

Architechtural Project Typical Kindergarten Akhalgazrdoba str., 5 Kareli town



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Current status - The construction site is a rectangular plot of land bordered on the north and east by a public area, namely streets, and adjacent plots of land on all other sides.

The building pre meters from the The ground floo The height of th The filling of the The bearing stru concrete colum concreted in pa The partitions a The floors in the tiles, while ceilir The suspended board. The bear The windows ar The entrance do called MDF). Ex The building is connected to ex According to the the building belo

### Technical spec

Area - 2507.0 m2 Development are Density of develo Planting area - 1 Coefficient K1 -Coefficient K2 -Coefficient K3 -

Technical specifi

Number of the flo Volume of the bu Among them: Surface - 2860 m Underground - 86 Total area - 415.

#### EXPLANATORY LETTER

🗘 DANISH REFUGEE

Typical

Kindergarten

#5, Akhalgazrdoba

street, Kareli

k-1 Sketch

28

2

#### GENERAL INFORMATION

The construction site (cadastral code of the land plot 68.10.49.512) is located in the town of Kareli, according to the norms - "Construction Climatology" the climatic characteristics of the construction site are: - The average temperature of the year is + 10.7  $^{\circ}$  C - Absolute maximum temperature + 40 ° C - Absolute minimum temperature - 26 ° C - Annual precipitation -630 mm - Weight of snow cover - 0.5 kPa - Normal height of seasonal ground freezing - 0 m - Normal wind pressure 0.3 kPa -The prevailing wind direction is - East - According to the map of seismic zones, Kareli belongs to - 8 magnitude seismic zone. From an engineering geological point of view, the area allocated for construction is in satisfactory condition, physical-geological events (landslides, collapses, etc.) are not observed.

#### <u>PLANNING</u>

BUILDING	
esented in the project is a one-storey stone building, the floor level of which is raised by an average of 1.0 e ground (including the sarin). or mark 0.00 corresponds to the absolute mark 650.40.	682.23 m2
e floor of the building from floor to ceiling is 3.4 meters.	
e outer walls is done with a reinforced masonry of small wall pumice blocks with a thickness 30 cm.	
ucture of the building is a complex reinforced concrete frame, a frame structure consisting of reinforced ns, monolithic reinforced concrete slabs. Reinforced concrete columns on the exterior walls can be	
rallel with the consruction of the walls.	
re made of reinforced small wall pumice block with a thickness of 10 cm.	
e bathrooms are tiled, while the rooms have laminate flooring (deck). Floor warming is completed with XPS	Project address:
ng warming is done with glass wool.	Georgia,
l ceilings of the toilets and the kitchen are made of plastic, while in the rooms they are made of gypsum ring structure of the roof is made of wood, while the roof is made of painted metal tile.	Kareli
re made of PVC with double glazing.	
oors are made of steel and iso-aluminum, PVC in the sanitary units, and in the rooms from wood (so-	
xternal stairs and platforms are paved with basalt tiles.	Stage:
provided with electricity, sewerage, and water supply, as well as internal heating networks, which will be	Architectural project
xternal main district networks.	
e decree of the Government of Georgia, taking into account the characteristics of the grades of buildings,	
ongs to the 3rd grade.	
	Explanatory
	note
ificatons of the area:	note
2,	
z, ea - 459.8 m2,	
opment - 459.8 m2,	
650 m2	
0.2	
0.2	ბ. ქანთარია
0.7	B. Qantaria
	Sala min Judai a ma
ications of the building:	STUJGEE COUNCE S. 8200820
oors in the building - 1-floor	A. Gergedava
uilding - 3720 m3	E S REFUGEE Man > 25-42
	a lease and annihologo
n3	Format A-2
60 m3	OnDISER GEURGI
7 m2	ფურცელი ფურცლები Page Pages

Rendering



DANISH REFUGEE COUNCIL

28

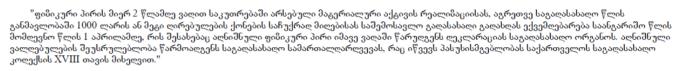
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მოვალეთა რე							
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გვერღი: 1(2)



- ლოკუმენგის ნამღვილობის გაღამოწმება შესაძლებელია საჯარო რეესგრის ეროვნული სააგენგოს ოფიციალურ ვებ–გვერღზე www.napr.gov.ge;
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  ამონაწერში გექნიკური სარვეზის აღმოჩენის შემთხვევაში ღაგვიკავშირღით: 2 405405 ან პირაღაღ შეავსეთ განაცხაღი ვებ–გვერღზე;
  კონსულგაციის მიღება შესაძლებელია იუსგიციის სახლის ცხელ ხაზზე 2 405405;
  საჯარო რეესგრის თანამშრომელთა მხრიღან უკანონო ქმეღების შემთხვევაში ღაგვიკავშირღით; info@napr.gov.ge

Project address:

DANISH REFUGEE COUNCIL

Typical

Kindergarten

#5, Akhalgazrdoba

street, Kareli

Georgia, Kareli

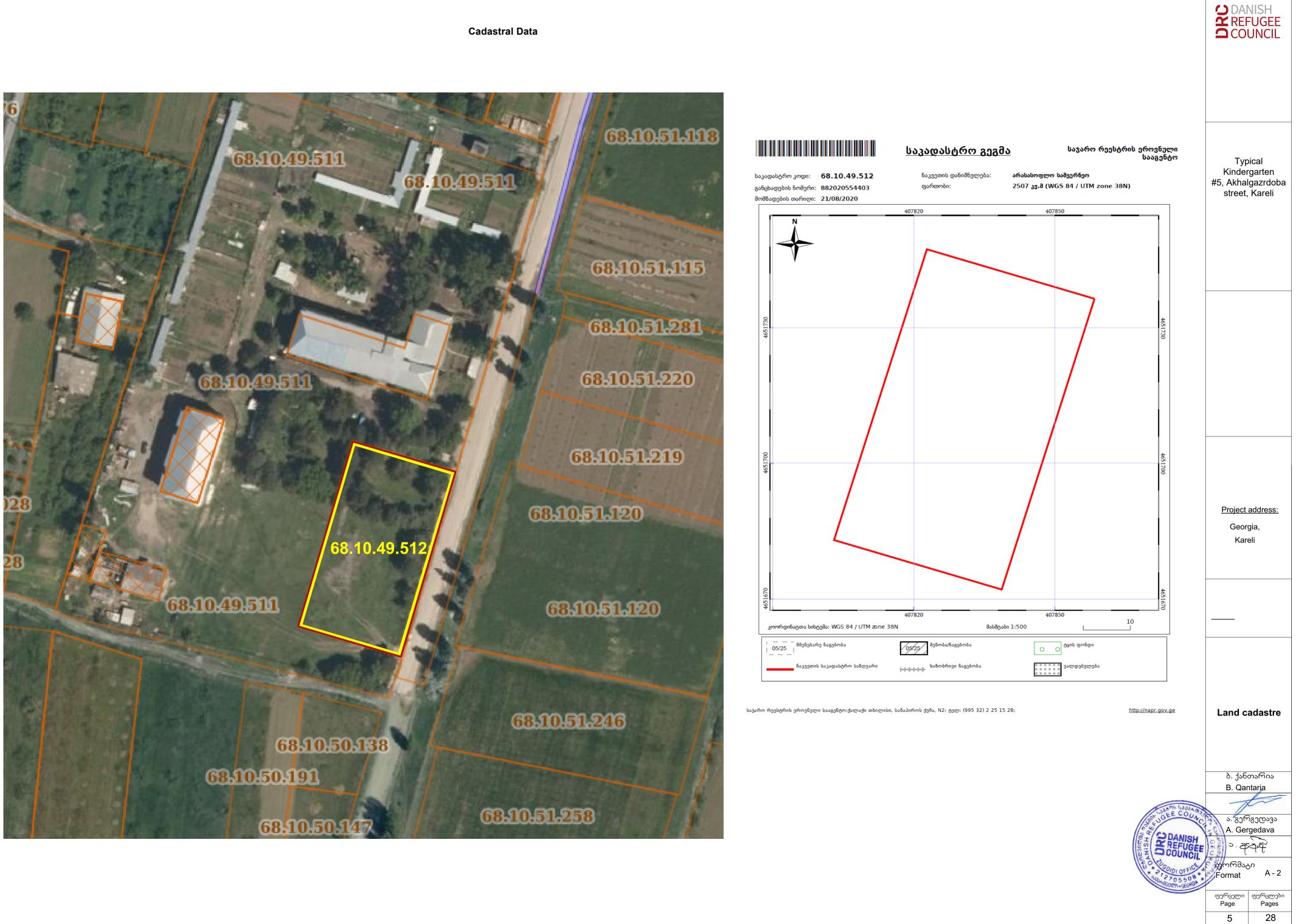
Stage: Architectural project

Land cadastre

საჯარო რეეს<sub>ტ</sub>რის ეროვნული სააგენ<sub>ტ</sub>ო. http://public.reestri.gov.ge

გვერღი: 2(2)

ბ. ქანთარია B. Qantaria ECO ა. გერგედავა A. Gergedava २. कुर्वुद्धे თორმატი A - 2 Format ფურცელი ფურცლები Page Pages 28 4

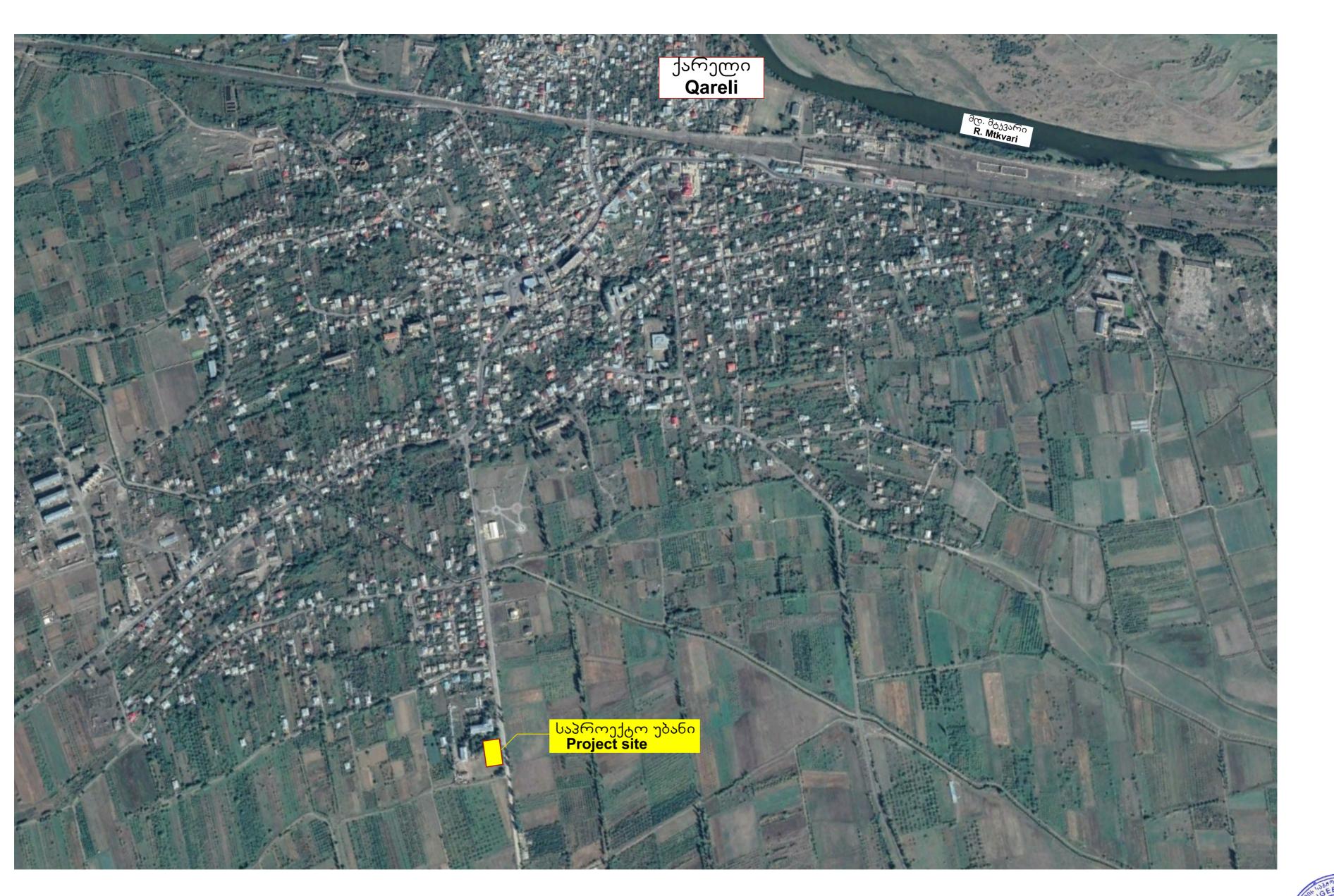


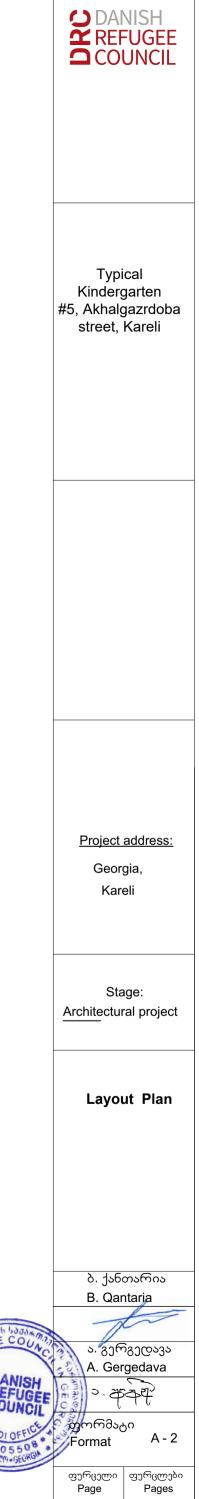












# **Conventional Signs**

	Cadastral border
<u> </u>	Wall fireproof (one hour)
	Wall Fireproof (150 minutes)
<i>`\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i>	Educational Group EG
//////////	Business Group BG
	Gathering Group GG-2
	Gathering Group GG-3
///////////////////////////////////////	Warehouse Group-2
	Concrete block masonry
•	Hand fire extinguisher
<b>⋌</b> →□	Exit sign

# Analysis of Compliance of the Building with Safety Rules

Used rules- Building	g Safety Rules
List the occupations	of the huilding
· · · · · · · · · · · · · · · · · · ·	8
Educational Gr	•
Business Gro	•
Gathering Gro	up-2
Gathering Gro	up- GG-3
Warehouse Gr	oup SG-2

ermine the construction type for	V-	
	Height Limitations	
Occupations	Allowable Height	Suggested Height
1. Educational Group EG	1 Floor	
2. Business groupd BG	2 Floor	—
3. Gathering Group GG-2	1 Floor	1 Floor
4. Gathering Group -3	1 Floor	
5. Warehouse Group-WG-2	2 Floor	
Total Height	8.00	
Number of floors above ground		1 Floor

l	imitations of the Area				
Occupations	Allowable area Suggested Area				
1. Educational Group EG	880	87.6 m2			
2. Business groupd BG	840	21.65 m2			
3. Gathering Group GG-2	560	110.92 m2			
4. Warehouse Group	1250	54.1 m2			
Total Area of The Flooring	4	15.7 m2			
Quantity of Flooring	Aboe the ground level 1				
Total area of the building	459.8 m2				

Requirements to External Wall Aperture						
	Eiro fighting distance	area of wall aperture				
External Wall	Fire-fighting distance	allov	vable	forseen		
		protected	protected	protected	protected	
Axis 1-8	21.2m.	unlimited	unlimited		28 %	
Axis A-E	27,7m.	75%	25%		14 %	
Axis 8-1	11,2m.	unlimited	unlimited		20 %	
Axis D-A	8.2 m.	unlimited	unlimited		15 %	

Requirements to the Fire-Prevention System						
Is there an auto-sprinkler system?		No				
Is there a fire extinguishing system?		No				
Is there a smoke control system?		No				
Are there hand-held fire extinguishers?	Yes					
Is there a fire alarm system?	Yes					
Installation of emergency lighting	Yes					

Number and width of exits for Educational						
Number of exits Width of exits						
Floors			Stairs		Other components	
	Requested	Envisaged	Requested	Envisaged	Requested	Envisaged
I Floor	1	1			0.82	1.00

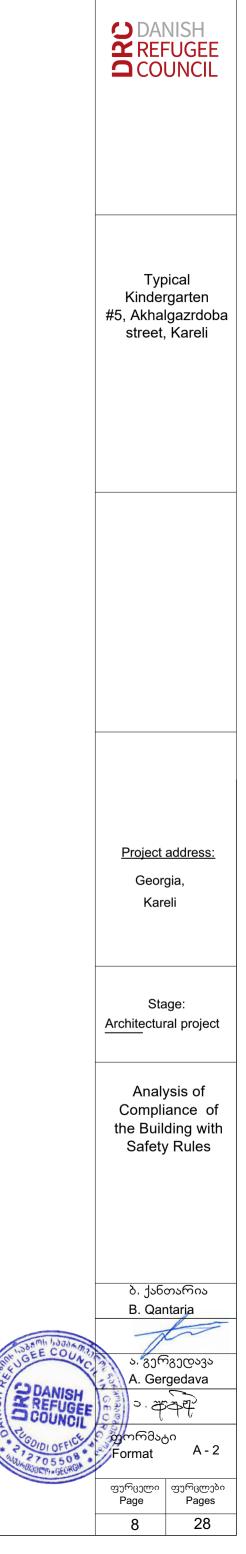
Number and width of exits and for Business Group							
	Nun	nber of exits	Width of exits				
Floors			Stairs		Other components		
	Requested	Envisaged	Requested	Envisaged	Requested	Envisaged	
l Floor	1	1			0.82	0.90	

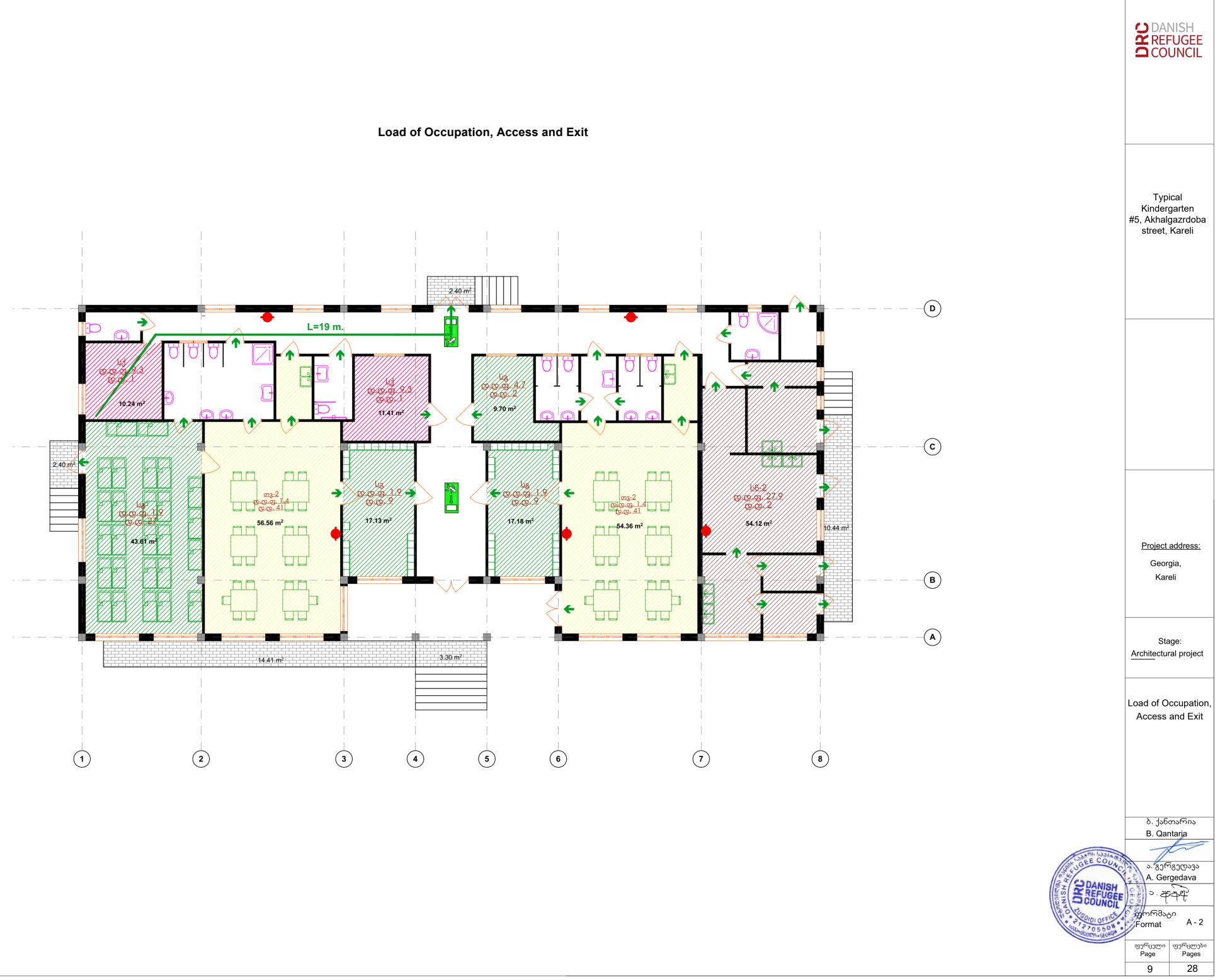
Number and width of exits and for Gathering Group-2						
Floors Number of exits			Width	of exits Other	components	
	Requested Envisaged		Requested	Envisaged	Requested	Envisaged
l Floor	1	1			0.82	1.00

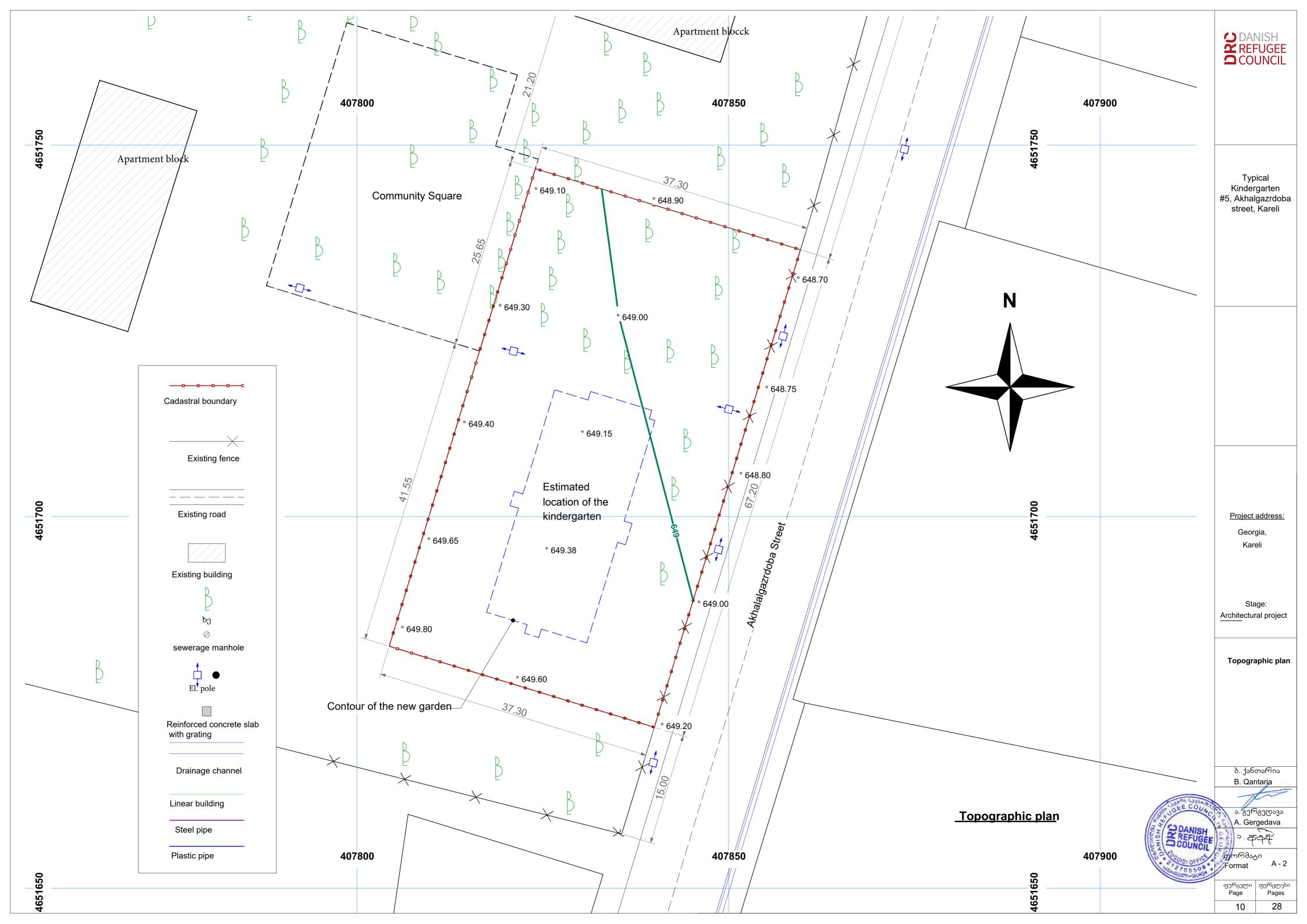
Number and width of exits for Gathering Group-3											
Number and width of exits for Gathening Group-S											
Floors	Nu	mber of exits	Width of exits								
				Stairs	Other components						
	Requested	Requested Envisaged F		Envisaged	Requested	Envisaged					
l Floor	1	2					0.82	1.50			

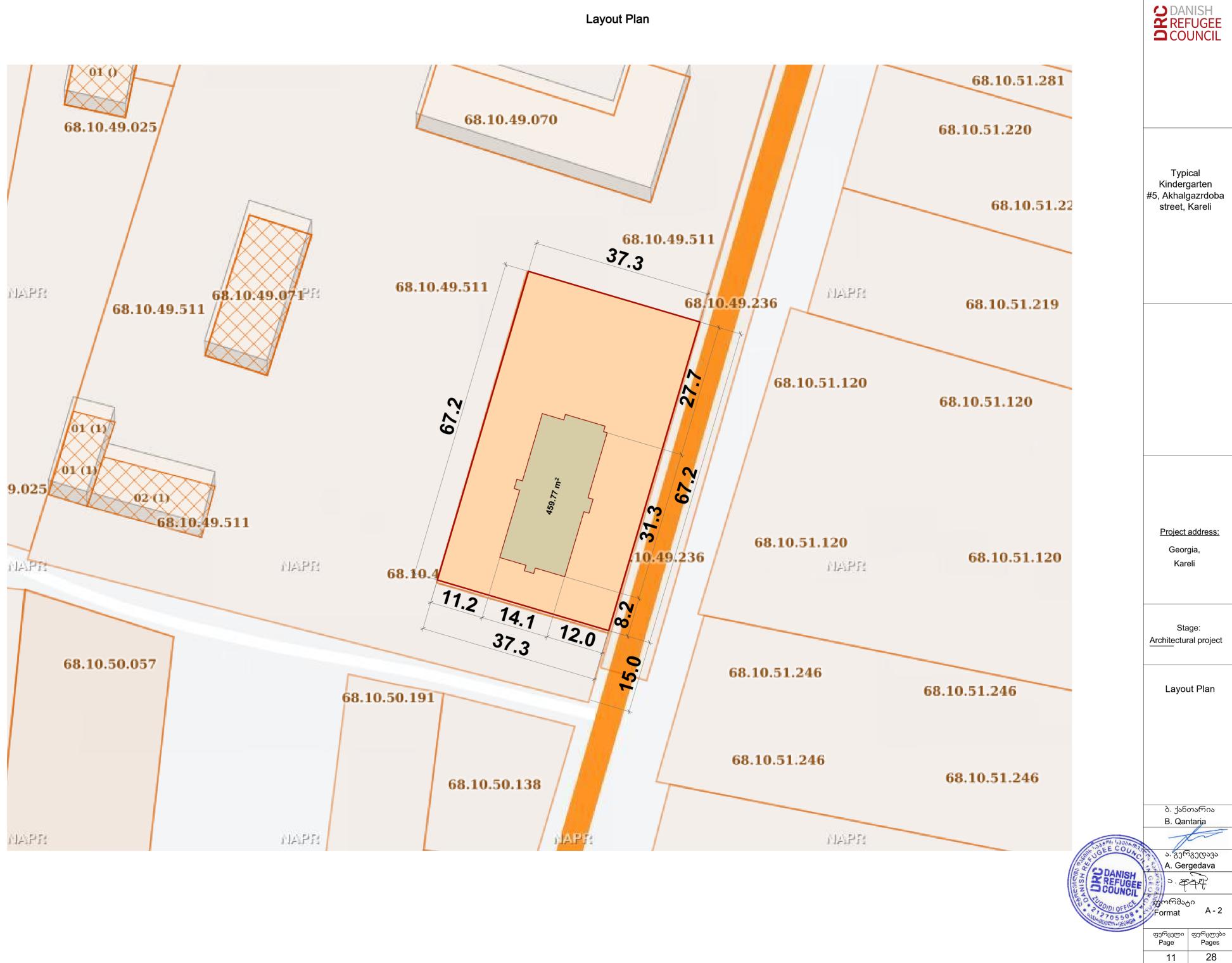
Number and width of exits for Wharehouse Group-2												
Floors	Number o	f exits		gasasvlelis sigane								
				Stairs	Other	components						
	Requested	Envisaged	Requested	Envisaged	Requested	Envisaged						
I Floor	1 1				0.82	1.00						

	Number of fixtures	of water supp	oly systems				
Calculation of load of occupation							
Fixtures		Requested	Envisaged				
	1	II	III	1	II	III	
Toilet bowl	J			FF			
Toilet wahs basin	J			FF			
Bathroom/shouwer room	2			2			
Fountian for drinking water	-			-			
Service wash basin	1			#			

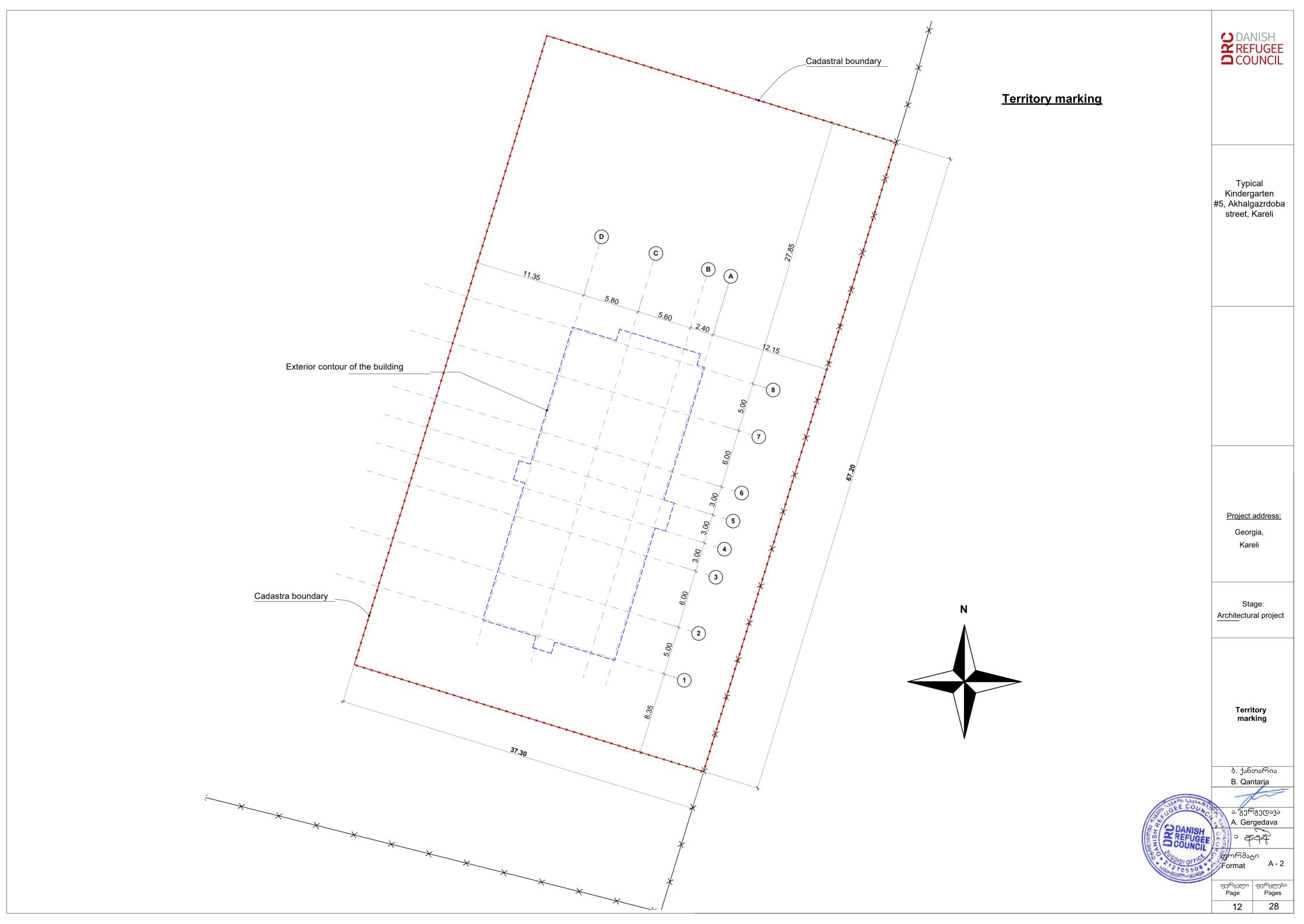






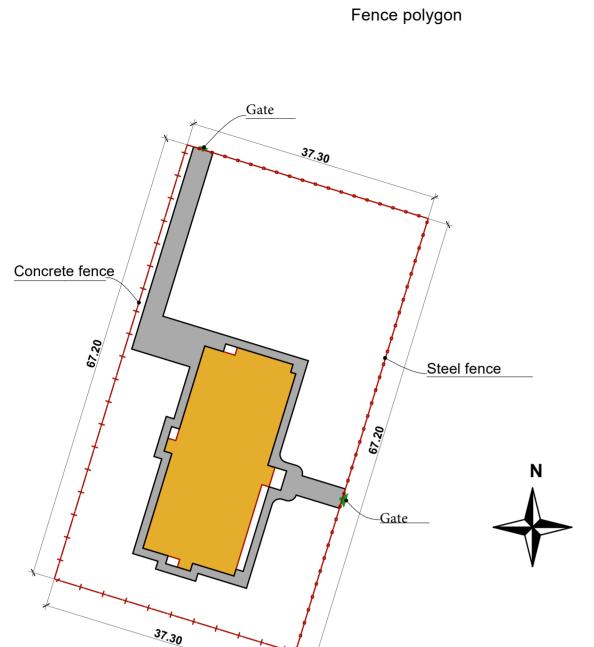


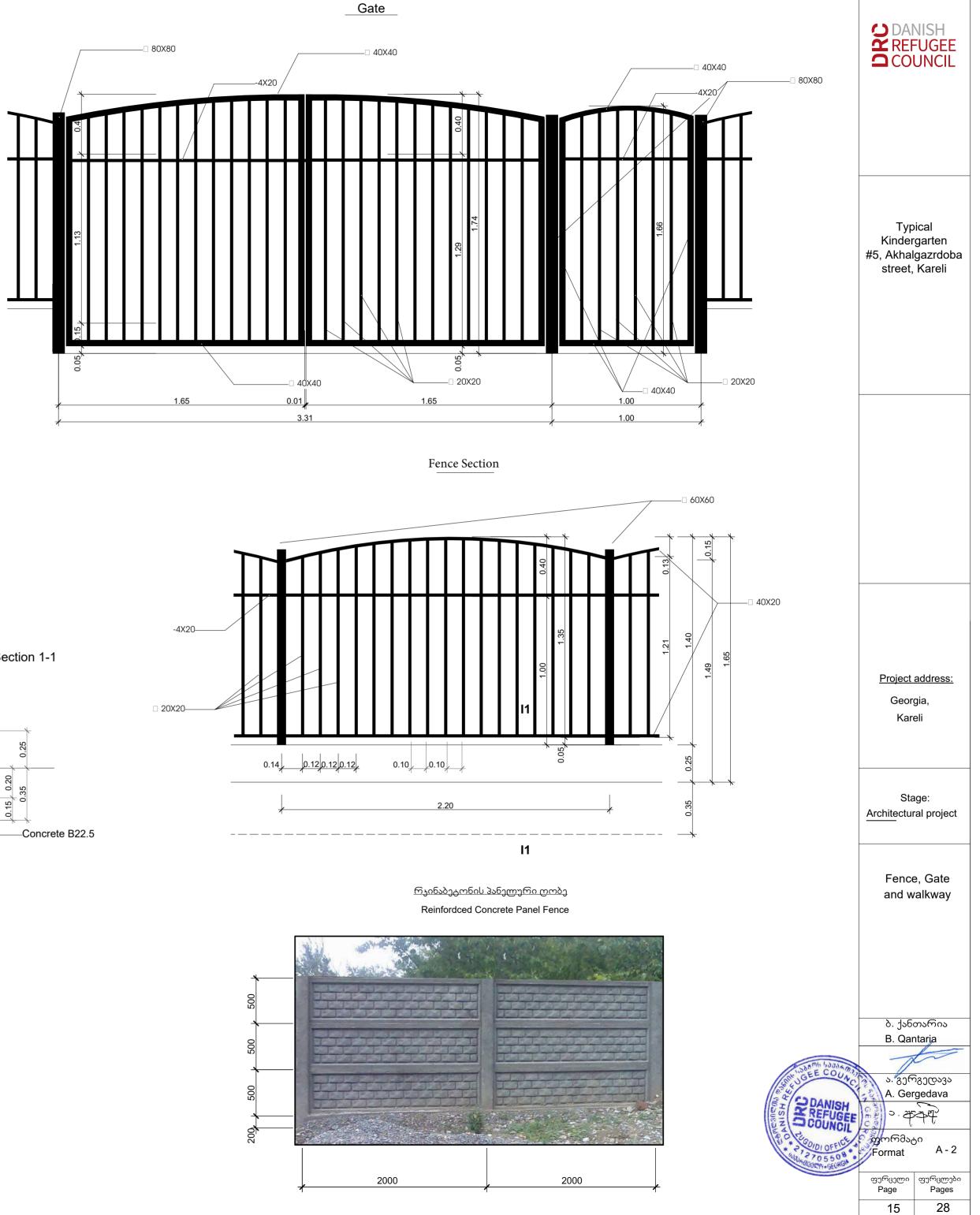
Layout Plan

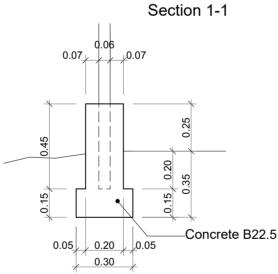




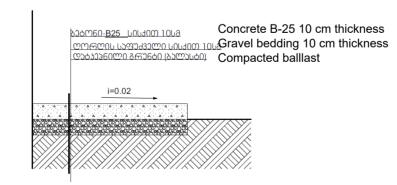








#### Walkway structure



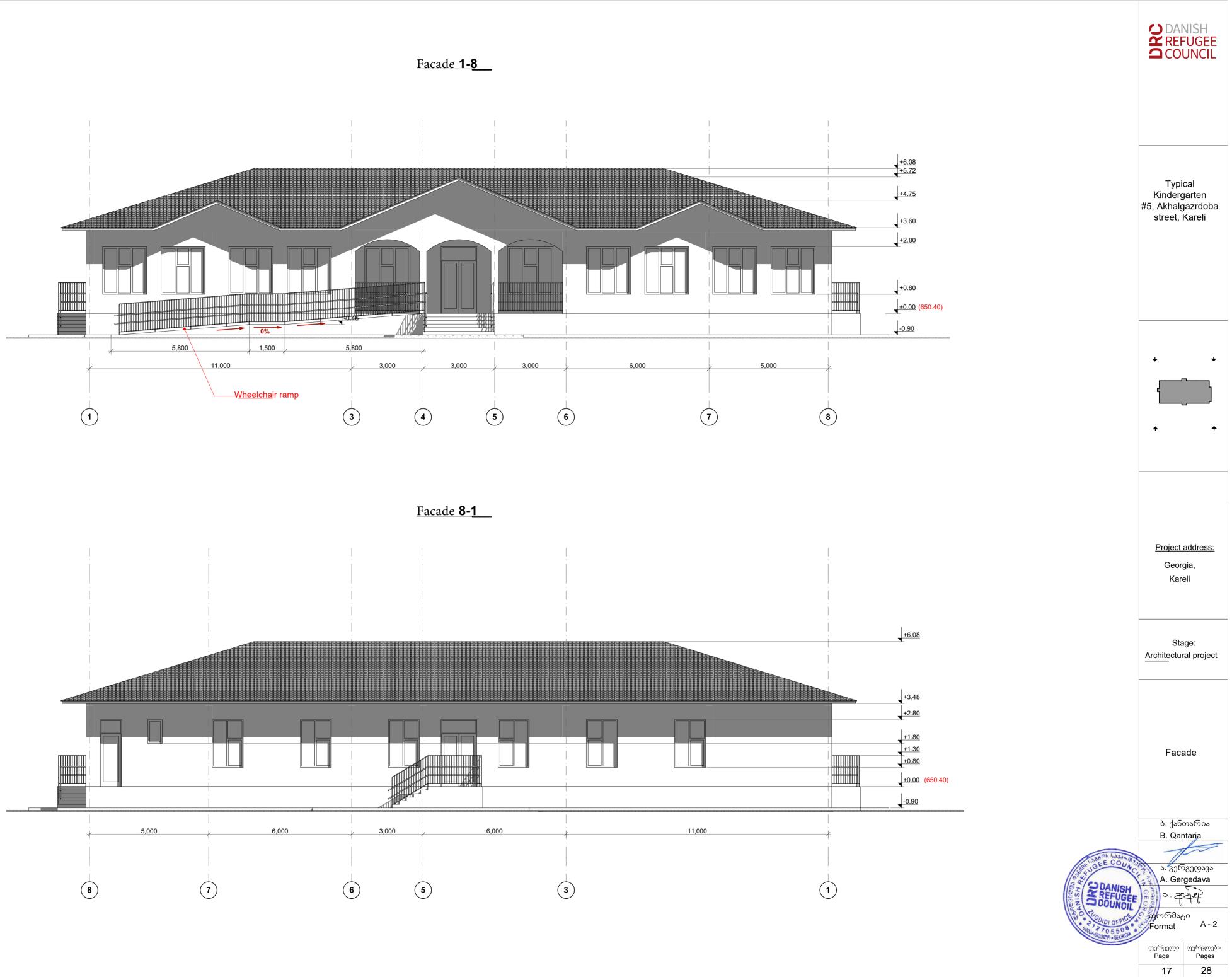


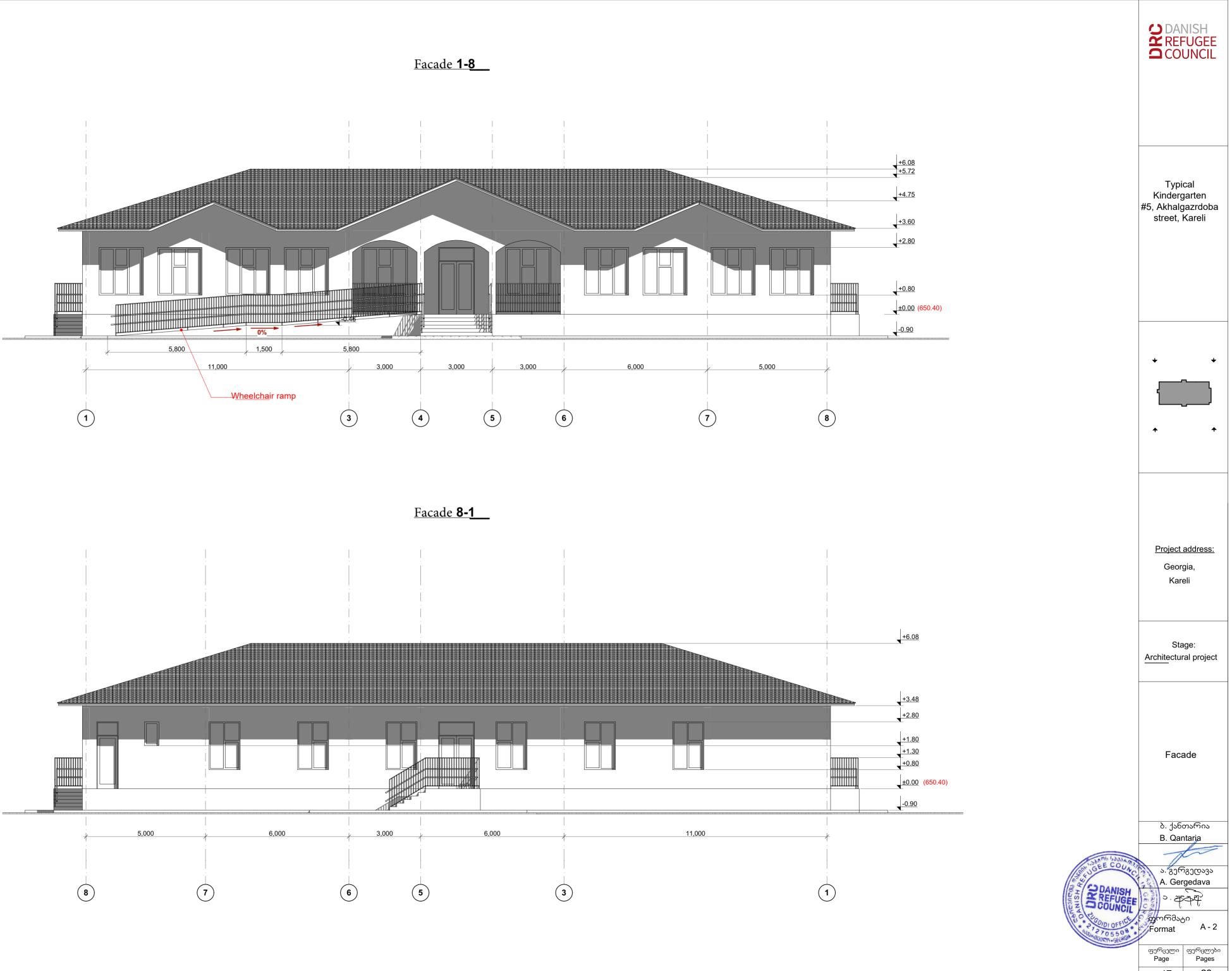


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DANISH REFUGEE

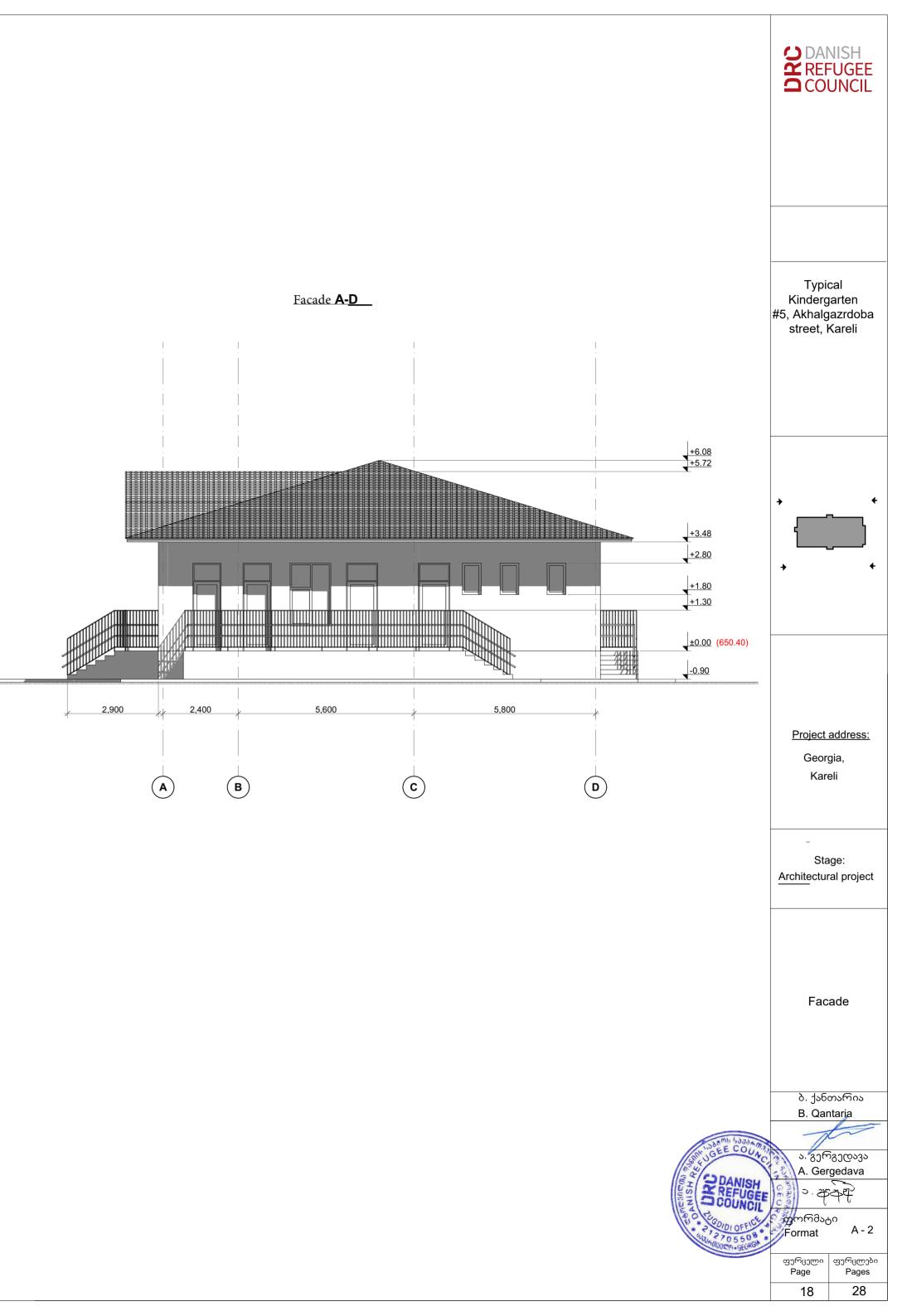








Facade **D-A** 



# Textures on Rendering







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Project address: Georgia,

Kareli

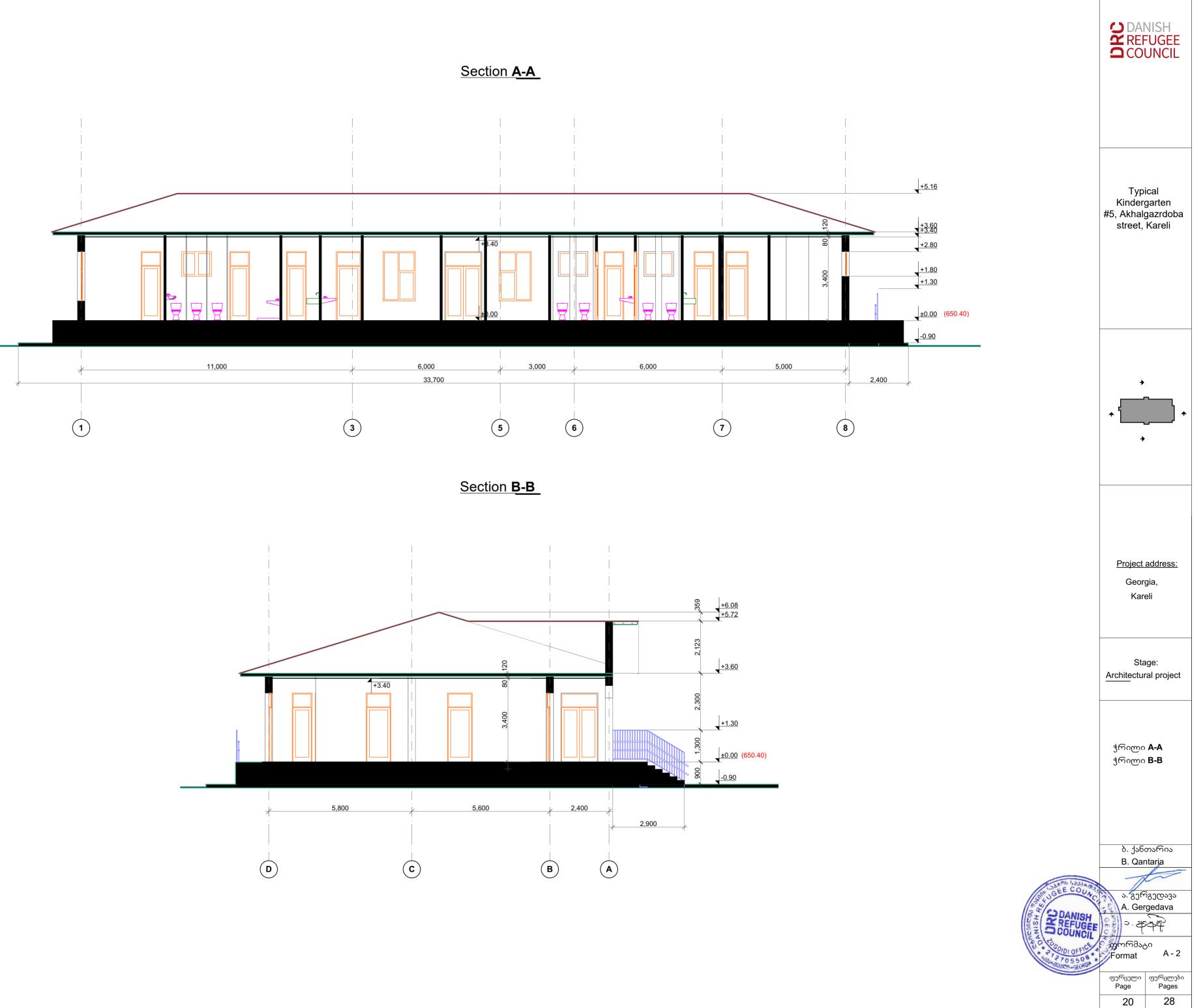
Stage: Architectural project

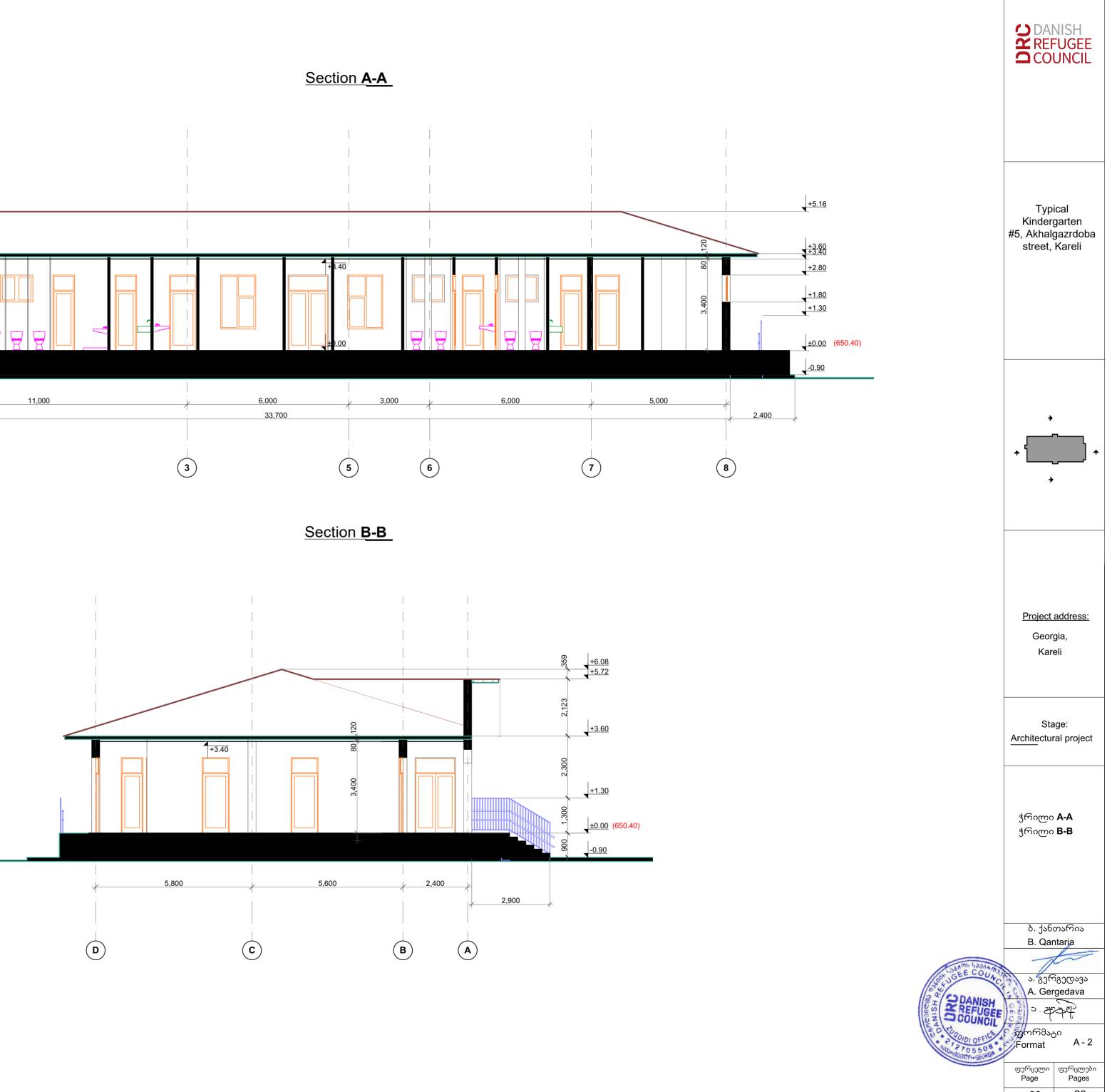
ფაქგურები რენდერზე

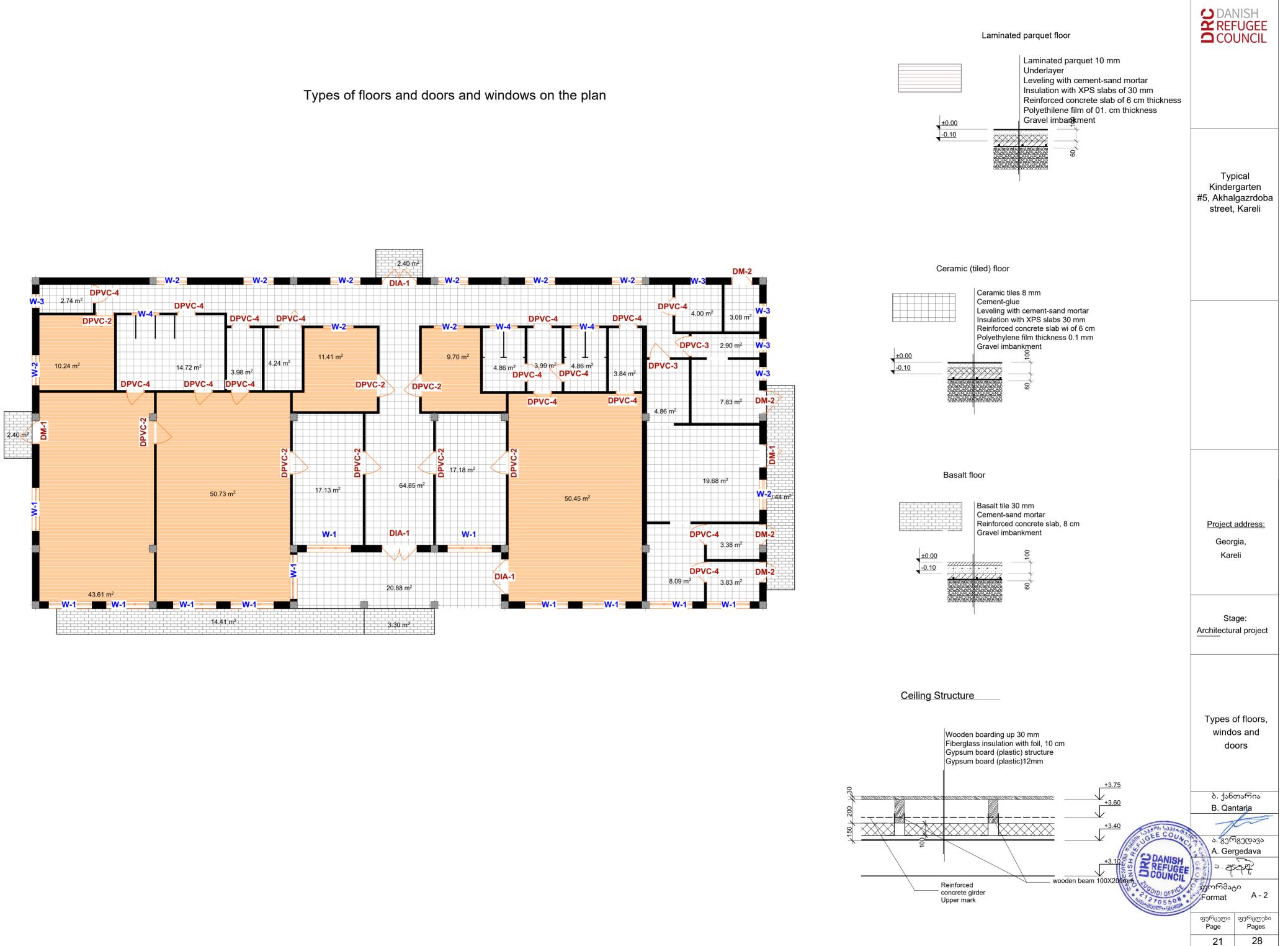
ბ. ქანთარია B. Qantaria ა. გერგედავა A. Gergedava DANISH REFUGEE COUNCIL २. क्विमे

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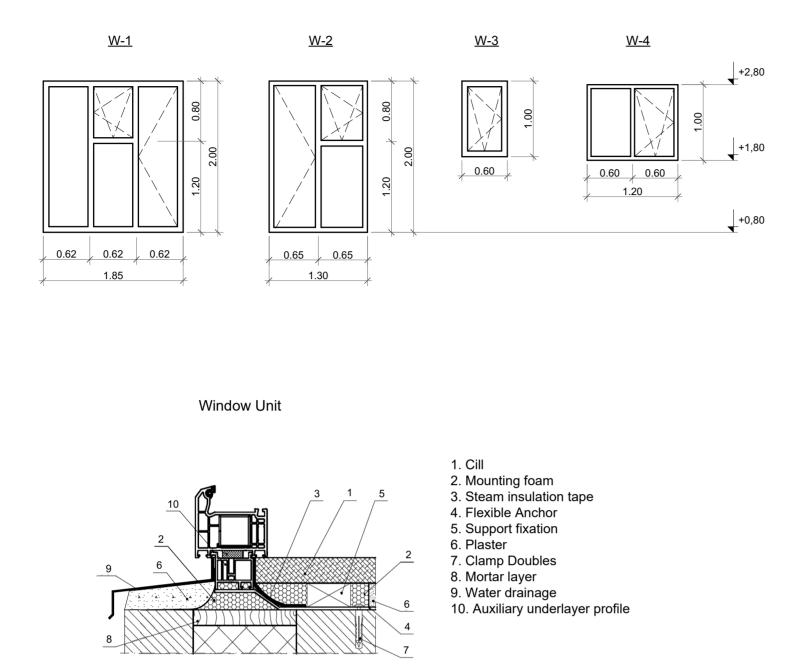
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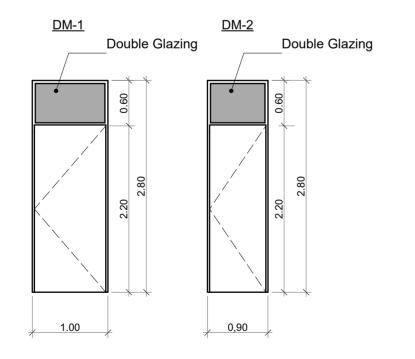
## **PVC Windows**

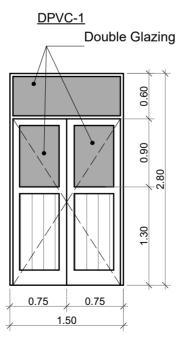


Iso-aluminum Door

<u>DIA-1</u> Double Glazing 0.60 90 o. 0 0.75 0.75 1.50

### Steel Door with Double Coating and Insulation





Note: bathrooms for adults. Specification

მარკა Mark	რაოდ ენობა Quantity	ენობა ოო ოო		m2	∑ м2		
DIA-1	3	1500	2800	4.2	12.6		
DM-1	2	1000 2800		2.8	5.6		
DM-2	4	4 900		2.52	10.08		
DPVC-2	8	1000	2800	2.8	22.4		
DPVC-3	2	900	2800	2.52	5.04		
DPVC-4	16	800	2800	2.24	35.84		
W-1	12	1850	2000	3.7	44.4		
W-2	10	1300	2000	2.6	26		
W-3	5	600	1000	0.6	3		
W-4	3	1200	1000	1.2	3.6		

Typical Kindergarten #5, Akhalgazrdoba street, Kareli

DANISH REFUGEE COUNCIL

Project address:

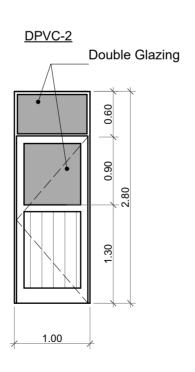
Georgia, Kareli

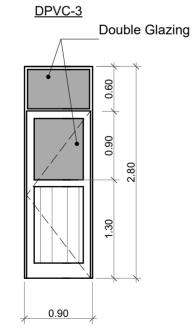
Stage: Architectural project

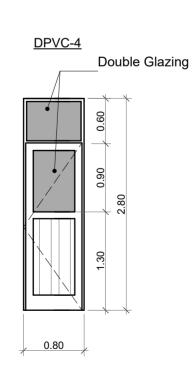
> Windows and Doors



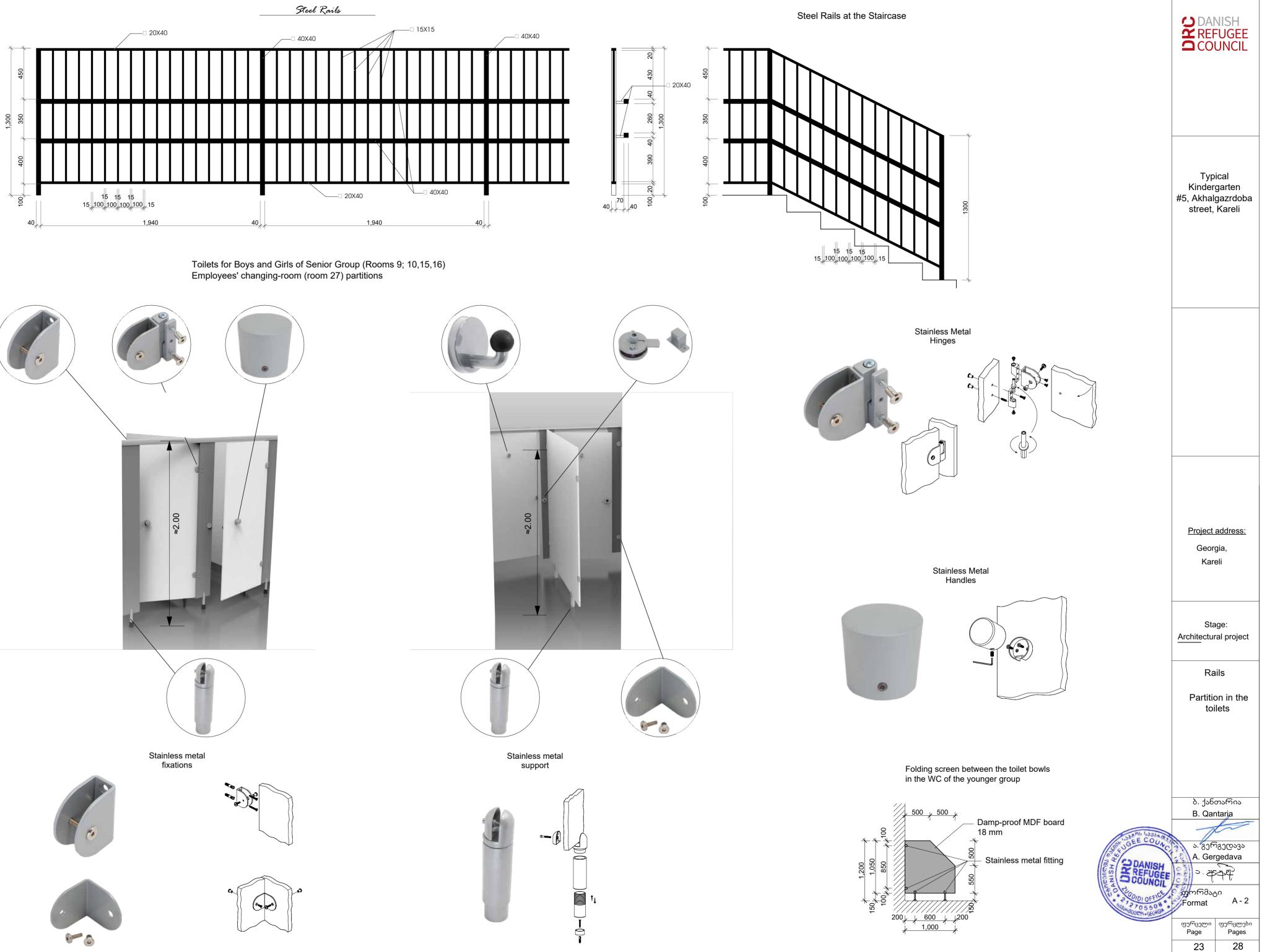
**PVC** Internal Doors

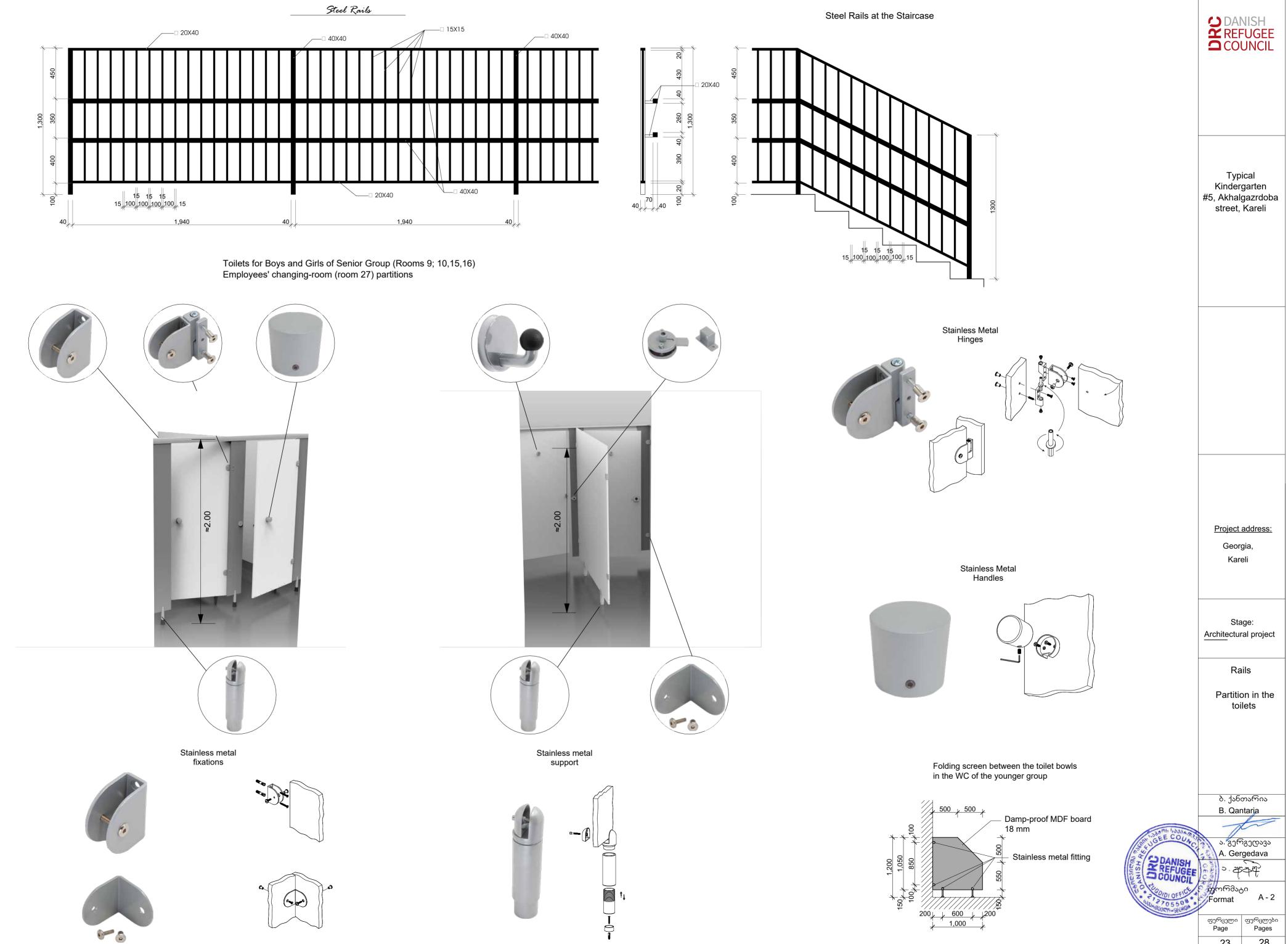






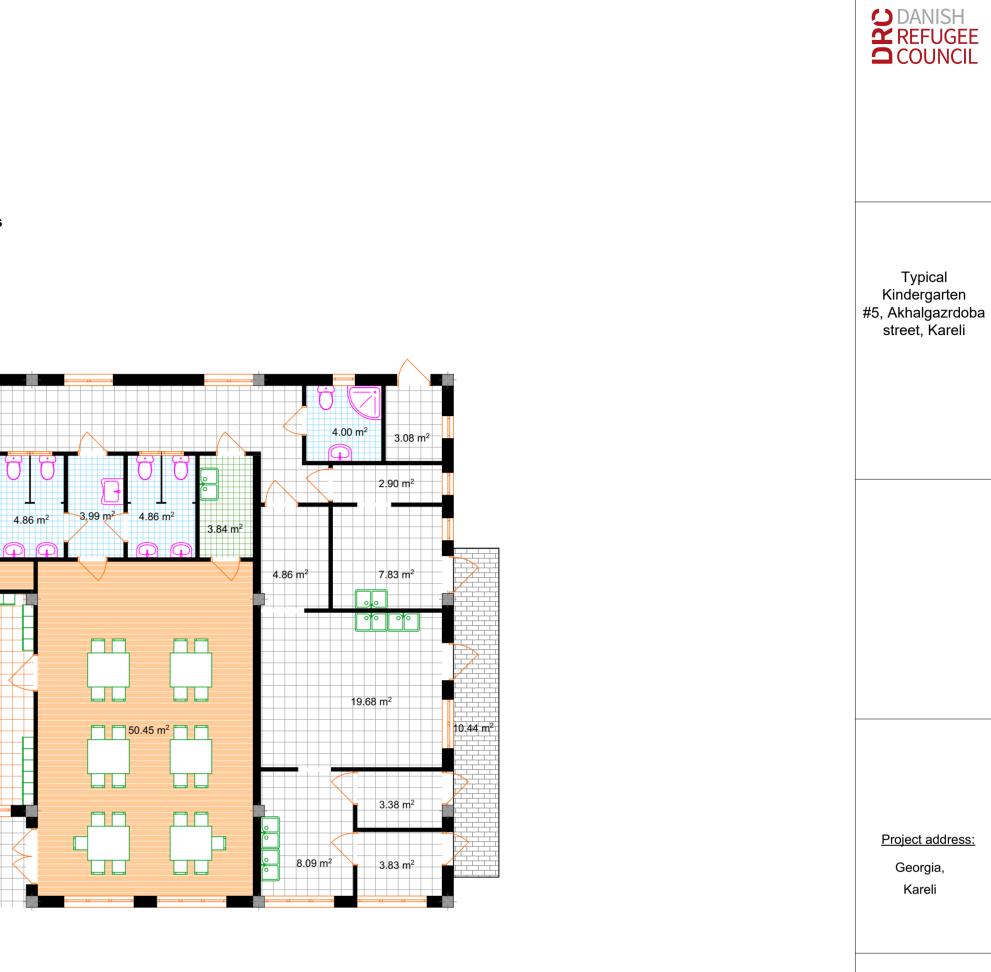
Door glazing should be darkened for administrative rooms and





Technological Plan of the Rooms





Stage: Architectural project

> Technological Plan of the Rooms

 δ. ქანთარია

 B. Qantaria

 Scource

 s. გერგედავა

 A. Gergedava

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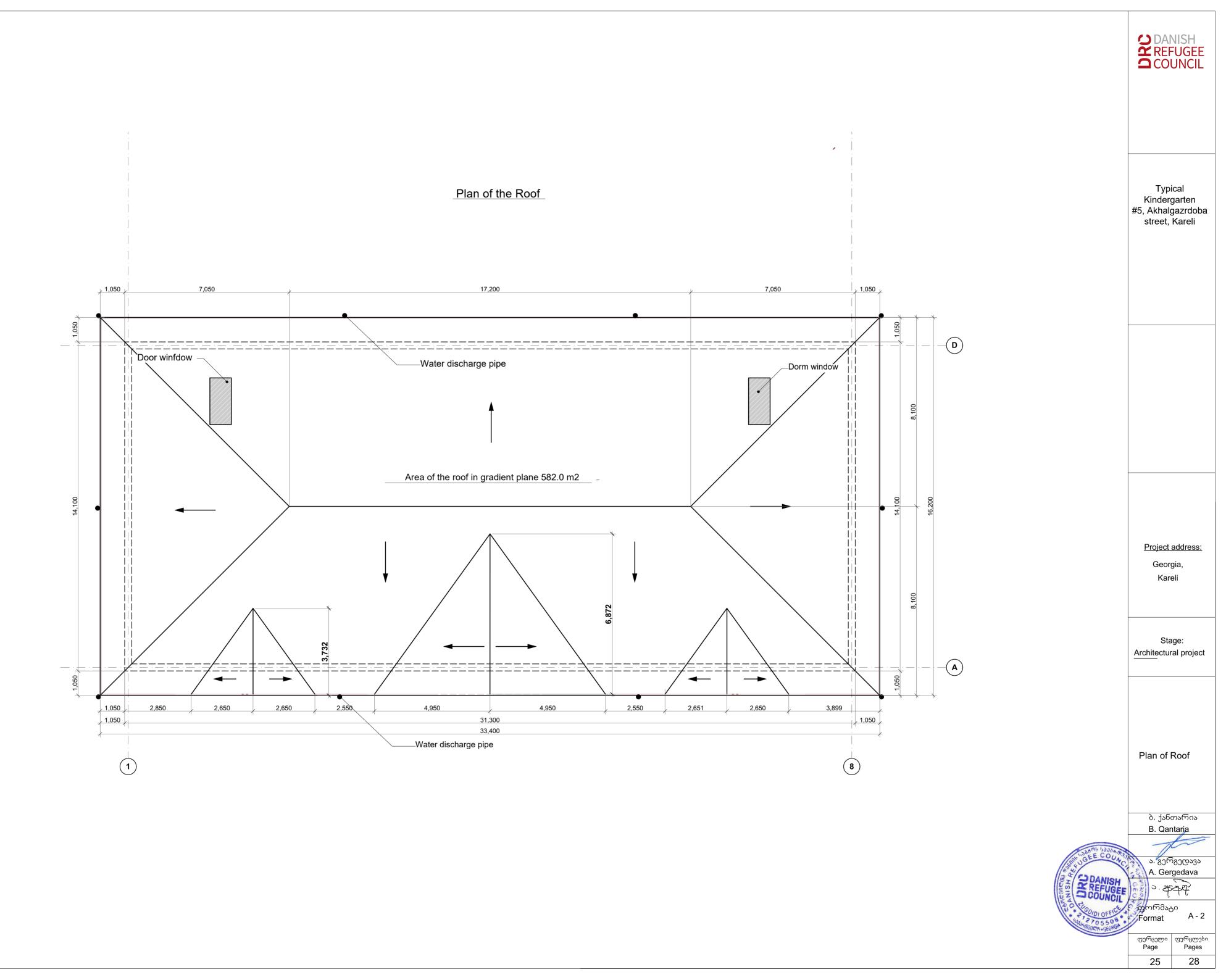
 s. გერგედავა

 A. Gergedava

 cource

 cource

24



#### განმარტებითი ბარათი

The construction organization project has been developed in accordance with the Resolution of the Government of Georgia "On the Rules and Permit Conditions for Issuing a Construction Permit" and considering the construction norms and rules 3.01.01.-85 `Organizing the construction'. The development of the Project of organizing the Construction was based on the draft construction documents. Object and surrounding area data.

The start of construction is allowed after the issuance of a construction permit by the City Hall. Construction should be carried out in accordance with the technological plan and schedule in accordance with the technological cycles. It is not allowed to deviate from the decisions of the approved project documentation, all changes in the project must be agreed upon with the authors of the project.

Arrangement of all temporary electrical installations and networks on the construction shall be carried out in compliance with the applicable electrical rules and regulations, as well as safety equipment rules.

#### **Construction Conditions and Description of the Site**

From the engineering and geological point of view, the area allocated for construction is in satisfactory condition, no physical-geological events (landslides, collapses, etc.) are observed. Due to the location of the whole territory of Georgia in the seismically active zone, construction norms and rules - "Seismic Construction" (01.01.09) apply to the design of new buildings, as well as reconstruction, reinforcement and restoration of residential, public and industrial buildings. Construction norms and rules should be applied in conjunction with other normative documents in the construction industry.

During the construction, the construction norms and requirements of the rules in force in Georgia approved by the order of the Minister of Economic Development of Georgia must be observed.

The construction site is a rectangular plot of land bordered by both public areas (on the street side) and adjacent plots.

The project envisages the placement of a kindergarten building on the land plot with the main façade towards the public zone (street), the main entrance will be arranged on this side. Yard landscaping and fencing are also provided.

The planning solution of the building envisages placement of three groups of kindergarten in it, one of them will have a bedroom block, and two, designed for preschoolers, will not have such a block, in this group the toilets for girls and boys are separate.

The building presented in the project is a one-storey stone building, the floor level of which is raised by an average of 1.0 meters from the ground (including the walkway).

The height of the floor of the building from floor to ceiling is 3.4 meters.

The filling of the outer walls is done with a reinforced pile of small wall pumice blocks 30 cm thick.

The bearing structure of the building is a complex reinforced concrete frame, reinforced concrete columns, monolithic reinforced concrete slabs, and reinforced concrete foundations, reinforced concrete columns on the exterior walls can be concreted in parallel with the construction of the walls.

The partitions are made of reinforced small wall pumice block with a thickness of 10 cm. The floors in the bathrooms are tiled, and the rooms are made of wooden planks (deck). Floor warming is completed with XPS tiles, while ceiling warming is done with glass wool. The suspended ceilings of the toilets and the kitchen are made of plastic, while in the rooms they are made of gypsum board. The bearing structure of the roof is made of wood, while the roof is made of painted metal tile. The windows are made of PVC with double glazing. Entrance doors are made of steel and iso-aluminum, metal in the sanitary units, and wood in the rooms (socalled MDF).

External stairs and platforms are paved with basalt tiles.

A concrete walkway is arranged around the building.

The building is provided with electricity, sewerage and water supply, as well as internal heating networks, which will be connected to external main districtnetworks.

#### **Constrution Organizing Project**

Technical specifications of the building: Number of floors in the building - 1 floor The volume of the building - 5013.0 m3 Among them:

Surface - 4058.0 m3

Underground - 1055.0 m3

Total area -627.84 m2

Prior to construction, the construction site should be fenced by a temporary fence within the cadastral boundary. The project of vertical planning of the area for the transfer of surface water to the street envisages the arrangement of bulk in the part of the yard with a ballast, for which a concrete wall is provided, on which a metal panel fence will be arranged.

Finished concrete should be delivered by a concrete pump, which can be installed in the inner space of the vard in the northern as well as in the southern part of the area.

According to the decree of the Government of Georgia, taking into account the characteristics of the building grades, the building belongs to the 3rd grade.

#### Construction Terms and Stages

The duration of construction is determined according to the purpose of the building, the number of floors, and the materials used. Considering 1.04.03-85. In 8-9 magnitude seismic areas for civilian buildings, the seismicity coefficient is taken as K = 1.15. Construction terms were determined taking into account the real logistical conditions and capabilities.

The duration of construction was set at 12 months, including 1 month for preparatory work. Preparatory work consists of two stades:

1. Preparatory works, which envisage removal of garbage and construction solid waste in the area, arrangement of ballast dump in the area, its compaction and then fencing of the construction site.

2. Tracing the building and marking the main axes.

Preparatory work includes organizational activities as well as external and internal works of the construction site.

Sequence of construction works:

1. Land and building foundation arrangement works.

2. Arrangement of the foundation and the main construction system of the building at the zero mark.

3. Installation of main bearing and non-bearing structures on the story of the building. 4. Installation of the roof of the building.

Installation of doors and windows.

Exterior finishing works of the building.

7. Interior finishing works of the building (in parallel, installation of electrical and other engineering networks, in particular, instaation of water supply, sewerage and heating system).

8. Landscaping works.

#### **Organizing Construction Site and Construction Safety Rules**

Prior to the commencement of major construction works, the construction site and its surrounding area shall be arranged. The boundaries of the construction site should usually be within the cadastral boundaries of the land.

After arranging the ballast bulk, the construction site is fenced and temporary buildings are laid out. Before the earthworks are started, the building axes are marked and removed from the perimeter of the building.

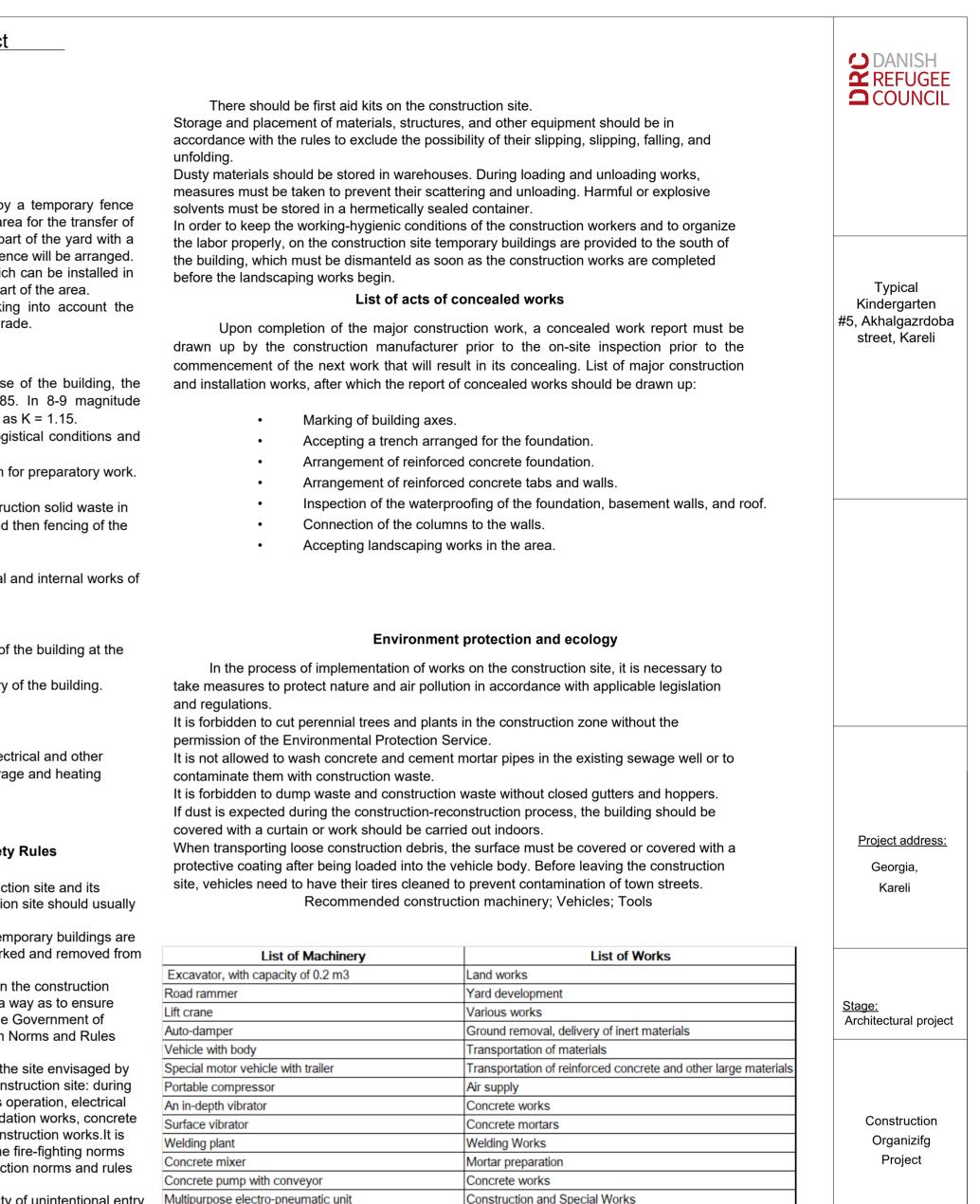
An information banner visible from public spaces should be placed on the construction site. The works on the construction site should be organized in such a way as to ensure construction safety in accordance with Resolution # 6228.03.07 of the Government of Georgia, as well as the `Construction Safety Rules` and Construction Norms and Rules 111-4-80.

The construction safety rules apply to the works to be performed on the site envisaged by the construction permit and define the safety requirements on the construction site: during organization, construction machinery, technical equipment, and tools operation, electrical and gas welding, loading-unloading, insulation, earthworks, the foundation works, concrete and reinforced concrete works, installation, dismantling and other construction works. It is necessary to observe all fire-fighting measures in accordance with the fire-fighting norms during construction-installation works in accordance with the construction norms and rules 2.01.02-91.

Access to the construction site should be controlled and the possibility of unintentional entry by strangers should be avoided. The fence in the traffic area should be covered with a protective cover to ensure the safety of pedestrians. In the dark, fencing should be equipped with signal lamps or there should be used material or color that is visible in the dark. The area of the dismantled building (in case of fixation) should be fenced in the same wav.

There should be a responsible person on the construction site who will be responsible for implementing safety

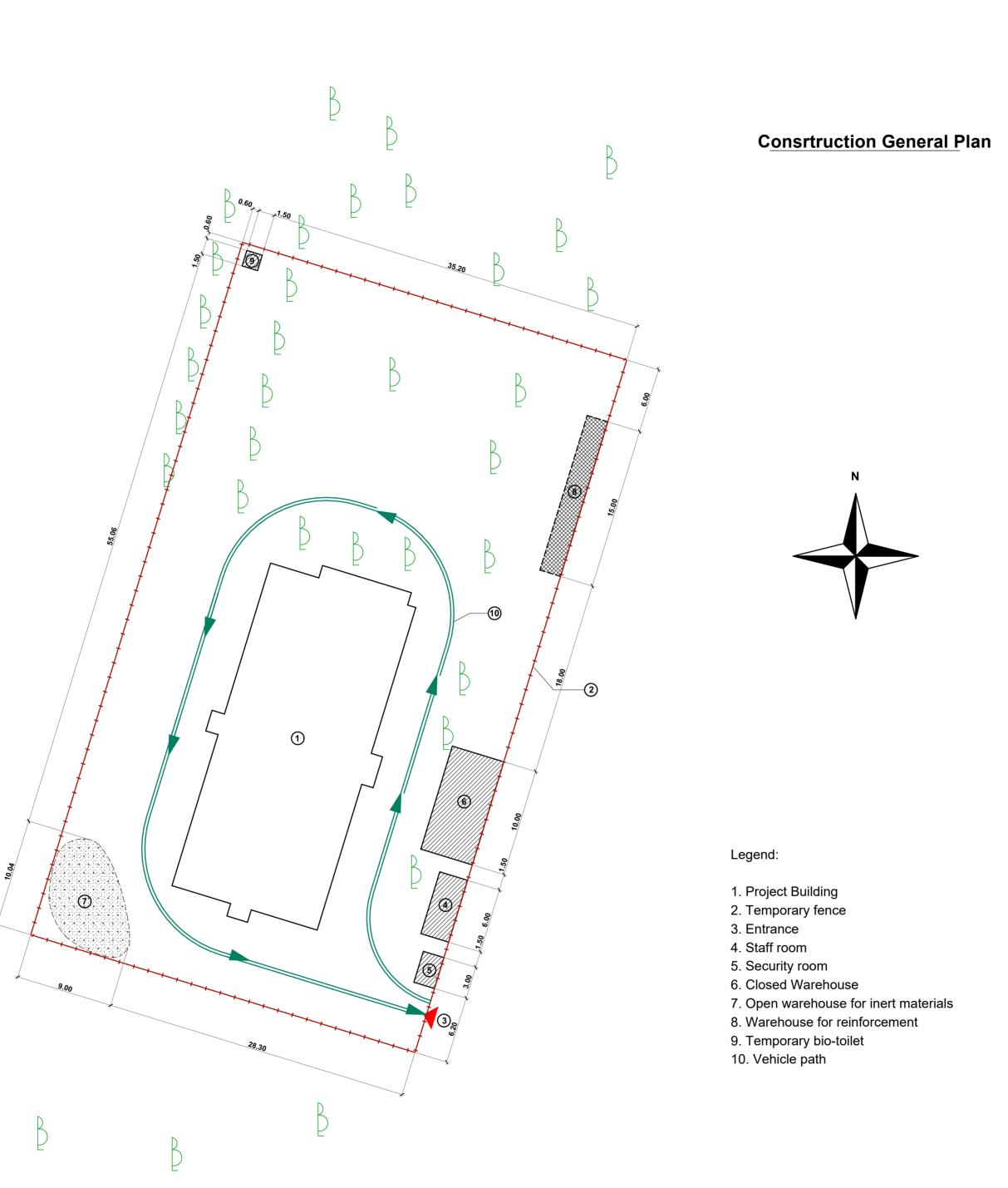
Workers and engineering staff must wear helmets, and special work must be performed using appropriate equipment.





Note: It is possible to use modern equipment of the same parameters taking into account the existing technical data

Multipurpose electro-pneumatic unit



DANISH REFUGEE COUNCIL

Typical Kindergarten #5, Akhalgazrdoba street, Kareli

Project address:

Stage:

Architectural project

Construction

General plan

ბ. ქანთარია B. Qantaria

ა. გერგედავა A. Gergedava

A - 2

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२. क्ट्रेर्ट

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თორმატი

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Format

UGEE

Georgia, Kareli

Time Schedule of the Construction

		18									8			
		I		II				V	V		VI		VI	
1	Preparatory work													
2	Arrangement of imbankement on the territory													
3	Foundation works													
4	Basement works													
5	Floor concreting													
6	Construction of wall column													
7	Concreting of reinforced concrete slabs													
8	Roofing of the building													
9	Installation of windows and doors													
10	Wall plastering													
11	Finishing works													
12	Electric installation works													
13	Sanitary-engineering works													
14	Yard development works													ſ
15	Cleaning of the territory													Γ

