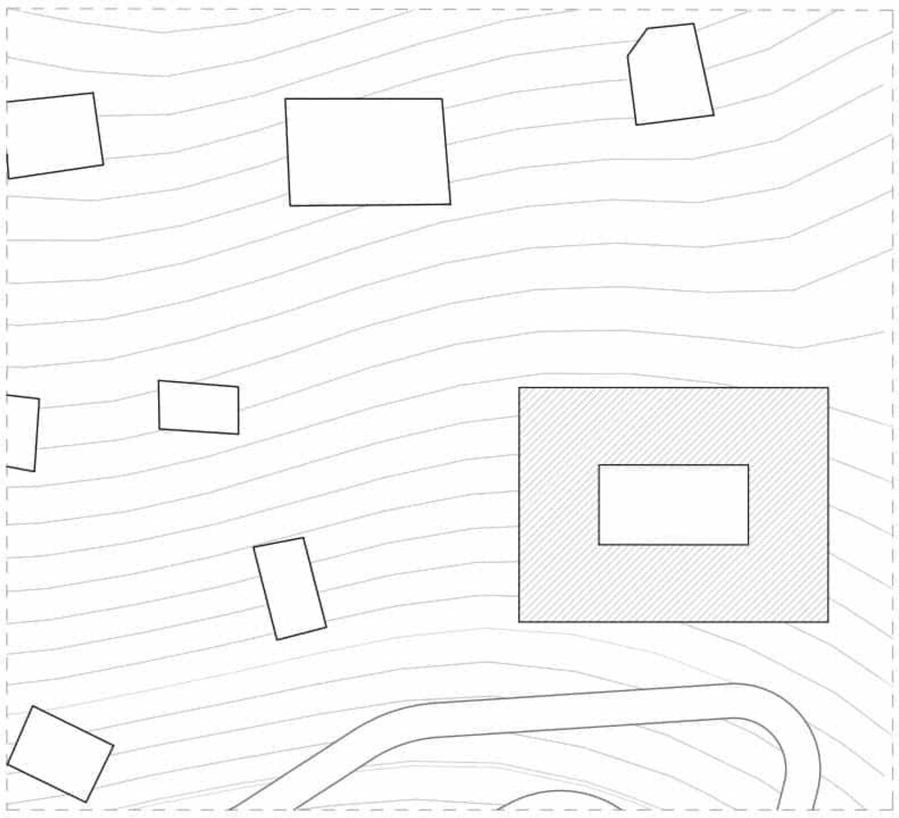


The construction of the columns is developed according to a continuous module with a dimension of 900cm (the same on all levels), but in contrast, the construction designed in rows is developed in various ways, with a free module. The facility is designed with a frame construction of strip reinforced concrete foundations that are interconnected with braces for greater safety. Then, from reinforced concrete columns, with the exception of certain places where the facility lies on the ground, reinforced concrete canvases are designed that are interconnected with reinforced concrete beams. The construction is continuous with the exception of the part where the auditorium (atrium) is developed. In order for the columns not to be located in the center of the auditorium itself, it is designed with steel lattice girders that are covered with glass so that the space is hermetically sealed.



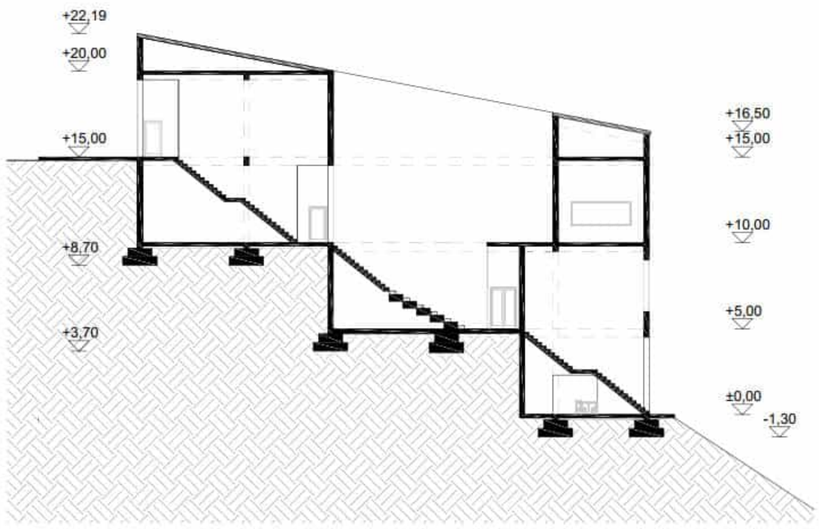
INSTITUTE OF FOLKLORE AND NACIONAL ARCHITECTURE IN GALICHNIK

SITUATION



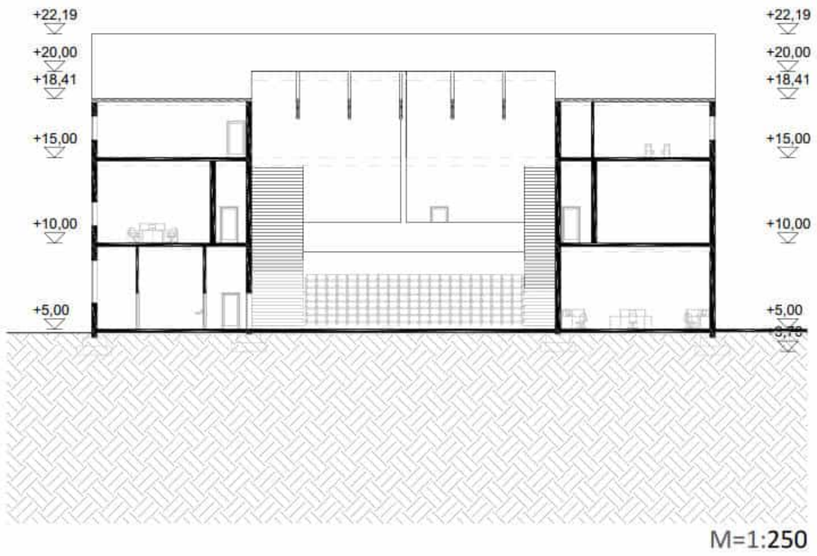
M=1:500

SECTION 1-1



M=1:250

SECTION 2-2



M=1:250

WEST FACADE

M=1:250

ПРОГРАМСКИ ПЛАН

Fourth plane - sky

Third plan - mountains

Second plan - objects

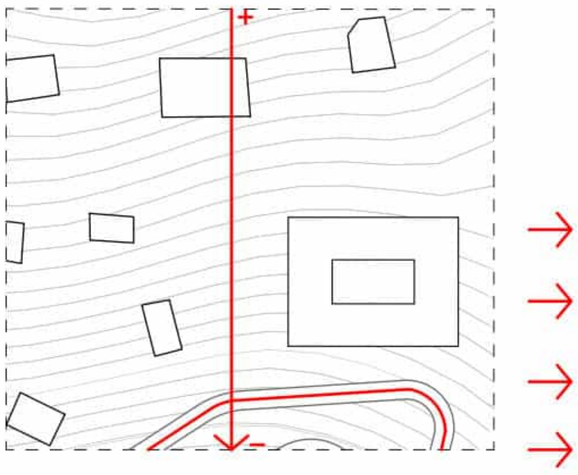
First plan - greenery

INSTITUTE OF FOLKLORE

The analyzed object is a project developed as a final semester assignment for Architectural Studio 5 - administrative buildings. It is a project for an institute of folklore with a location in the center of the village of Galichnik.

The specific location where the object was to be designed was given, and the placement of the object, the direction in which it would be facing and where the main axis of development of views would be, but also the shape of the object itself were left to our individual imagination.

FORCES ON THE PLACE

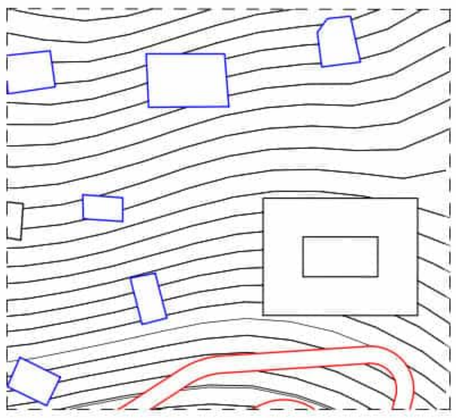


View towards the village of Galichnik

VIEWS FROM LOCATION

VIEWS TO THE LOCATION

CONCEPT OF PLACEMENT OF THE OBJECT AND OBTAINING THE FORM

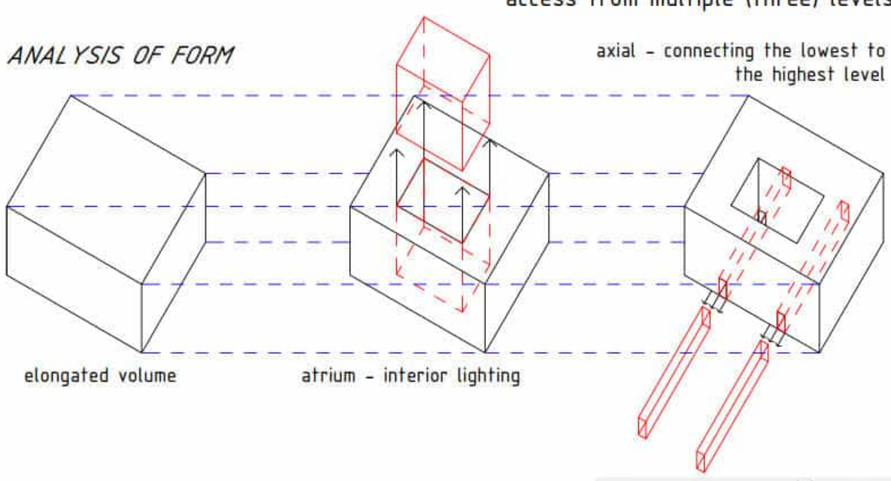


The concept for obtaining the form represents the long-standing existence of the Macedonian traditional (village) houses, which currently exist on the site.

The concept of placing the building represents a normal following of the isohyps (in decline) due to the natural, open, green mountain view, but also because the building is a larger administrative building than a normal family house, so that it can be more easily constructed without making major changes (excavations) to the natural wealth.

For these reasons, the building is designed in a cascade on three levels, just like a traditional Galichka house, which has access from multiple (three) levels.

ANALYSIS OF FORM



The initial shape of the building is a cube. However, due to the large dimensions of the building, no natural light reaches the central part, so a central cubic space was removed, resulting in a building with an atrium. Since the building is planned to be built on a sloping terrain with a slope of 30%, three levels were constructed that develop in a cascade. These levels are axially connected from the lowest (main entrance) part ±0.00 to the highest point +15.00. These removed cubic axial parts develop parallel to the terrain itself and are replaced with stair cores to connect the levels. The interior of the building, depending on the given program, is developed on the first level - a commercial part, on the second and third levels - a scientific research part, and on the fourth level an administrative part. The arrangement of the rooms on each level is obtained by rational distribution of the contents for their greatest utilization and logical positioning and grouping.

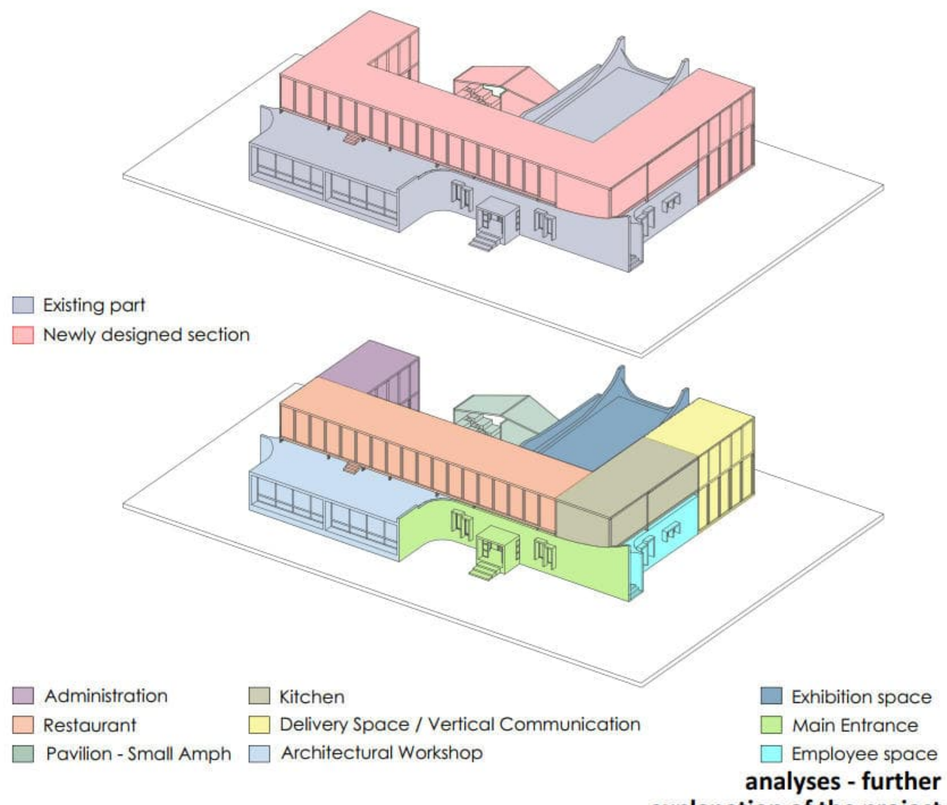
Folklore Institute

- Elongated tower
- Built on three cascades
- Four-story

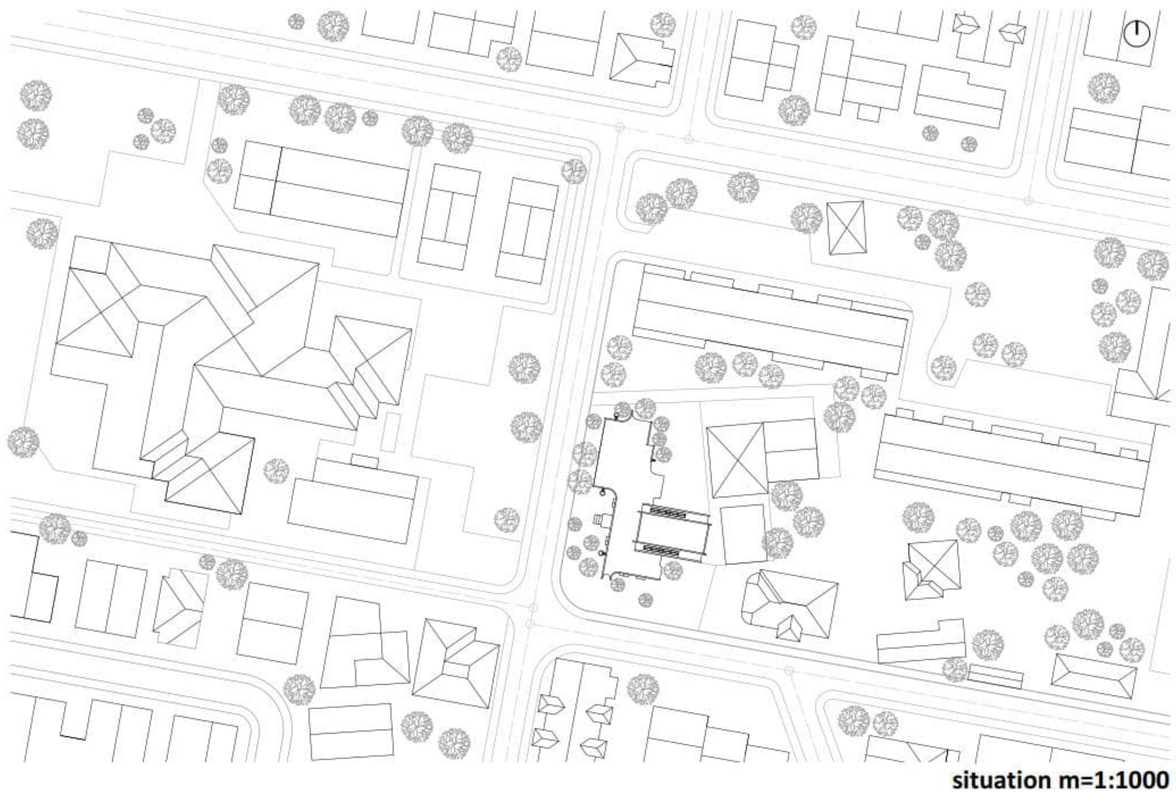
Galichka Kuca

- Square tower
- Built in three cascades
- From three to four floors

photos of the current condition of the building



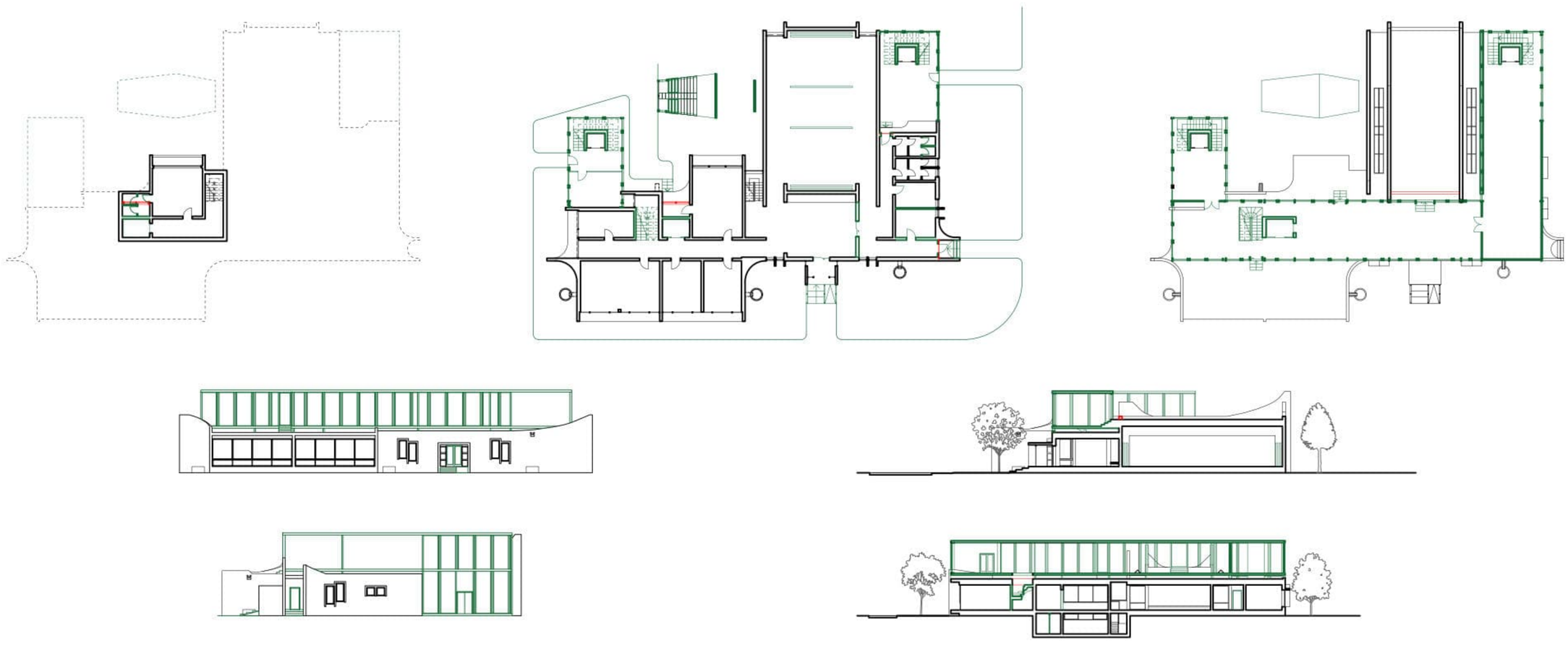
analyses - further explanation of the project



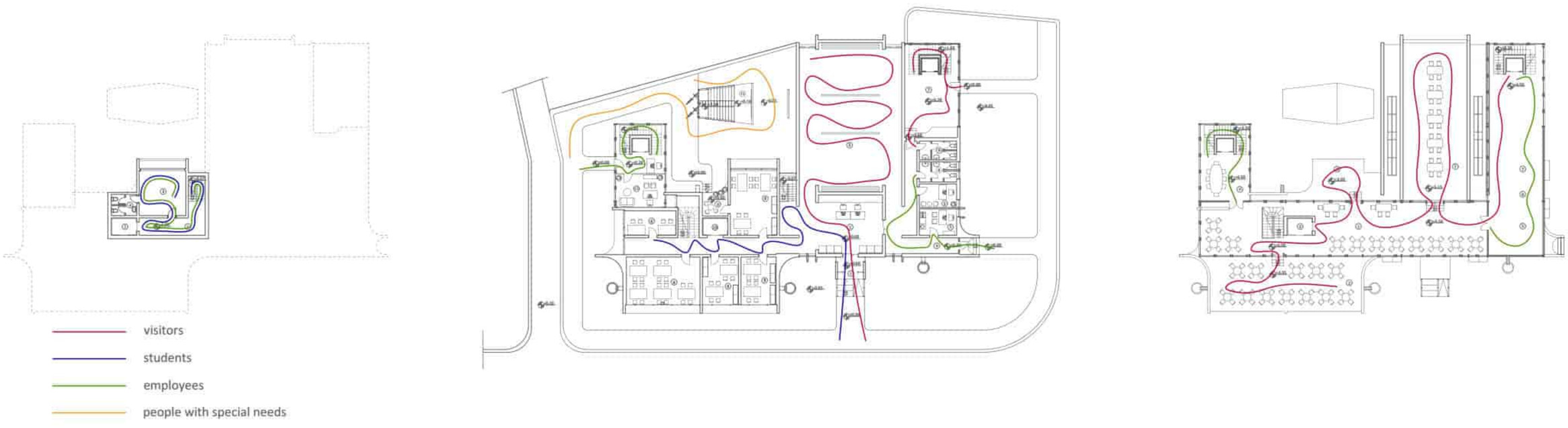
situation m=1:1000

situation m=1:500

0 5 10 20 50m



conservation-restoration ratio to the object m=1:300



program distribution m=1:300

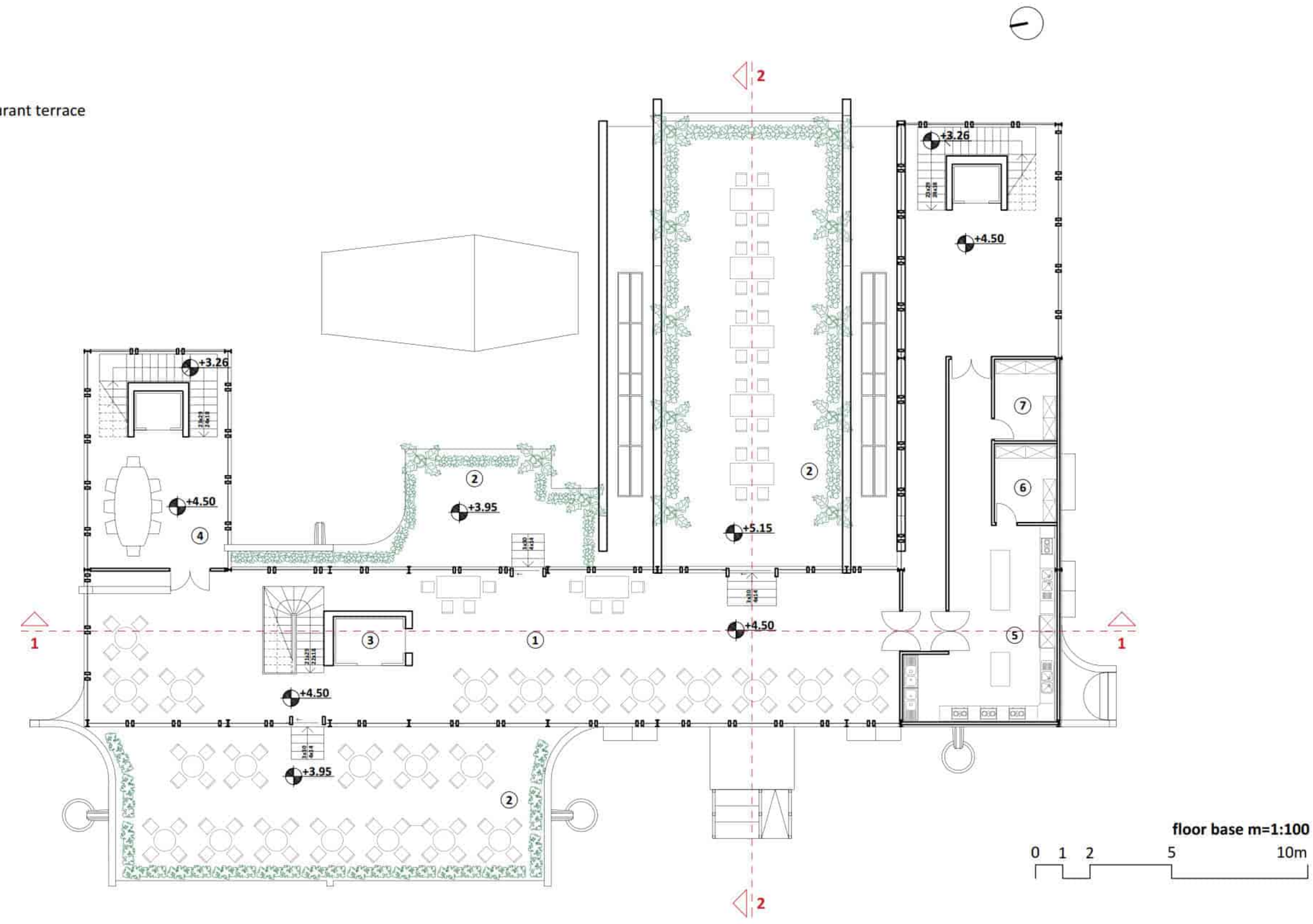
LEGEND

1. Main entrance
2. Foyer
3. Gallery
4. Official entrance
5. Staff room
6. Restroom
7. Delivery entrance / Secondary entrance to the restaurant
8. Architectural workshop
9. Smoking room / Exit to the courtyard
10. Elevator
11. Administration
12. Pavilion

ground floor foundation m=1:100

LEGEND

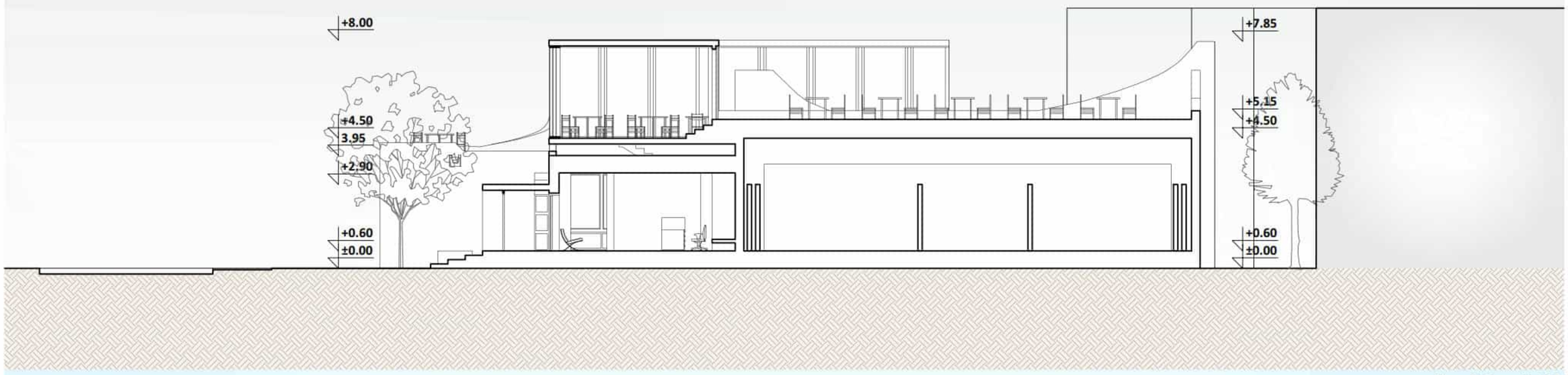
1. Restaurant
2. Rooftop restaurant terrace
3. Elevator
4. Meeting room
5. Kitchen
6. Warehouse
7. Cloakroom



floor base m=1:100

0 1 2 5 10m

section 1:1 m=1:100



section 2:2 m=1:100

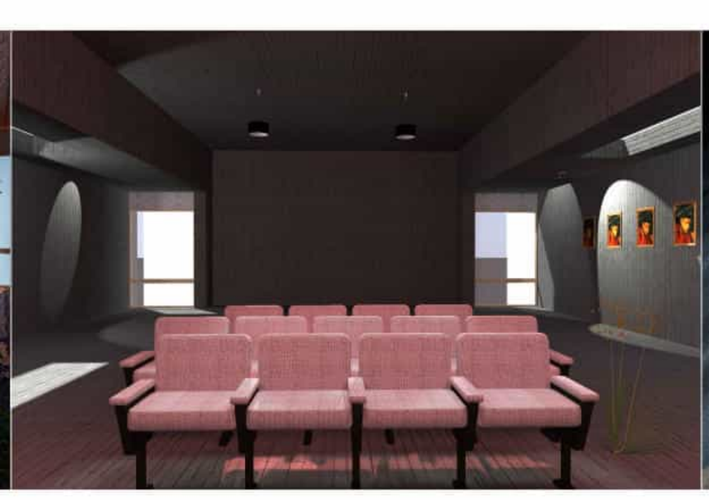
western facade m=1:100

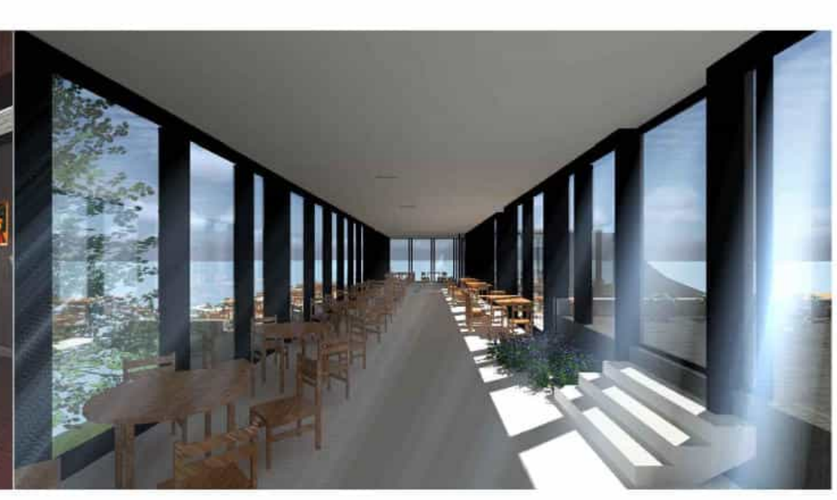
eastern facade m=1:100

southern facade m=1:100

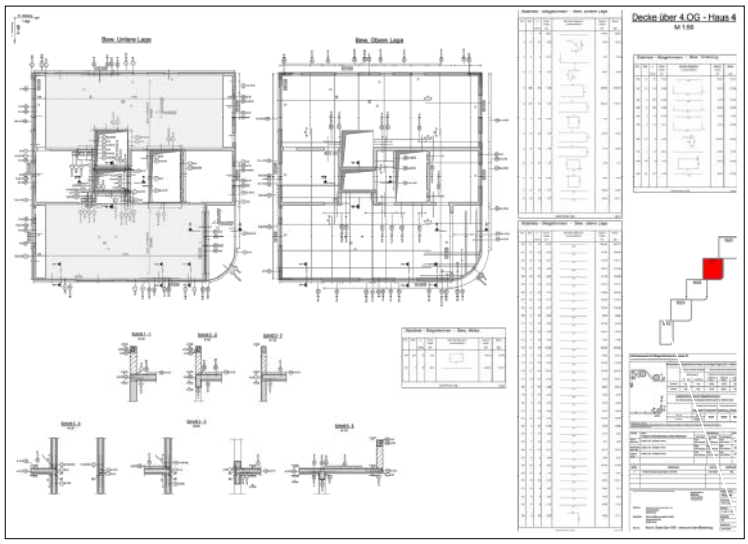
north facade m=1:100

0 1 2 5 10m





NEW RESIDENTIAL DEVELOPMENT BRÜHL
99092 Erfurt, Germany



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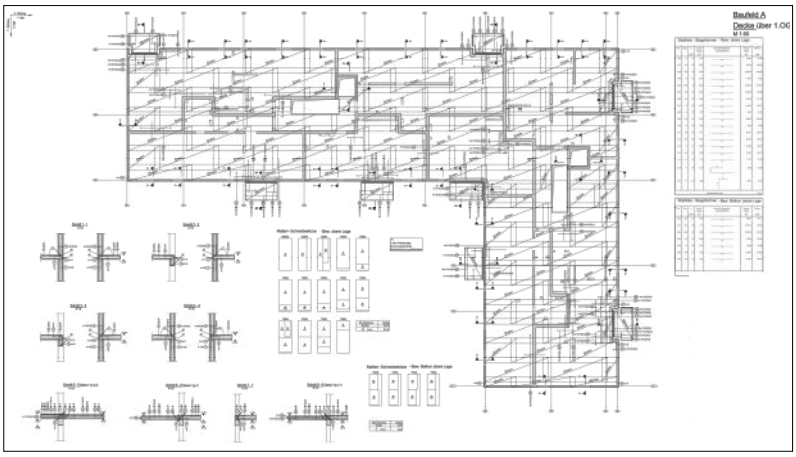

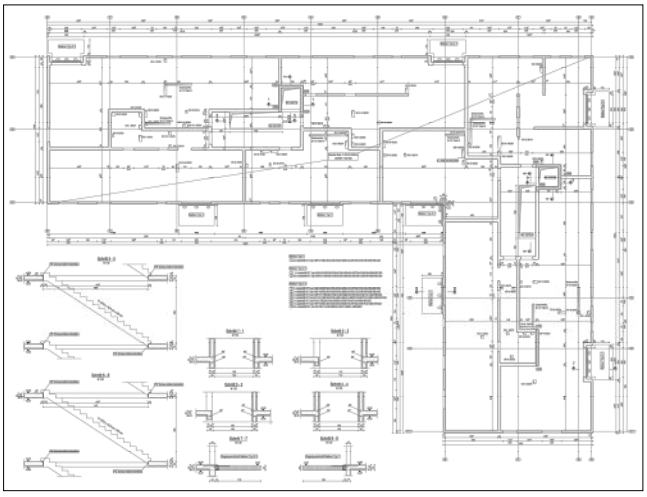

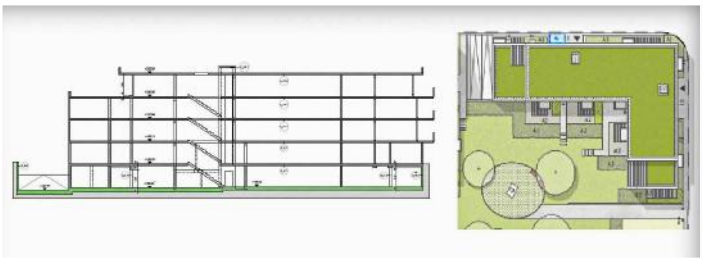

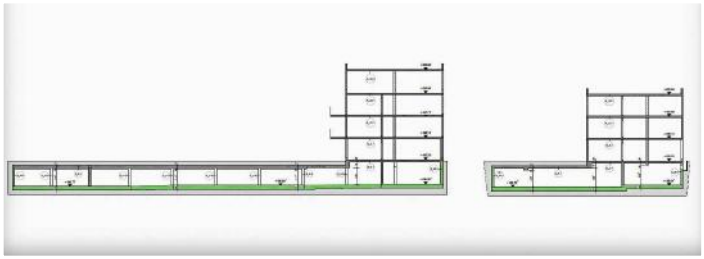

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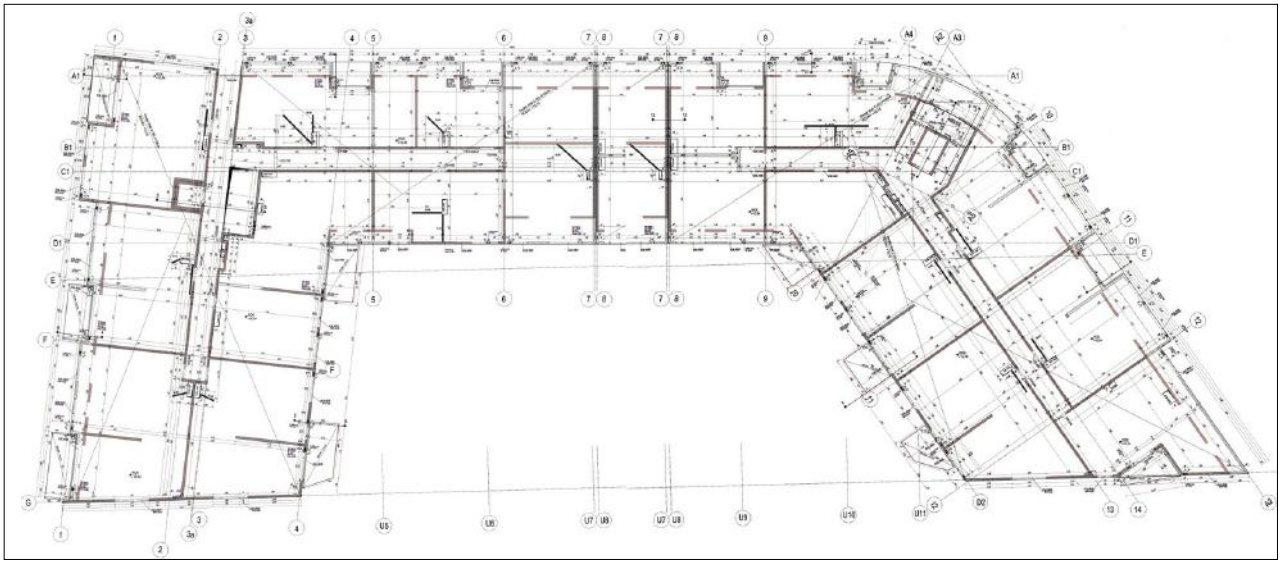

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