

Architectural project

Community Education Center in
Khoni



General Information

- Average annual temperature + 14.3 ° C
- Absolute maximum temperature + 41 ° C
- Absolute minimum temperature - 18 ° C
- Annual precipitation- 1793 mm
- Snow cover weight - 0.5 kPa
- The standard depth of frost penetration -
- Wind reporting pressure - 0.6 kPa
- The direction of the prevailing wind is - E
- According to the seismic map, Khoni belongs to the 7th seismic zone.

Planning

Building

Technical characteristics of the territory

Technical characteristics of the building

Page	Pages
2	25

Rendering



Community
Education Center
in Khoni

Project address:
Georgia,
Khoni

Stage:
Architectural project

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მიწის (უძრავი ქონების) საკადასტრო კოდი

N 37.07.38.610

ამონაწერი საჯარო რეესტრიდან

განცხადების რეგისტრაცია
N 882016064832 - 08/02/2016 16:08:06

გოგმადების თარიღი
18/02/2016 15:16:59

საკუთრების განყოფილება

ზონა	სექტორი	კვარტალი	ნაკვეთი	ნაკვეთის საკუთრების ტიპი:საკუთრება
ხონი	ქ. ხონი			ნაკვეთის დანიშნულება: არასასოფლო სამეურნეო
37	07	38	610	დამუსყვებელი ფართობი: 3083.00 კვ.მ.
მისამართი: ქალაქი ხონი , ქუჩა გურამიშვილი				ნაკვეთის წინა ნომერი:

მესაკუთრის განყოფილება

განცხადების რეგისტრაცია : ნომერი 882016064832 , თარიღი 08/02/2016 16:08:06
უფლების რეგისტრაცია: თარიღი 18/02/2016

უფლების რეგისტრაცია: თარიღი 18/02/2016

უფლების დამადასტურებელი დოკუმენტი:

- ბრძანება N39 128, ღამოწმების თარიღი:08/02/2016, ხონის მუნიციპალიტეტის გამგებელი

მესაკუთრეები:

ხონის მუნიციპალიტეტი, ID ნომერი:244961225

მესაკუთრე:

აღწერა:

სონის მუნიციპალიტეტი

ဝိဇ္ဇာတိပေဋက

საგადასახადო გირაუნობა:

რეგისტრირებული არ არის

ვალდებულება

ყაღაღა/აკრძალვა:

რეგისტრირებული არ არის

მოვალეთა რეესტრი:

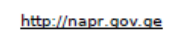
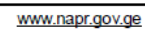
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გვერდი: 1(2)

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გვერდი: 2(2)



Existing photos



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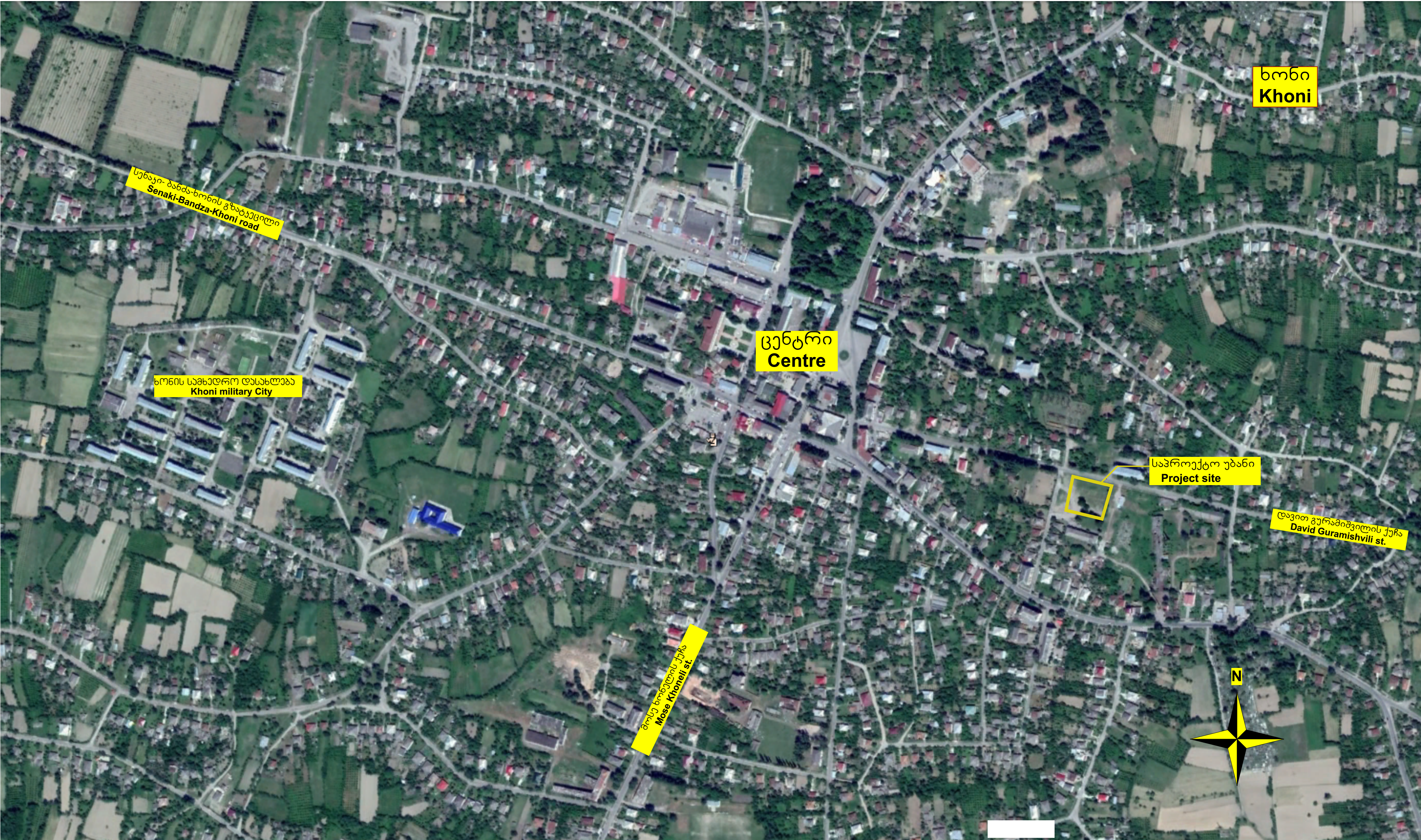
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Existing photos

Format A - 2

Layout Plan on Orthophoto



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Situational plan


Compliance analysis of the building with safety rules


Legends


- 


Wall fireproof (one hour)
- 


Educational Group EG
- 


Gathering Group GG-2
- 


Gathering Group GG-3
- 


Business Group BG
- 

Commercial Group CG
- 

Masonry of bricks and small wall blocks
- 

Hand fire extinguisher
- 

Exit Signboard
- 

Exit
- 

Maximum length exit

Decree # 41 of the Government of Georgia, Technical Regulation "Rules of Safety of Buildings" is used for the planning of the project building and land.

Used Rules - Building Safety Rules		
List the occupations in the building		
Commercial Group - CG		
Gathering group GG-2		
Gathering group GG-3		
Education Group EG		
Business group BG		
Structure Type		
Determine the construction type for the new building	V-B	
Limitations of the Height		
Occupations	Allowable Height	Offered Height
Commercial Group - CG	1st floor	1st floor
Gathering group GG-2	1st floor	
Gathering group GG-3	1st floor	
Education Group EG	1st floor	
Business group BG	2nd floor	
Overall height	12.2	3.00
Number of floors above the ground level		3rd floor

Limitations of the area		
Occupations	Allowable area	Offered area
		1st floor
Commercial Group - CG	840	155.8 m²
Gathering group GG-2	560	15.7 m²
Gathering group GG-3	560	73.5 m²
Education Group EG	880	89.3 m²
Business group BG	840	84.2 m²
Total area of the flooring	625.45 m²	
Number of flooring	Above the ground level 1	
Total area of the building	701.4 m²	

Requirements to the aperture of the external wall					
External wall	Fire separation distance	Area of the wall aperture			
		Allowable		Planned	
		Protected	Unprotected	Protected	Unprotected
Axis 10-1	15 m.	Not limited	Not limited		13.8 %
Axis 1-□	4 m.	45 %	15 %	-	14.4 %
Axis 1-10	7 m.	Not limited	45 %		38 %
Axis □-1	7.3 m.	Not limited	45 %		21 %

Requirements for fire protection system		
Is there an autospray system provided		No
Is there riser main system provided		No
Is there a smoke control system provided		No
Is there fire extinguishers provided	yes	
Is ther a fire alarm sytem provided		No
Installation of illumination for evacuation		No

Number and width of exits for Commercial group CG						
Floors	Number of exits		Width of exit			
			Staircases		Other components	
	Required	Provided	Required	Provided	Required	Provided
I Floor	1	2			0.82	0.90-1.5

Number and width of exits for Gathering goup GG 2						
Floors	Number of exits		Width of exit			
			Staircases		Other components	
	Required	Provided	Required	Provided	Required	Provided
I Floor	1	1			0.82	1.0

Number and width of exits for Gathering goup GG 3						
Floors	Number of exits		Width of exit			
			Staircases		Other components	
	Required	Provided	Required	Provided	Required	Provided
I Floor	1	2			0.82	1.0

Number and width of exits for Business goup BG						
Floors	Number of exits		Width of exit			
			Staircases		Other components	
	Required	Provided	Required	Provided	Required	Provided
I Floor	1	1			0.82	1.0

Number and width of exits for Education goup GG 3						
Floors	Number of exits		Width of exit			
			Staircases		Other components	
	Required	Provided	Required	Provided	Required	Provided
I Floor	1	1			0.82	1.0

Number of fixed appliances of water supply system						
Calculation of occupation load						
Fixed appliances		Required			Provided	
		I			I	
Toilet bowl	8				8	
Toilet washbasin	8				8	
Serving washbasin	1				1	

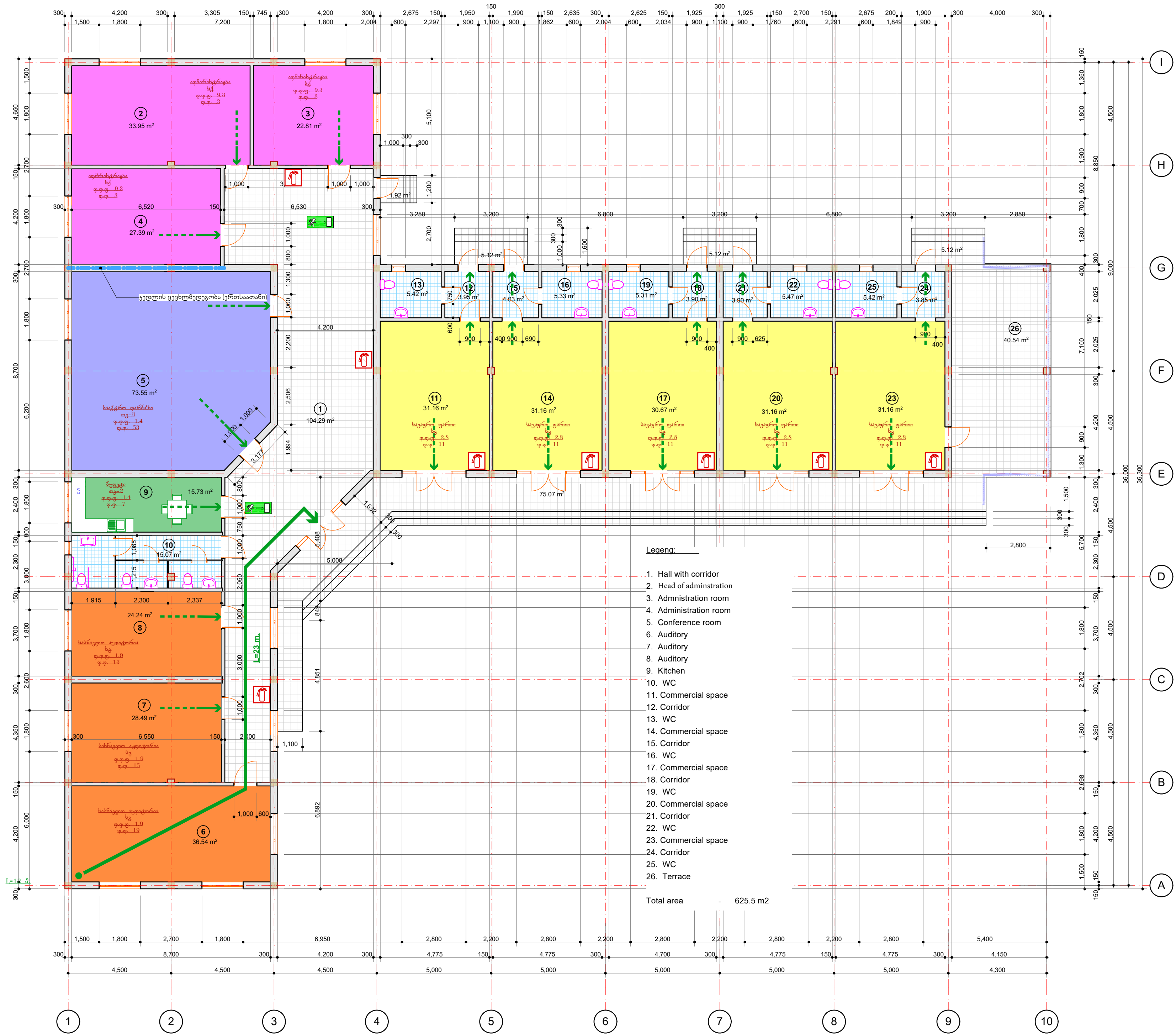
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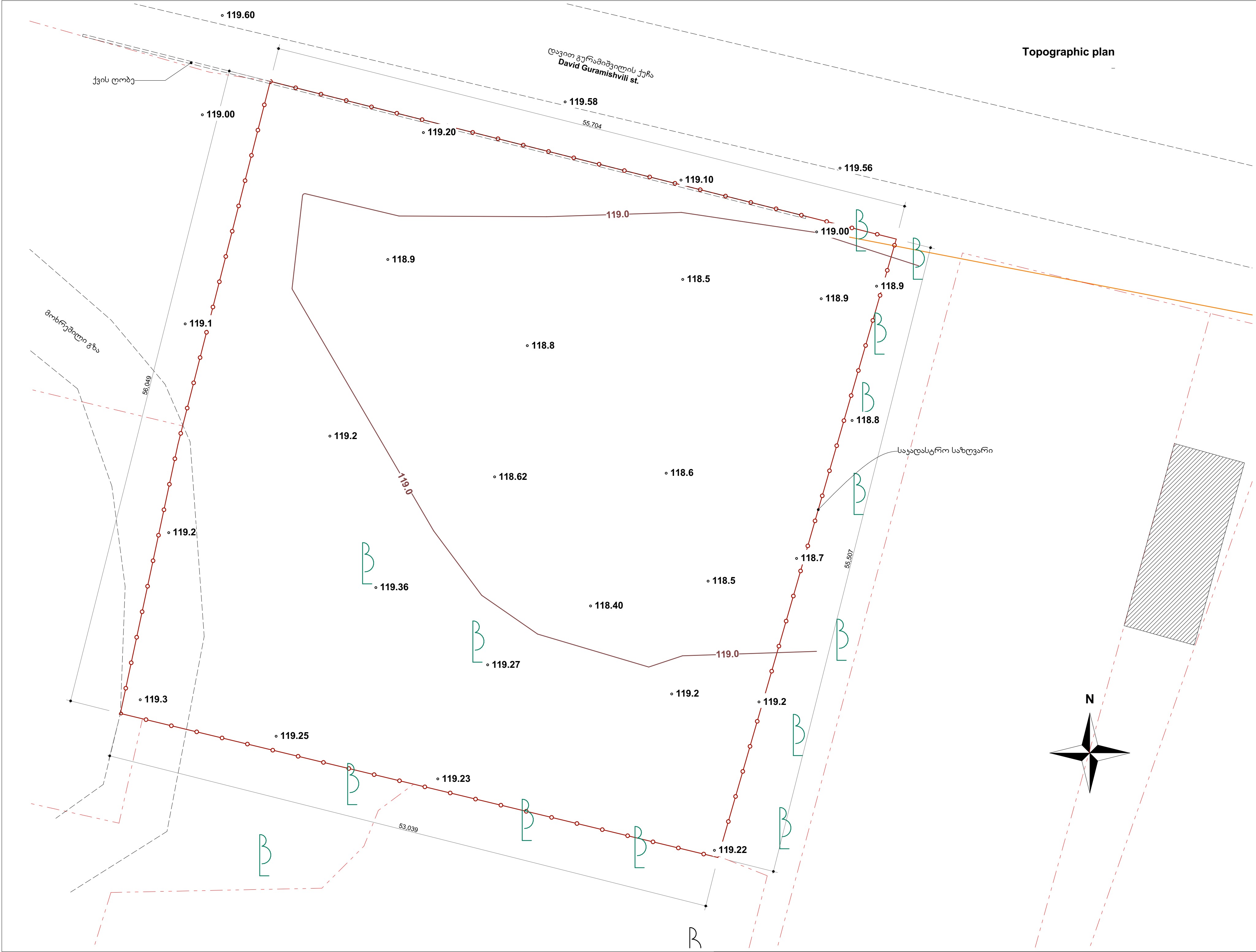
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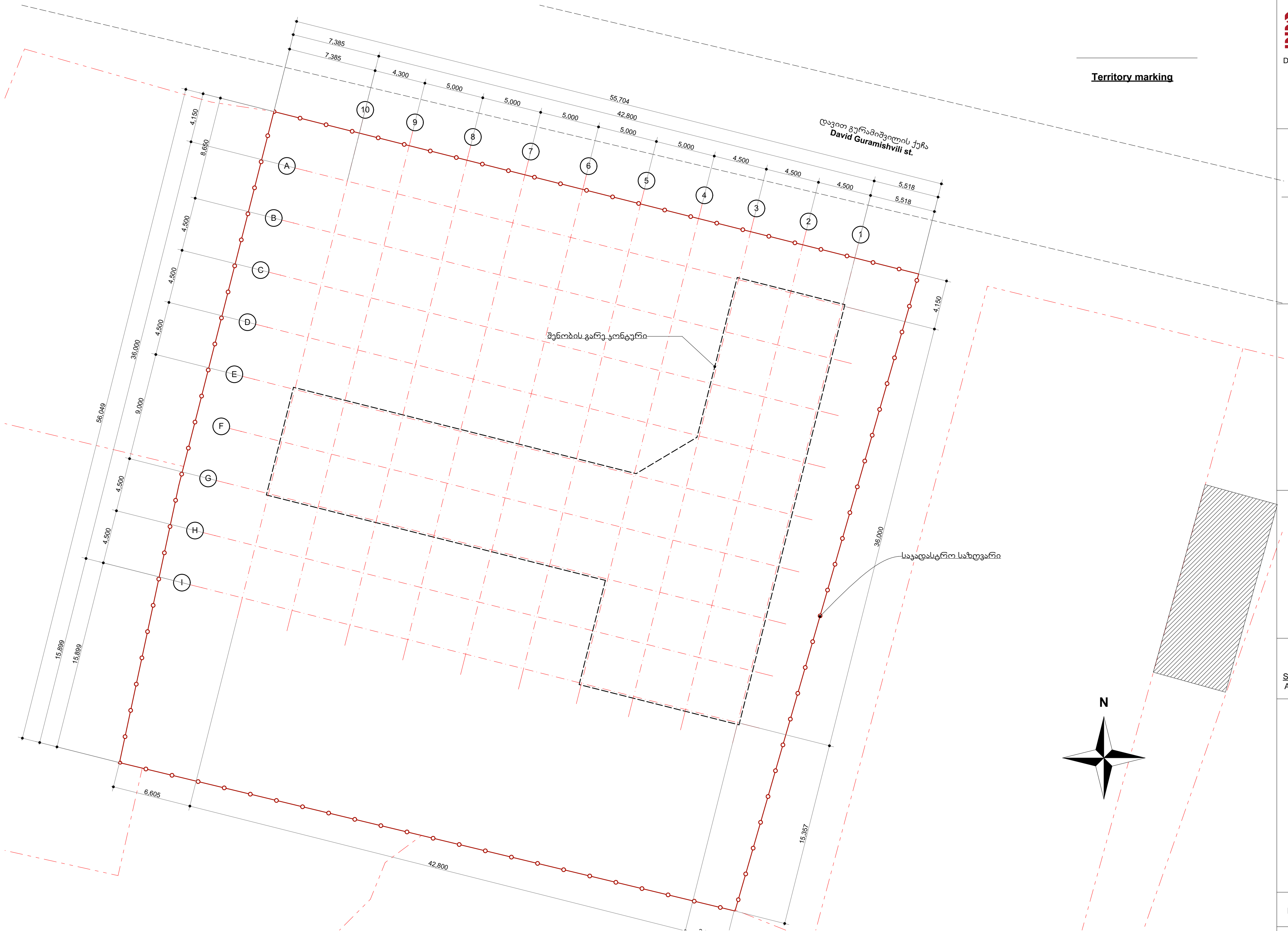
Topographic plan

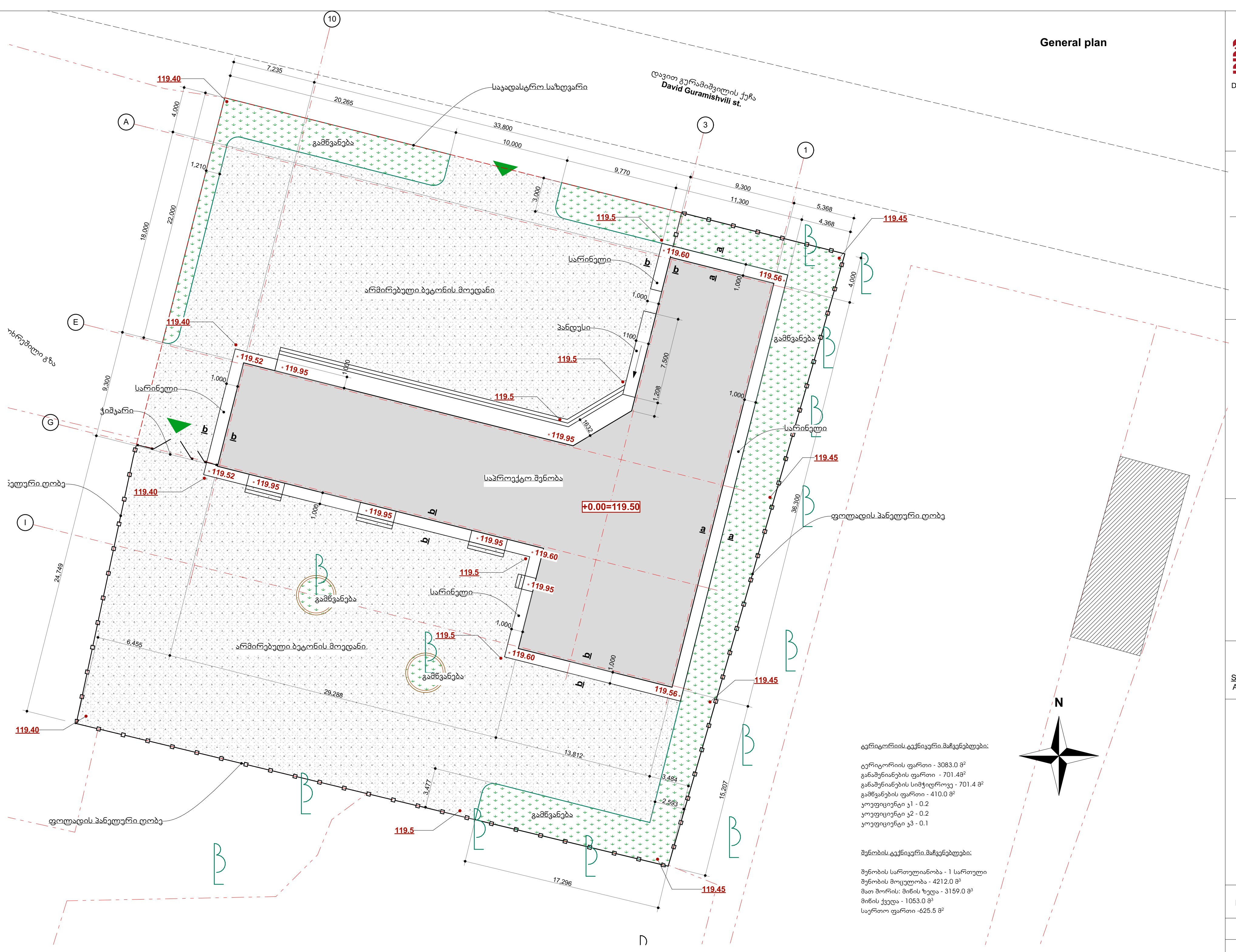
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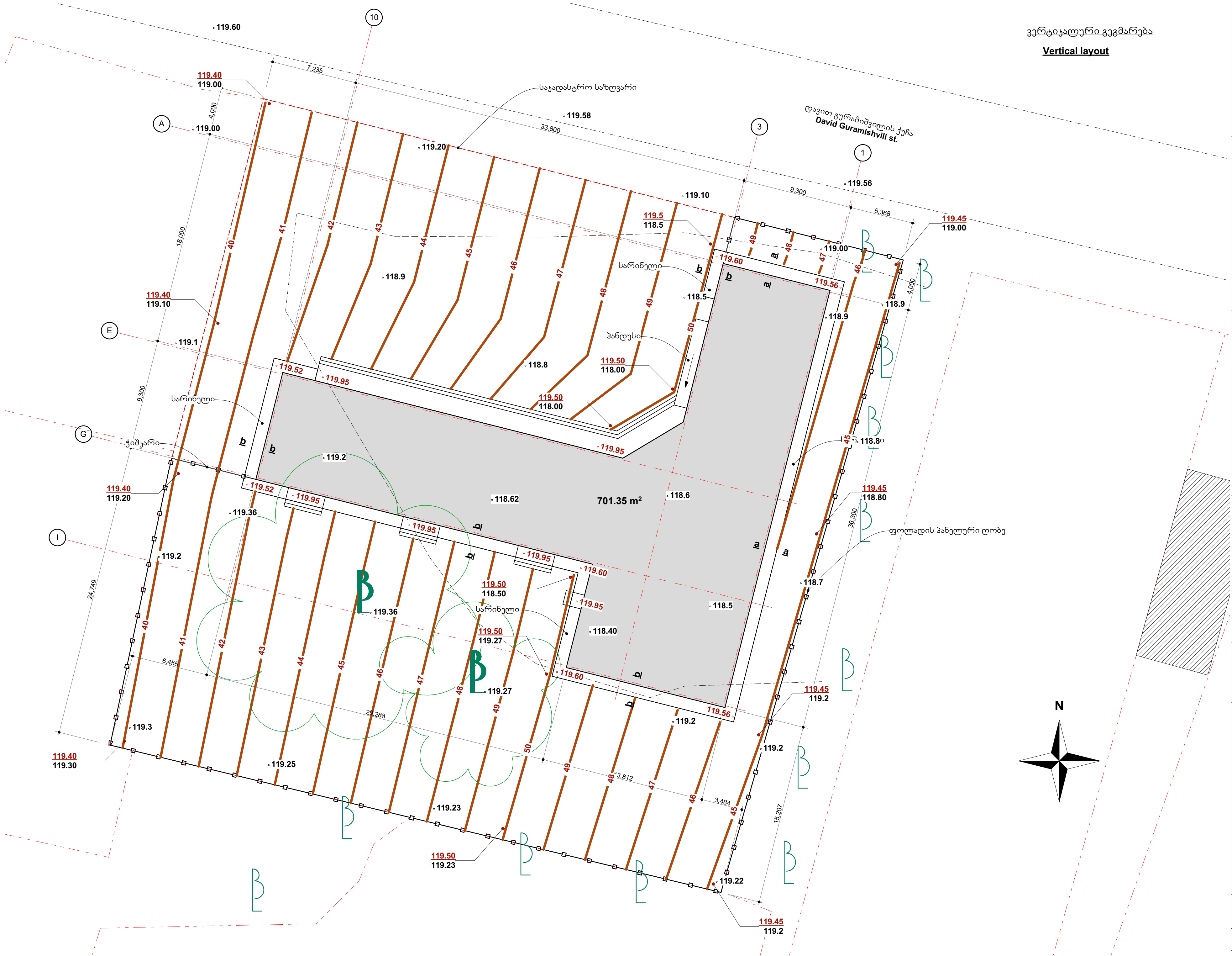
Page	Pages
10	25

Territory
marking

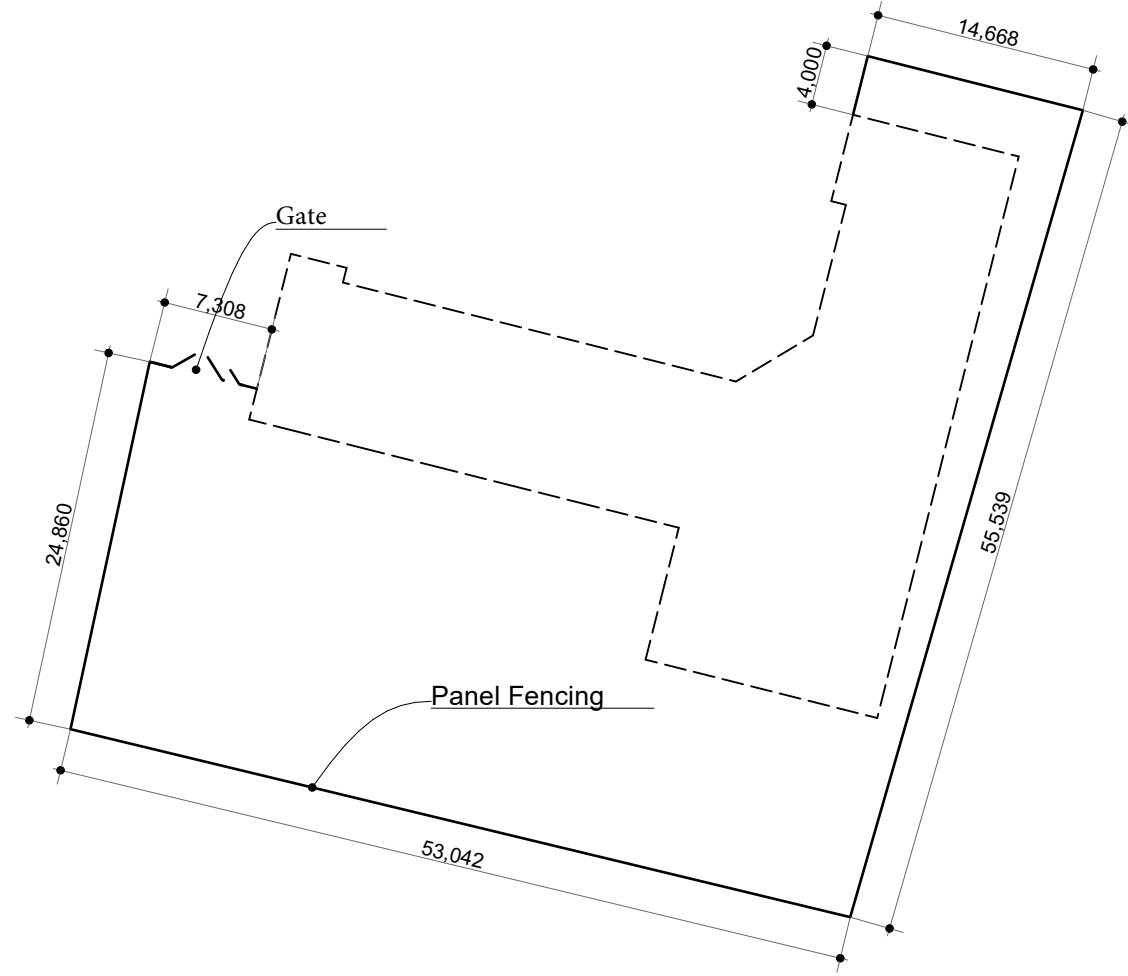
Page	Pages
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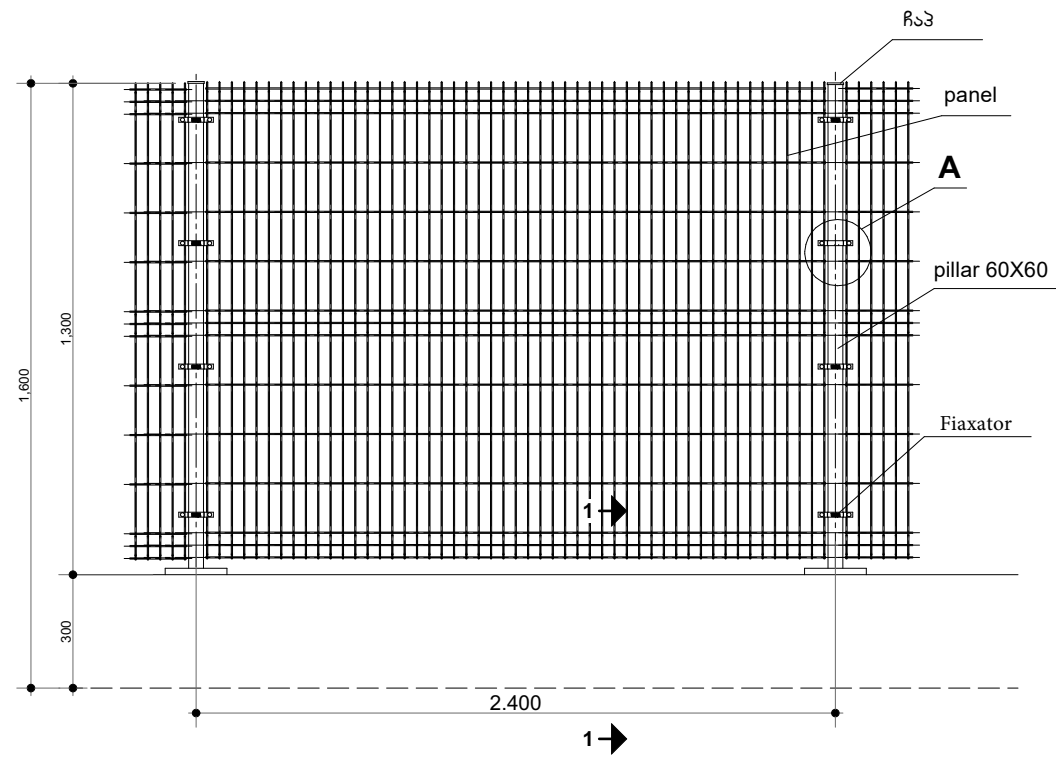




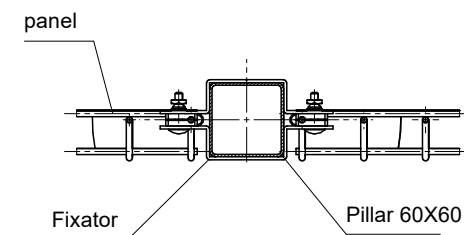
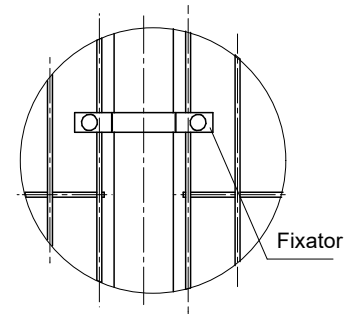
Yard for Panel Fencing



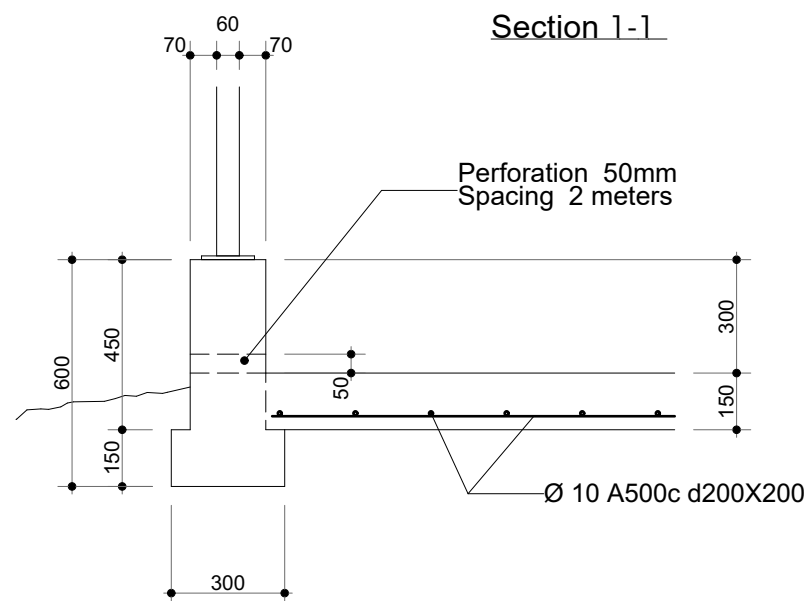
Panel Fencing



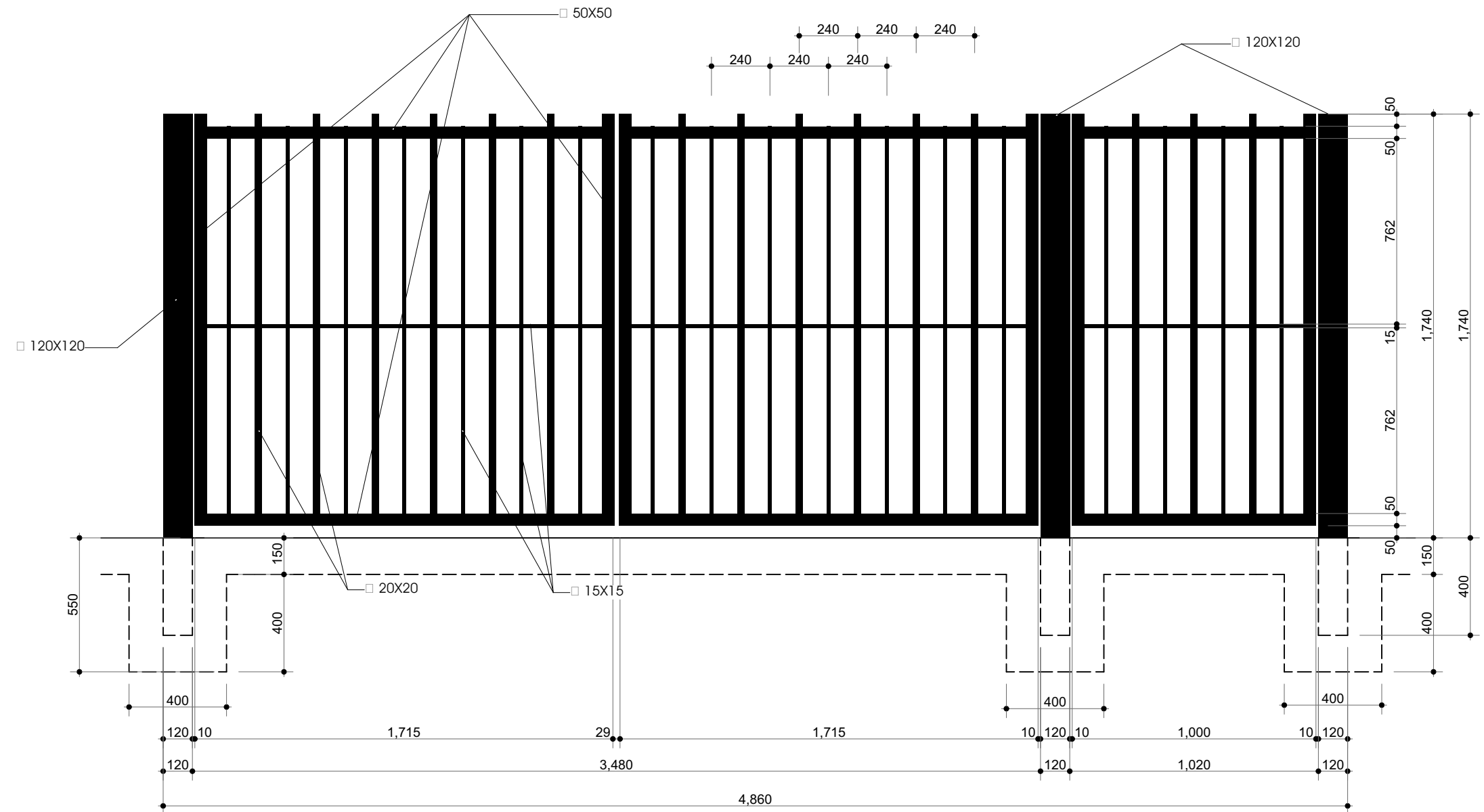
A



Section 1-1

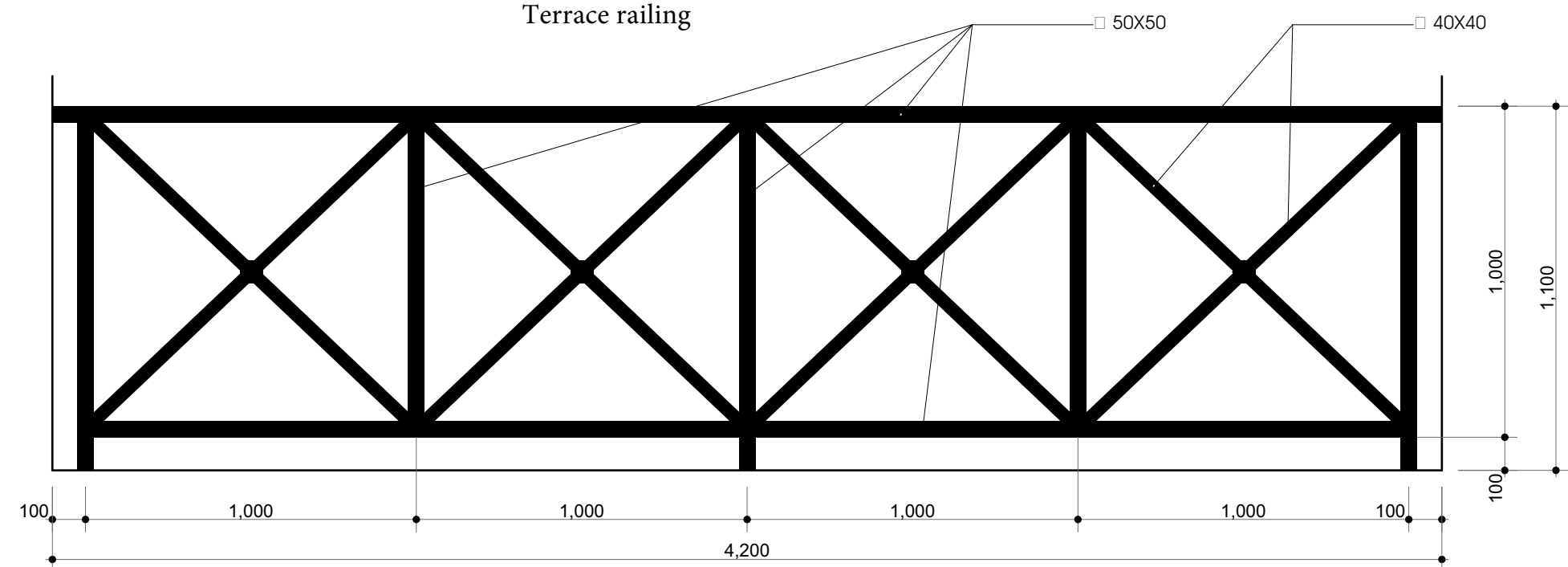


Gate



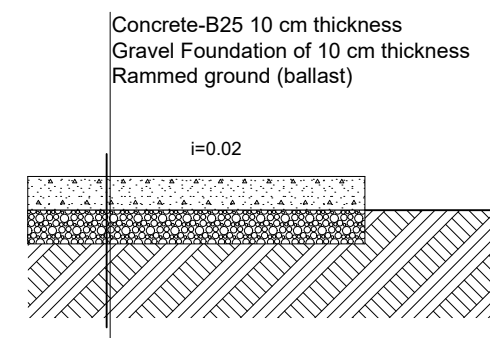
120X120	2140	3 პარკი	6.42 მ
50X50			18.3 მ
20X20	1670	15 პარკი	25.1 მ
15X15	1570	18 პარკი	28.3 მ

Terrace railing

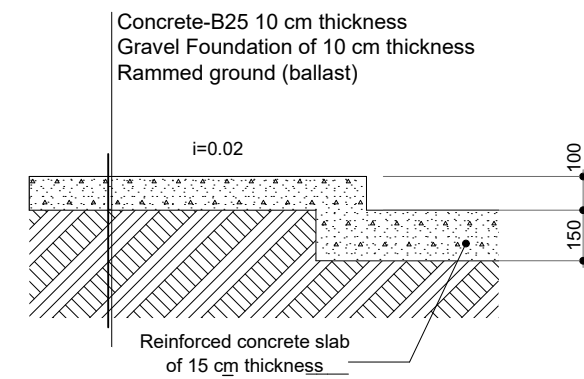


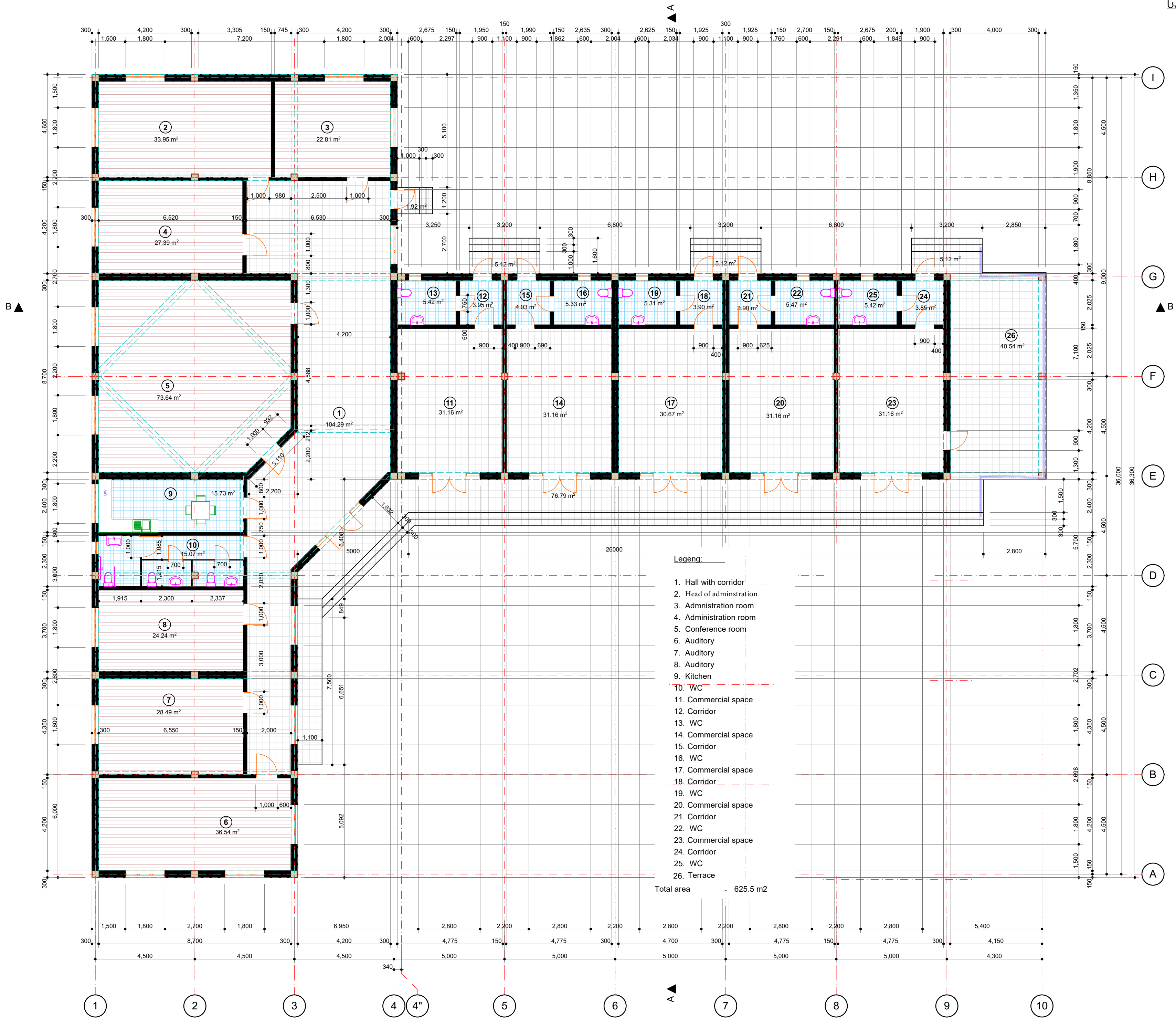
Walkway Structures

Section a-a

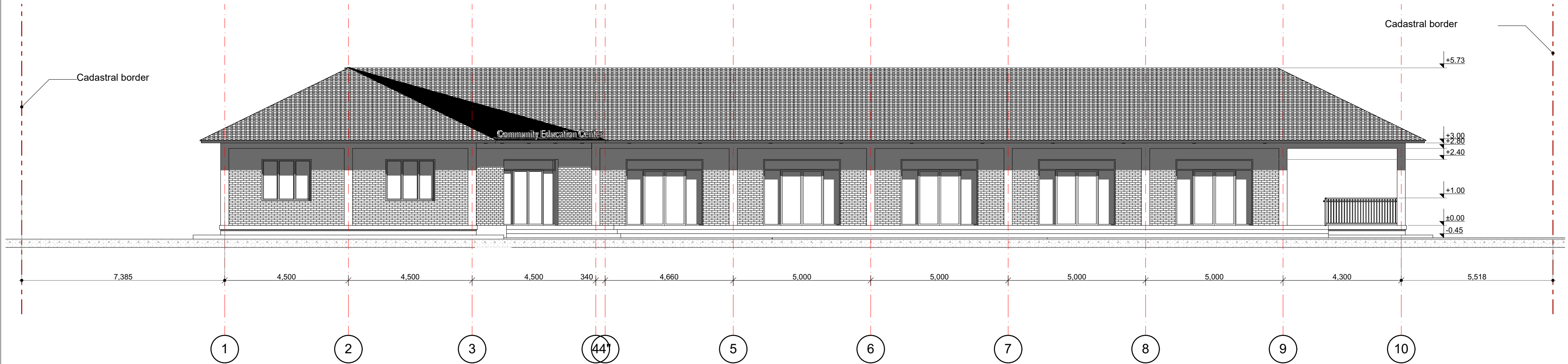


Section b-b

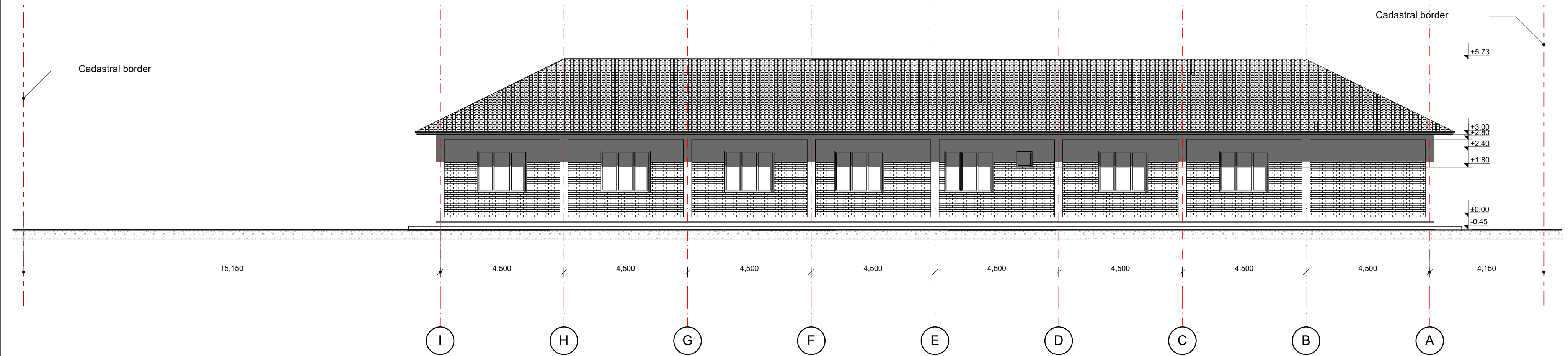




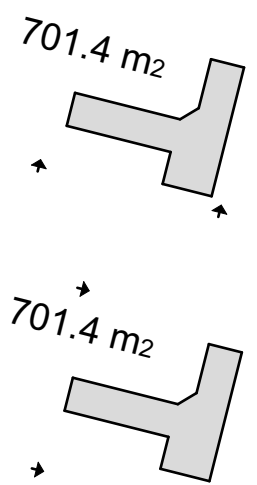
Facade 1-10



Facade I-A



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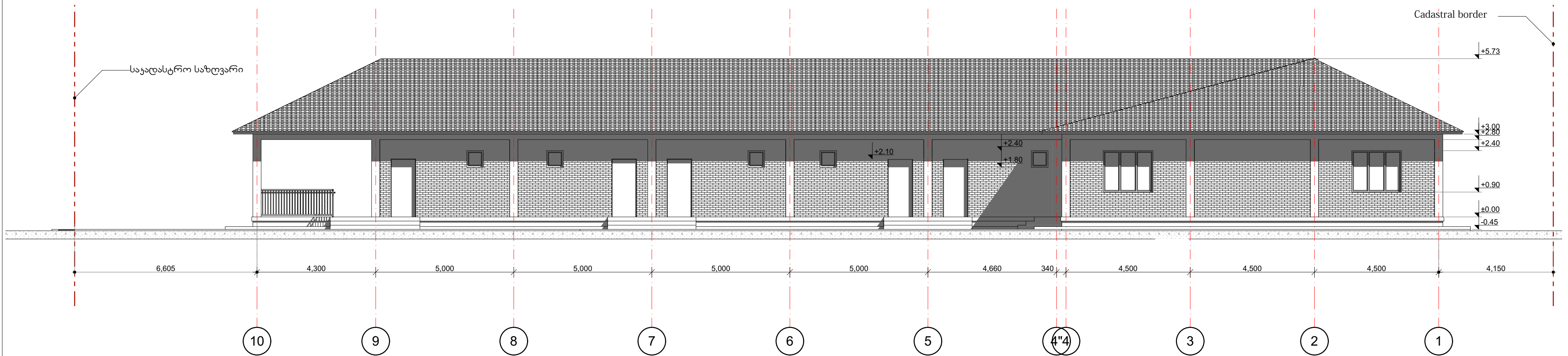
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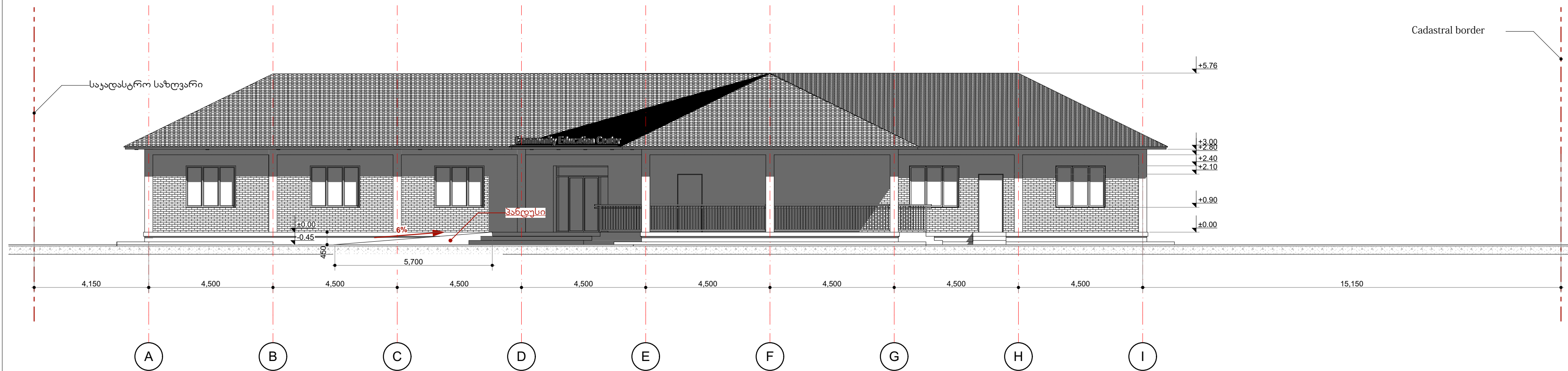
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Facade **10-1**



Facade **A-I**



Textures on the Render

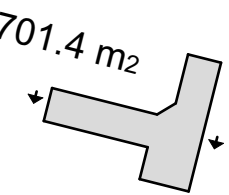
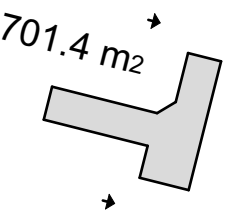


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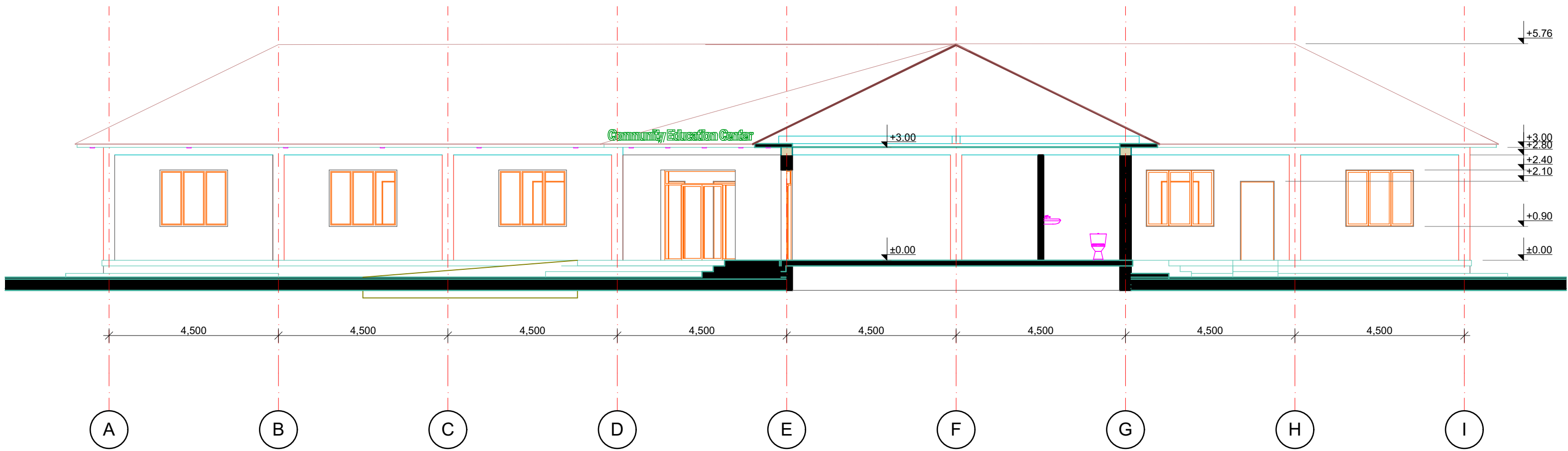


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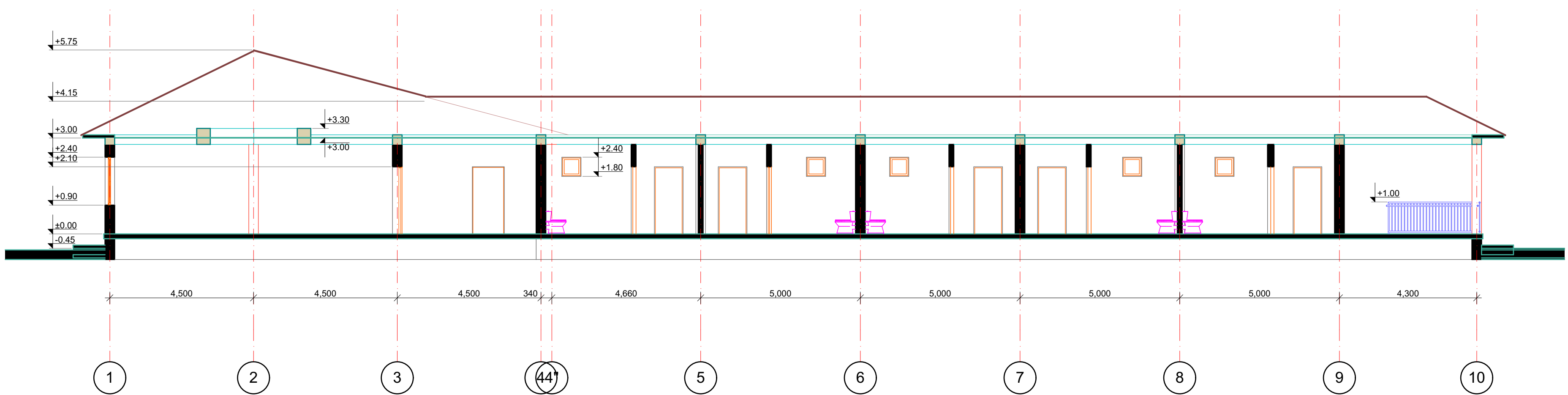
Stage:
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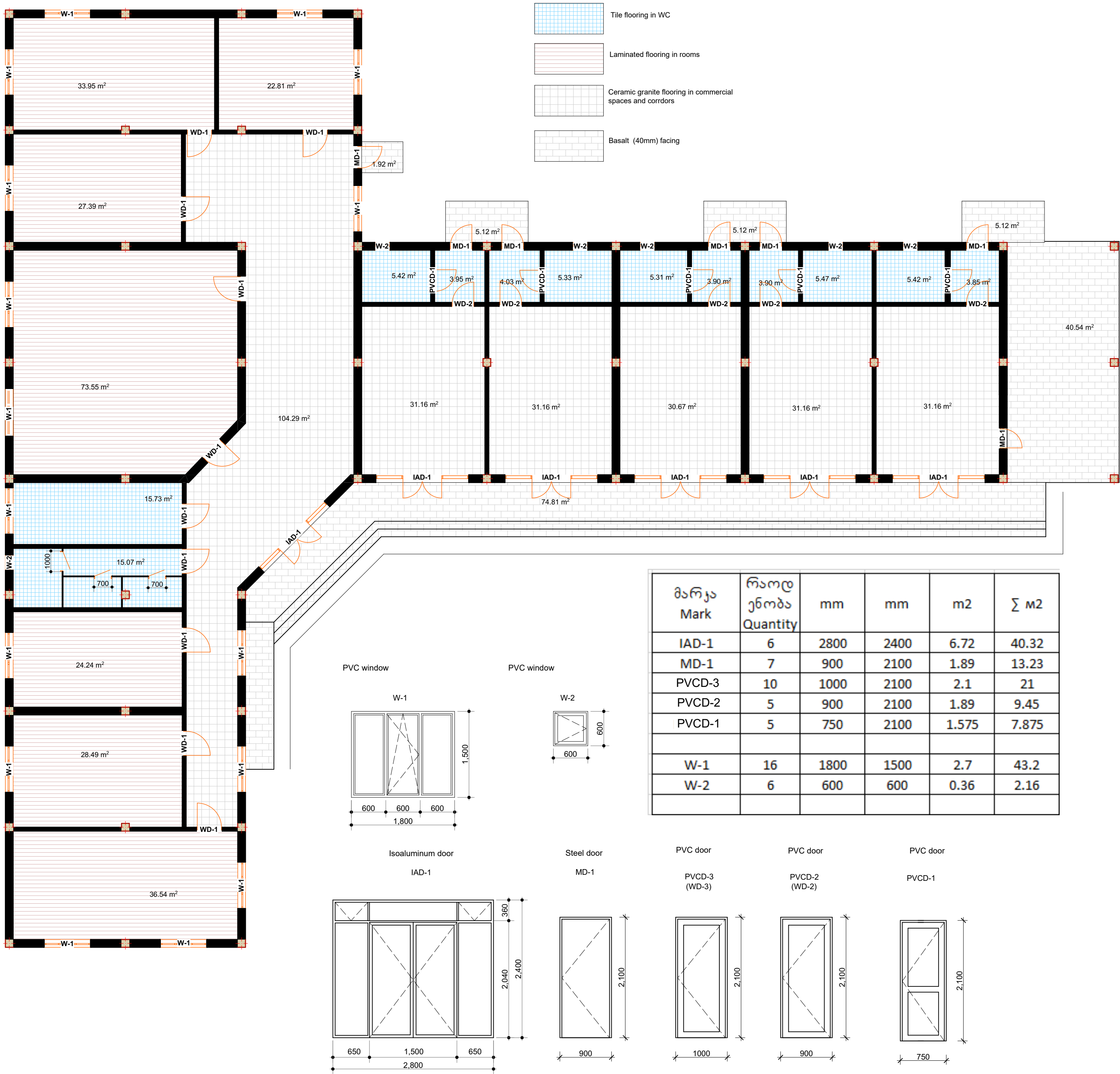
Format A - 2

Section **A-A**

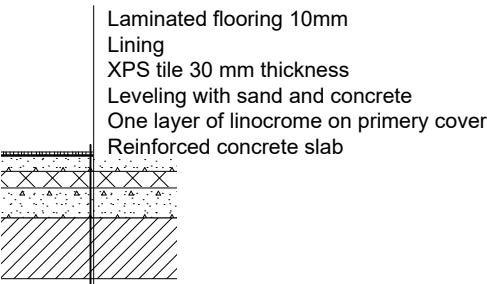


Section **B-B**

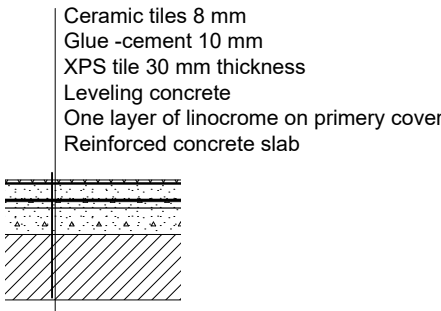




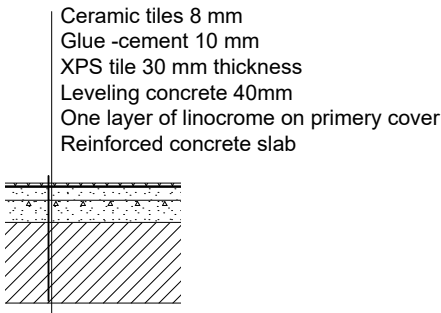
Laminate flooring



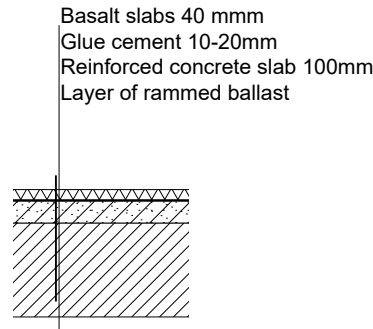
Tile flooring in WCs

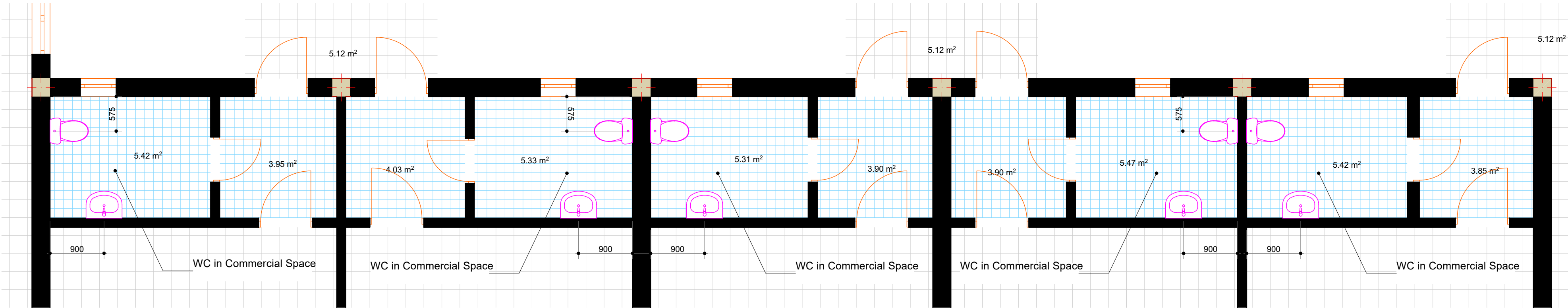


Ceramic granite flooring in commercial spaces and corridors

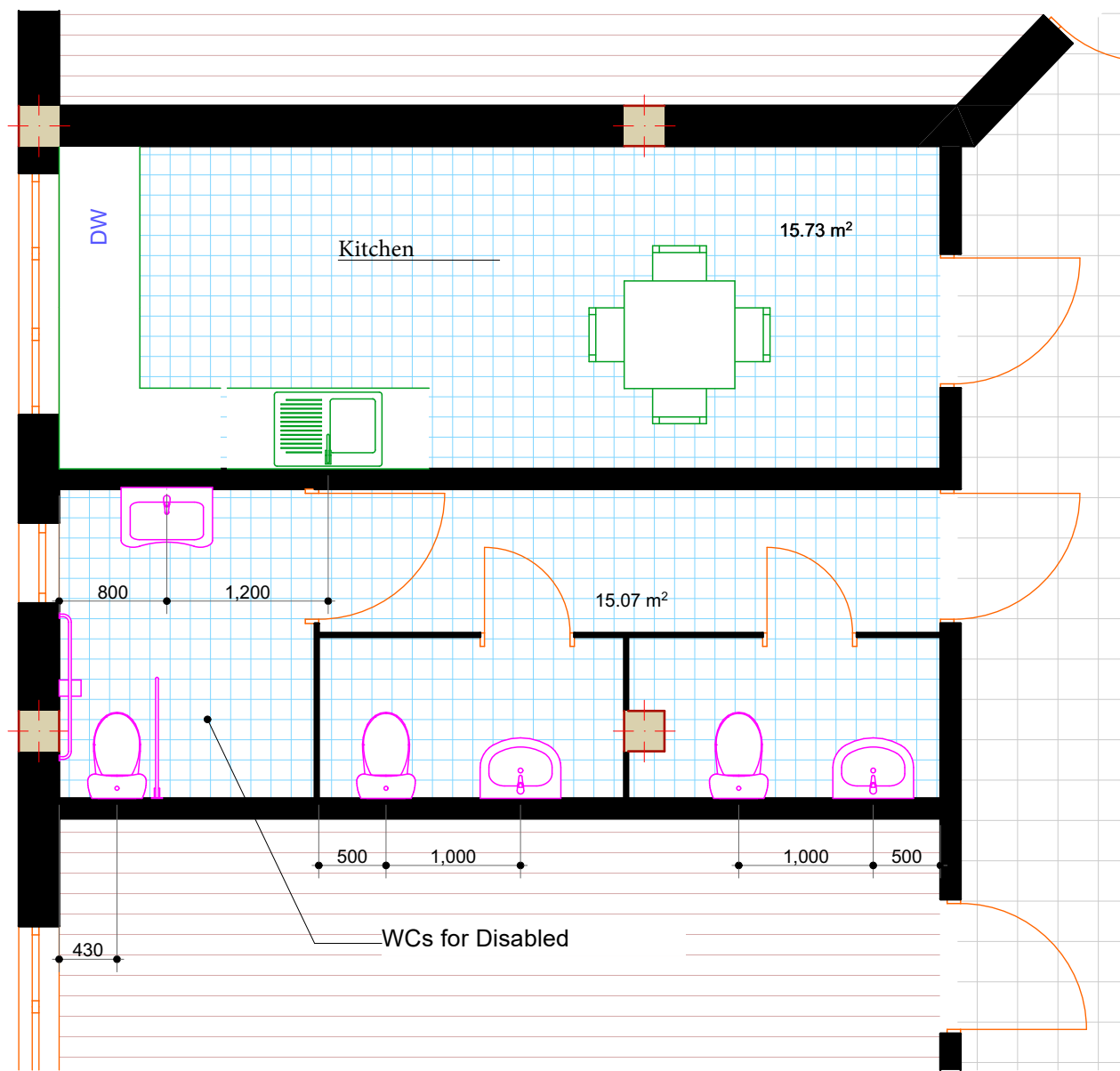


Facing with basalt (40mm)

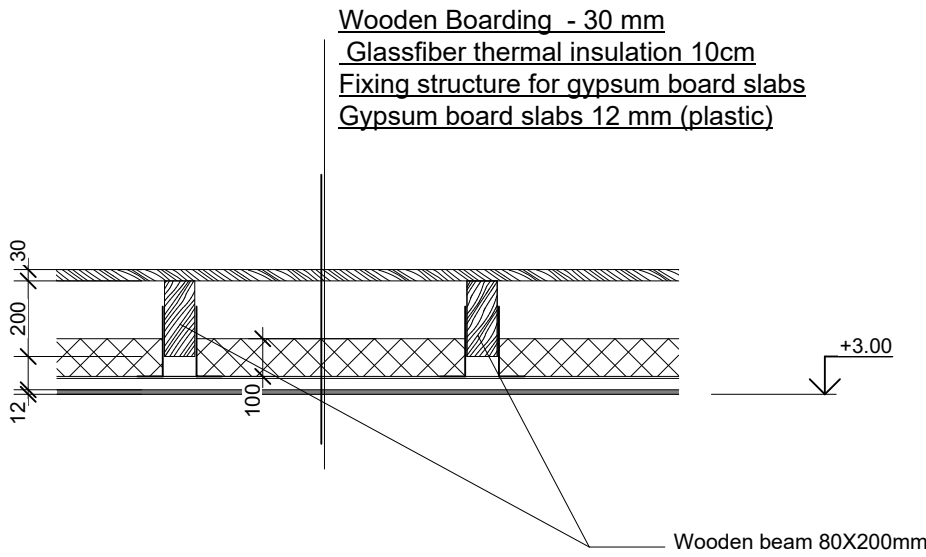




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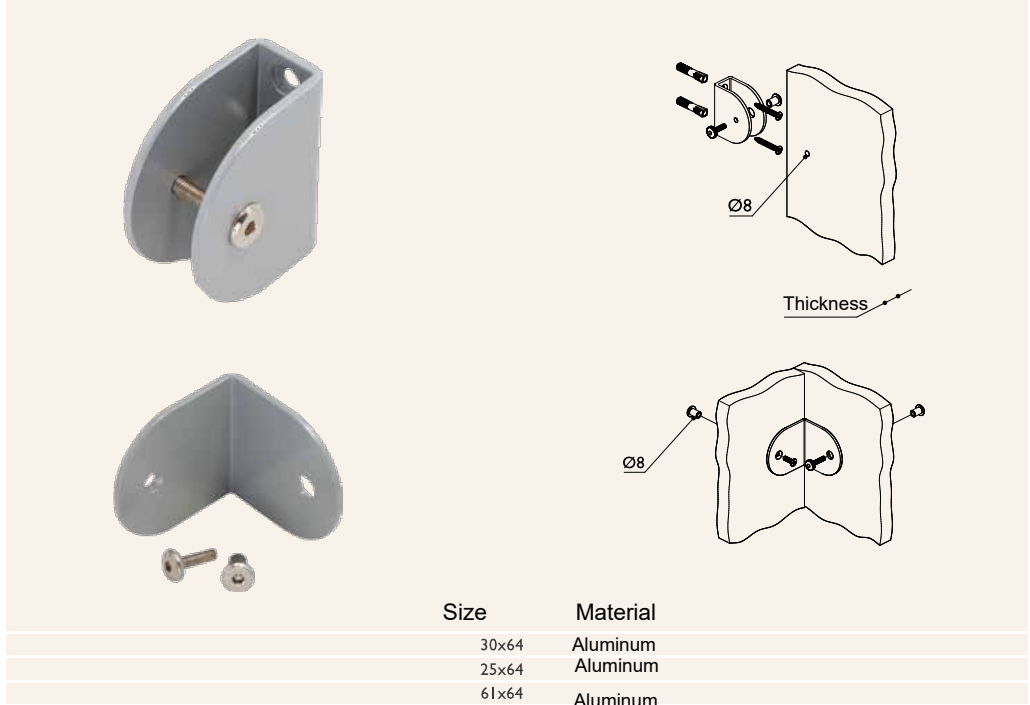
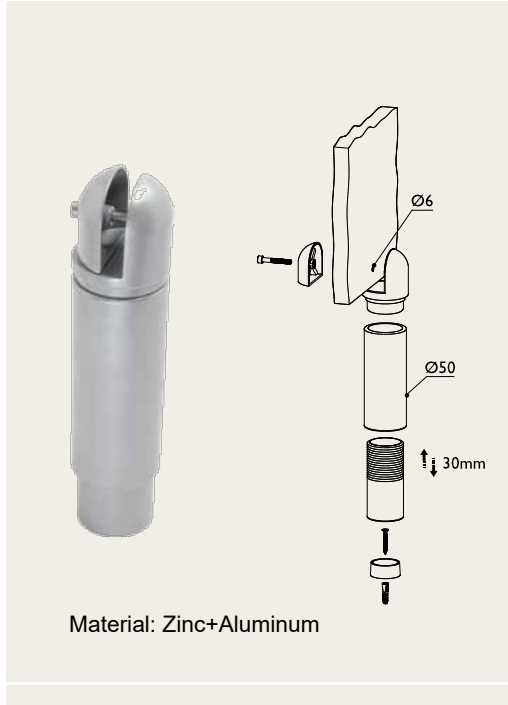
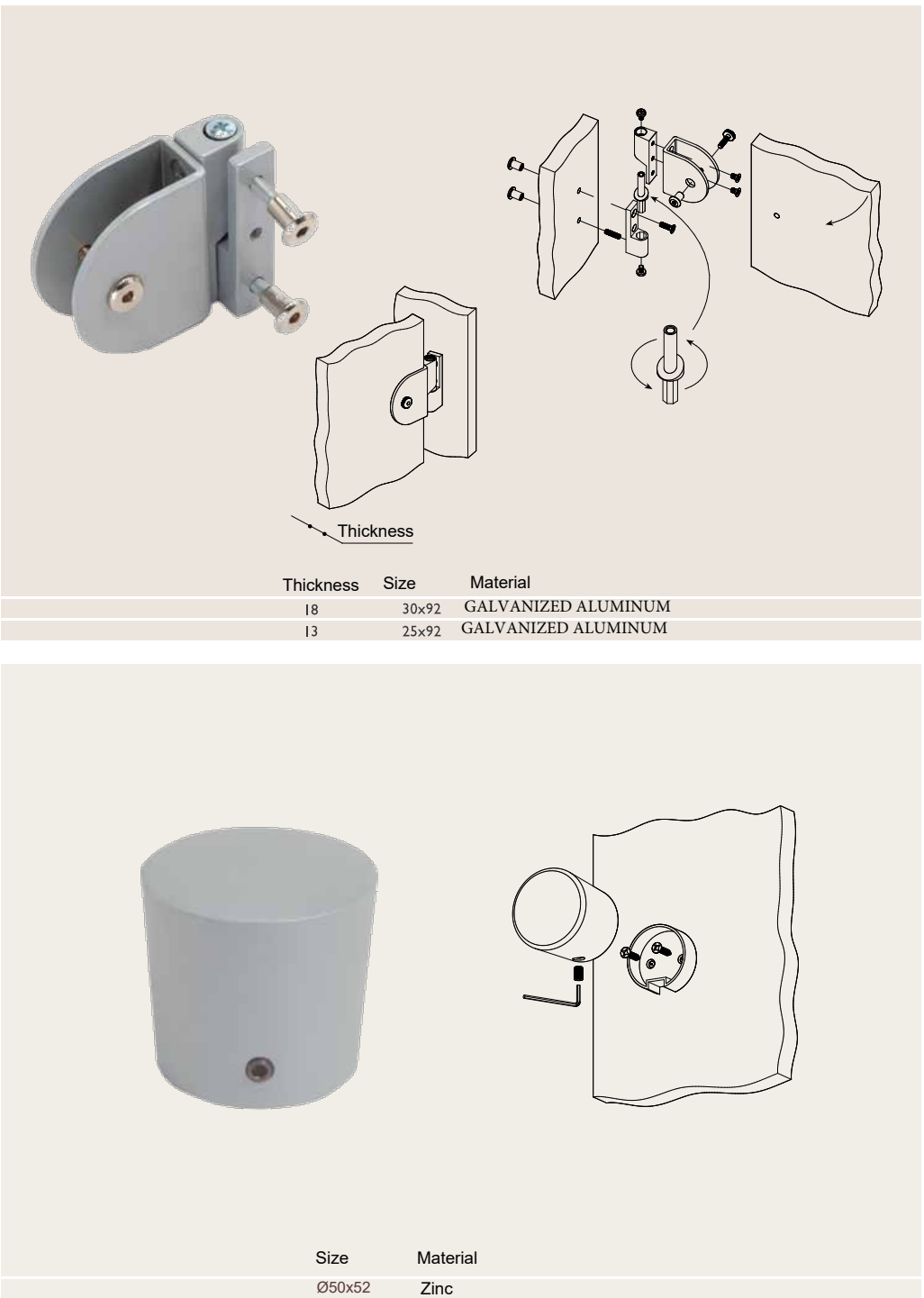
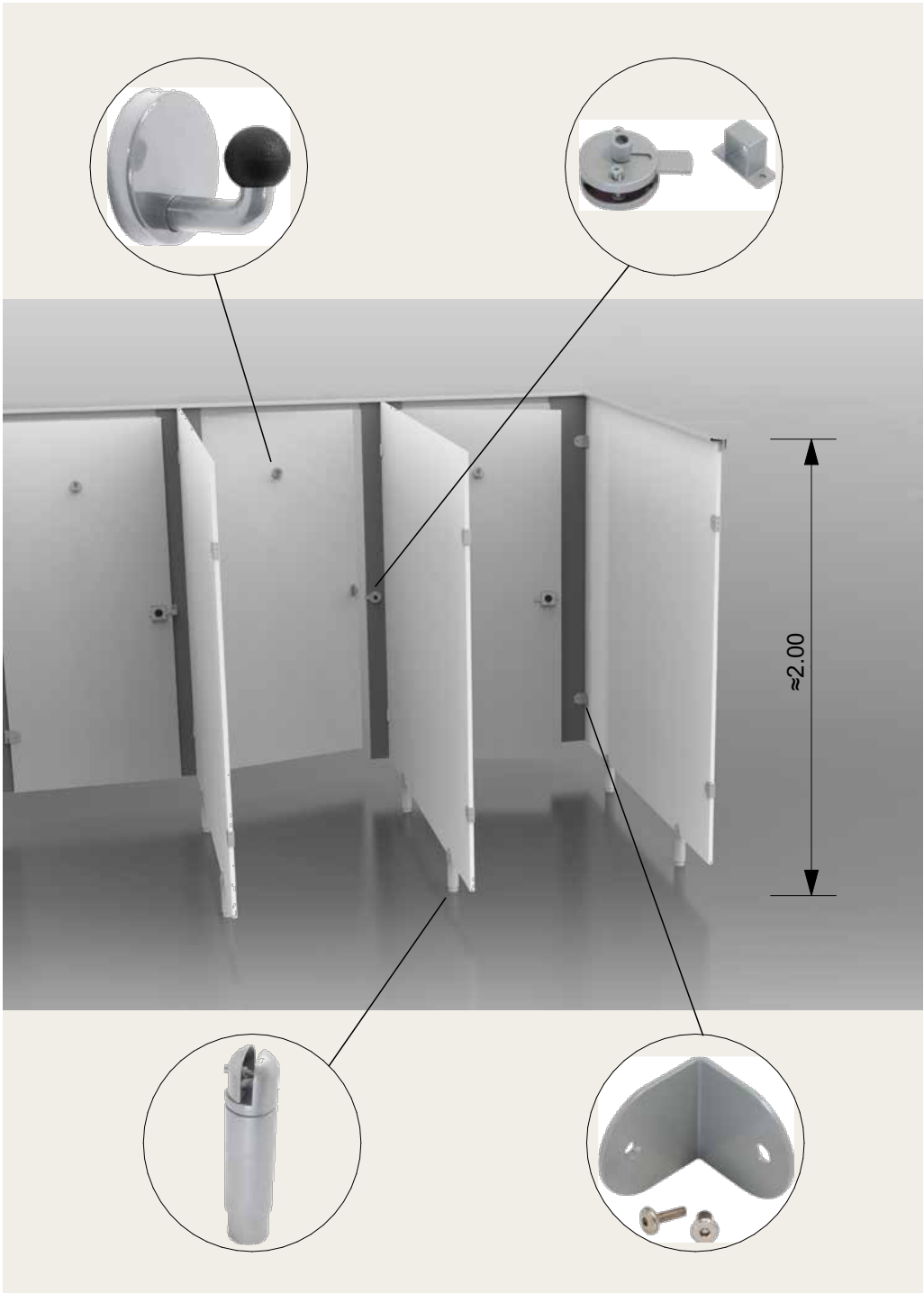
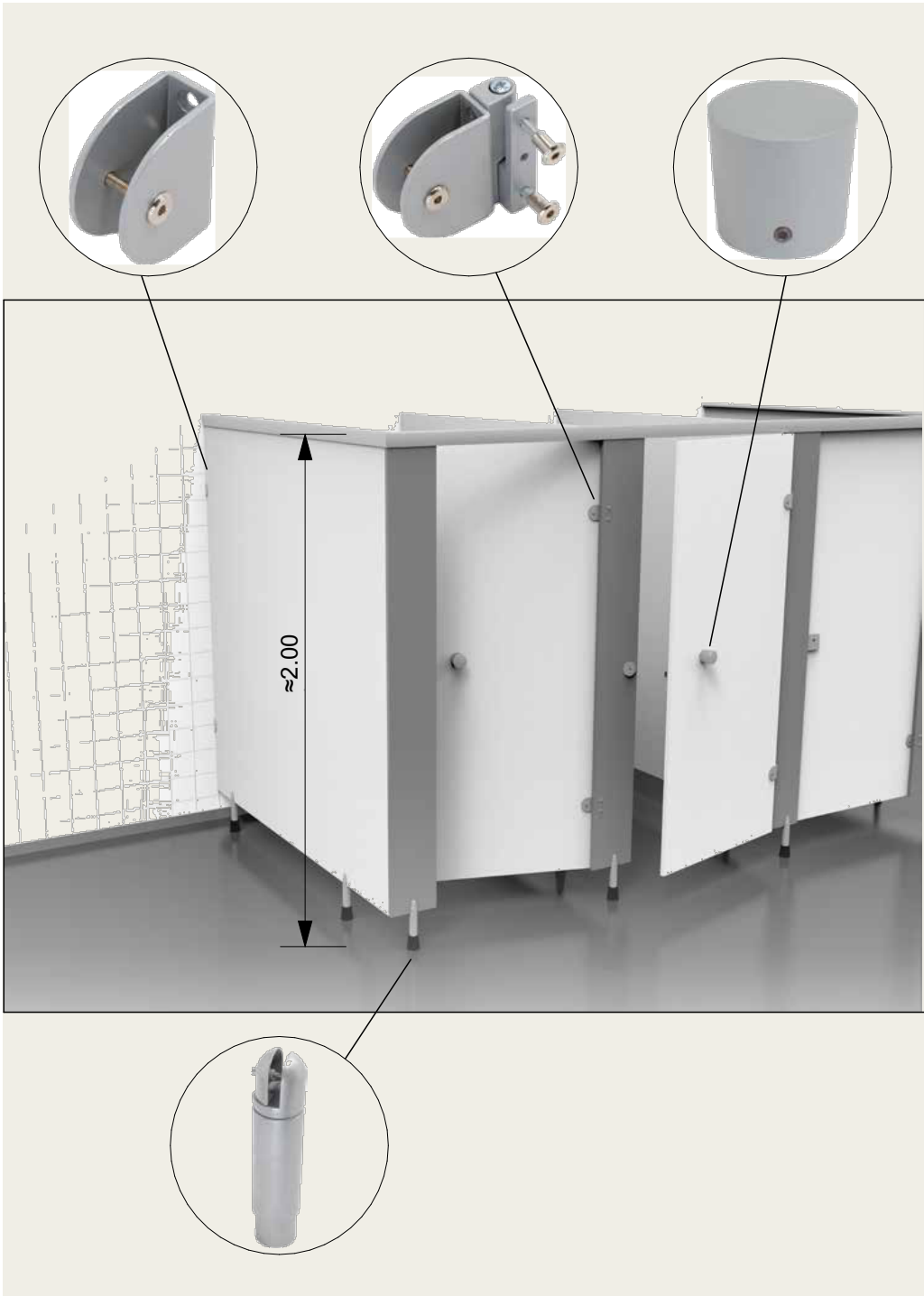
Ceiling Structure

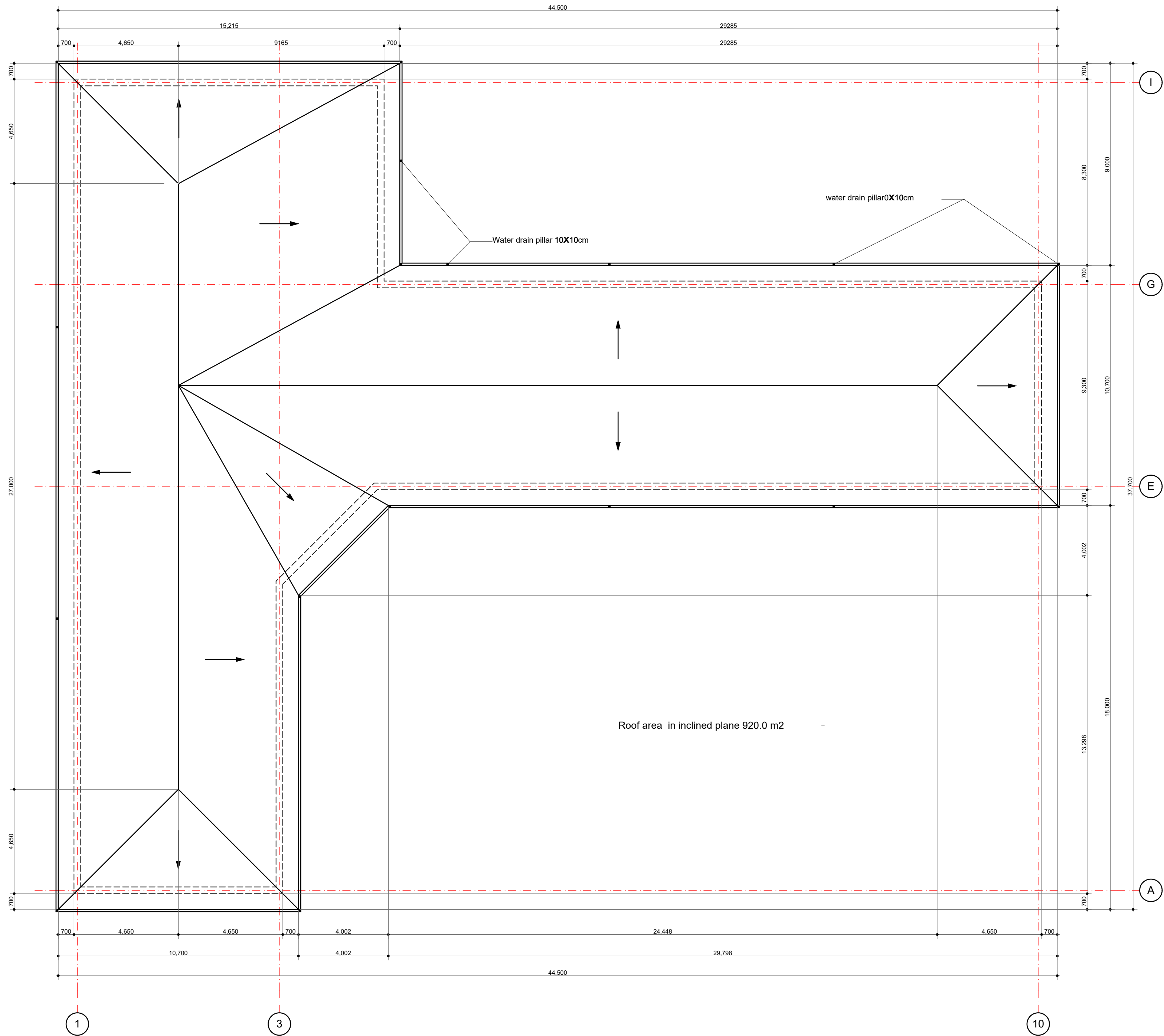


Note:The plastic ceiling is arranged in the
WCs, in the kitchen and on the terrace

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Explanatory Letter

The project for the organization of construction is elaborated in accordance with Resolution # 57 of the Government of Georgia dated March 24, 2009, on the Rule of Issuing of the Construction Permit and the Conditions for Permit and the Construction Rules and Regulations 3.01.01.-85 with regard to "Construction Organization". The basis for the design of the Construction Organization Project was project of construction documents and data of the site and the surrounding area.

Construction is permitted after the permit has been issued by the Khoni Municipality City Hall. Construction should be carried out in compliance with the technological cycles in accordance with the schedule. It is inadmissible to deviate from approved design documentation solutions.

The installation of all temporary electrical equipment and networks in construction should be carried out in accordance with applicable electrical standards and regulations, as well as safety regulations.

Construction conditions and site characterization

Construction is provided in Khoni, the relevant parameters of construction climatology for Khoni are as follows:

- Average annual temperature + 14.3 ° C
- Absolute maximum temperature + 41 ° C
- Absolute minimum temperature - 18 ° C
- Annual precipitation- 1793 mm
- Snow cover weight - 0.5 kPa
- The standard depth of frost penetration - 0 m
- Wind reporting pressure - 0.6 kPa
- The direction of the prevailing wind is - East
- According to the seismic map, Khoni belongs to the seismic magnitude of 8 .

Physical-geological phenomena (landslides, hailstones, etc.) are not observed.

Due to its location in the seismically active zone of the whole territory of Georgia, construction norms and rules - "Earthquake-proof Construction" (PH 01.01.09) apply throughout its territory to the design of residential, public and industrial buildings, as well as new construction, reconstruction, reinforcement, and restoration. Construction norms and rules should be applied along with other documents in the field of construction.

During construction, the construction norms and requirements of regulations approved in Georgia by the order of the Minister of Economic Development of Georgia shall be observed.

The construction site is a rectangular-shaped plot of land bordered from the north by a public zone, namely a street, and adjacent land plots from all the other sides.

There are no any buildings on the territory.

The project envisages the placement of an educational center building on the plot of land with the main facade on the north side towards the street, the main entrance will be arranged on this side. Landscaping and fencing are also provided by the project.

The planning solution of the building envisages the separation of two zones, namely educational and community commercial zones. The educational zone will accommodate the administration of the Community Education Center and educational auditories, and five commercial units in the community's commercial zone.

The building represented in the project is a one-story stone building with an average floor level of 0.45 meters above ground level.

Ground floor level 0.00 corresponds to absolute level 119.95. The floor height of the building is 2.9 meters from floor to ceiling. The walls are made of reinforced double layer, in particular - ceramic.

Perforated brick external layer (12 cm) and small pumice block internal layer (15 cm).

The main structure of the building is a composite reinforced concrete walls with inserts (cores, belts), reinforced concrete pillars, monolithic reinforced concrete belts and cornices, which incorporates exterior and interior bearing reinforced walls.

Reinforced concrete inserts are concreted in parallel with the masonry of reinforced bearing walls. The partitions are made of reinforced small pumice blocks.

Floors in the bathrooms are tiled and there is laminate flooring in the rooms. Floor warming is made of XPS tiles, and ceiling warming with glass-wool. On the ceiling the so-called rough timber flooring is arranged at the attic level.

The suspended ceiling of the bathroom is made of plastic boards, and it is made of gypsum boards in the rooms. The bearing structure of the roof is wooden, and the roofing is made of painted metal tiles. The windows are made of double-glazed metal profiles.

The entrance doors are made of steel and iso-aluminum, PVC in the bathroom, and wood (so-called MDF) in the rooms.

The external staircases and staircase landings will be finished with granite slabs.

A concrete walkway iwill be arranged around the building.

The internal networks of electricity supply, sewage and water supply, will be installed in the building and will be connected to the external main networks.

Technical characteristics of the territory

Territory area - 3083.0 m2
Development area - 701.4 m2
Developmet density - 701.4 m2
Planting area - 410.0 m2
Coefficient k 1 - 0.2
Coefficient k 2 - 0.2
Coefficient k 3 - 0.1

Technical characteristics of the territory

Number of storeys of the building
Volume of the building - 4212.0 m3
Including: above ground - 3159.0 m3
Under ground - 1053.0 m3
Total area -625.5 m2

Prior to the start of construction, the construction site shall be surrounded by a temporary fence within the cadastral boundary. The vertical plan of the area for the transferring of the surface water to the street involves the arrangement of an embankment in the yard, for which a concrete boundary wall is provided, where will be installed a metal panel fence.

Ready-mixed concrete should be supplied by a concrete pump that can be installed inside the yard in the northwestern part of the area.

According to the Resolution # 57 of the Government of Georgia dated March 24, 2009, the building belongs to the third category, taking into account the characteristics of the categories of buildings.

Construction Terms and Stages

The duration of the construction shall be determined in accordance with the purpose, the number of storeys and the materials used in the building, taking into account Construction Rules 1.04.03-85. The seismic coefficient for civil buildings in high seismic areas of 8-9 is assumed K = 1.15.

The terms of construction were determined based on actual material-technical conditions and capabilities.

The duration of construction is 12 months, including 1 month for preparatory works.

The preparatory work consists of two stages:

1. Preparatory work, which involves the disposal of rubbish and solid waste from the site, the installation of ballast embankment, its ramming and the fencing of the construction site after that.
2. Construction of the building and removal of key axles.

Preparatory work includes both organizational activities and outdoor and indoor construction work.

The sequence of construction works is:

- 1) Land and building foundation works.
- 2) Arrangement of the building's foundation and basic construction system at zero level.
- 3) Installation of the main solid and non-solid structures of the floor of the building.
- 4) Roof installation.
- 5) Installation of doors and windows.
- 6) Exterior finishing of the building.
- 7) Interior finishing of the building (in parallel, installation of electrical and other engineering networks, in particular water supply, sewage system, heating system).
- 8) Landscaping works.

Organizing the construction site and building safety rules

Prior to the main construction works, the construction site and the surrounding area should be arranged. Construction site boundaries should usually fall within the cadastral boundaries of the land. After the ballast is laid, the construction site is fenced off and temporary buildings are laid out. Prior to the excavation works, the axes of the building shall be mapped and removed from the perimeter of the building.

An information banner should be placed on the construction site. Work on the construction site shall be organized to ensure construction safety in accordance with Government Regulation # 6228.03.07, as well as 'Construction Safety Rules' and Construction Rules and Regulations III-4-80. Construction safety rules apply under the permit for construction works to be performed on the site, and defines the security requirements of the construction site: while organizing, construction machinery, technical equipment, and tools in operation, power and air welding, loading-unloading, insulation, the land works, the construction of foundations, roofing works, underground works, concrete and reinforced concrete, and other construction works. All firefighting measures shall comply with fire safety norms during the construction - installation works in accordance with Construction Rules 2.01.02-91.

Entrance to the construction site should be controlled and the possibility of unnecessary access of strangers should be excluded. The enclosure in the traffic zone should be covered with protective cover to ensure the safety of pedestrians. During darkness, the fencing should be equipped with signaling lamps or use materials or colors perceived in the dark. In the same manner, the area of dismantling must be fenced. A responsible person for adhering to safety rules should be assigned to the construction site. Workers and engineers must wear helmets, and the special works must be performed using appropriate equipment. There should be provided the first aid facilities on the construction site. Materials, structures and other equipment should be stored and disposed of in accordance with the norms to exclude there fall, slide, and expansion.

Dusty materials should be stored in storage areas. During loading and unloading operations precautions shall be taken to prevent their scattering and dispersal. Harmful or explosive solvents must be stored in a tightly closed container. Temporary structures are to be provided on the south side of the building to ensure proper working and hygienic conditions and proper organization of labor prior to the start of site improvement works.

List of Covered Works Acts

Upon completion of the major construction work, a covert construction act must be completed by the construction developer prior to the next work that will result in its coverage, following an on-site examination. List of the main construction and installation works, which should be followed by an act of covert work:

- Marking off the building axes.
- Getting a tranche arranged for foundations
- Arrangement of reinforced concrete foundation.
- Arrangement of reinforced concrete inserts and walls
- Examining the waterproofing of foundation, basement walls, and roofing.
- Connect to wall columns.
- Obtaining landscaping work

Environment and Ecology

In the process of production on the construction site it is necessary to take measures for the protection of nature and air pollution in accordance with the existing legislative acts. It is forbidden to cut perennial trees and plants in the construction zone without the permission of the Environment Protection Agency. It is inadmissible to wash concrete or cement solution pipes in existing sewage wells or to dump them with construction waste. It is forbidden to dump waste and construction trash without closed grooves and bunkers. If construction or reconstruction is expected to spread dust, the building should be covered with a special curtain or work should be carried out indoors. When transporting friable construction garbage, the surface must be or sprinkled with protective coating after loading it into the vehicle body. Before leaving the construction site, tires need to be cleaned to prevent contamination of town streets.

Equipment and Tools

Name of the equipment	Works to be done
Excavator with capacity of 0,2m3	Earth works
Road ramming machine	Yard development
Skylift	Various works
Self-dumping truck	Transportation of ground, delivery of materials
Lorry	Delivery of materials
Truck trailer	Transportation of reinforcement and other big sized materials
Mobile compressor	Providing air
External vibrator	Concrete works
Pervibrator	Concrete works
Welding aggregate	Welding works
Concrete mixer	Preparation of mortar
concrete mixer truck with conveyer	Concrete works
Multifunction Pneumatic Tool	Construction and other special works

Note: It is possible to use the same or advanced equipment based on existing technical database

Community
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in Khoni

Project address:

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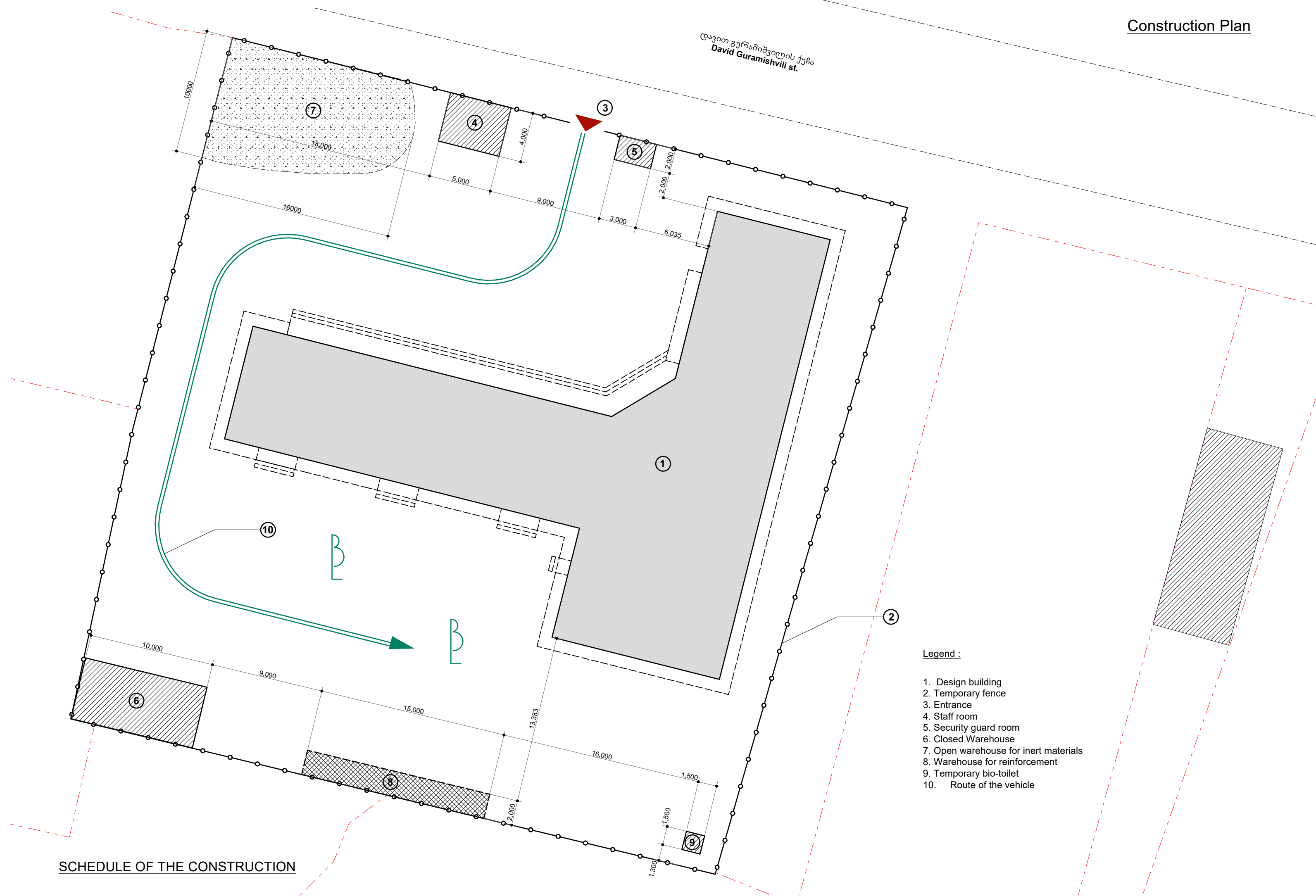
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Stage:
Architectural project

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Construction Plan



SCHEDULE OF THE CONSTRUCTION

1. Preparatory works
2. Arrangement of ballast embankment on the territory
3. Foundation works
4. Basement works
5. Concreting of floors
6. Construction of walls and columns
7. Concreting of reinforced concrete eaves and girds
8. Roofing
9. Installation of windows and doors
10. Wall plastering
11. Facing works
12. Electrical works
13. Sanitary-engineering works
14. Yard development works
15. Cleaning of the territory

