ARCHITECTURAL REPORT

DESIGN AND STUDY OF THE JOINT SCHOOL“RAMAZAN KARAJ”, GYM AND KINDERGARDEN IN NIKEL

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Report : Study and design of The Joint school "Ramazan Karaj", Gym And Kindergarden In Nikel

Scope of the project:

Referring to the presented requirements in relation to the design of the joint school building and kindergarden, we have designed a project taking into account a considerable number of factors that impact the design itself, as the actual conditions of the site, the design standarts of the educational facilities, the terms of reference given by the client and the contemporary standards of design aimed to achieve in this project. According to the submitted requests, the project of the buildings will follow the functional scheme for the educational buildings for the lower secondary cycle and preschool.
For the design of the project, we considered, in the first place, the actual conditions of the given site and the local conditions. Also, we have taken into consideration all the neccessary functions that need to be included as part of the facilities we have to design and new functions that might be added to the standart scheme.

Specific objectives of the project are as follows:

• Undertake the study, and design of the school and kindergarten project to meet the required standards
• Design the neccessary and improved infrastructure for a normal functionality of these educational buildings
• Optimisation of the available area and site
• To introduce a new concept regarding the way of construction and design of schools and kindergardens in Albania
• Design an environment with optimal conditions for teaching and caring of the children and students.

The local conditions and available site areas given by the interested parites and the submitted requirements for the designer are taken into account for the design of the project.

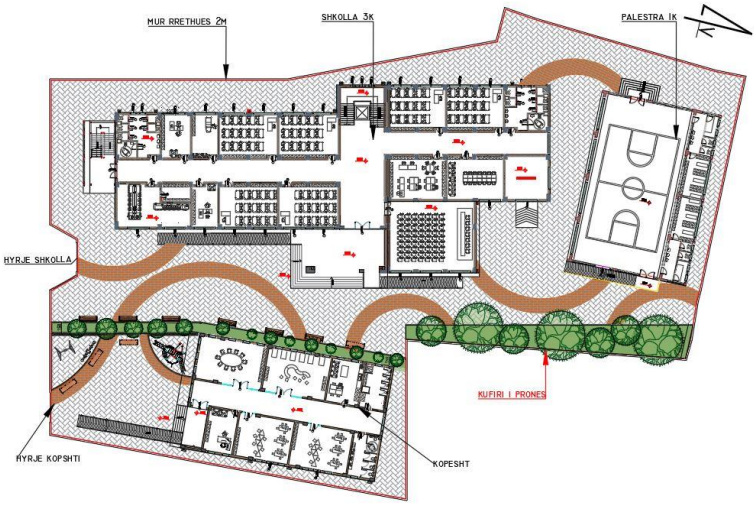
Summary of requirements for the designer regarding the project:

- Field analyzes and the current assessment of the situation.
- Analysis and design of the project by having in mind to:
- solve the problems identified above, and prepare the project
- provide solutions for new spaces for the assessment of teaching practices and preschool care.

The project is part of the contribution to the recovery of the educational service in the local communities in which students can recover the lost time of learning and the use of teaching hours in a decent environment. It will also help in the gradual normalization of the lifestyle of the affected population in those municipalities, considering the educational facilities as a priority.
For the rebuilding of the facilities, a Build Back Better (BBB) approach will be taken. The recovery within a BBB framework would give the impacted communities the chance to reduce risk not only from the immediate hazard but provide an opportunity to sustainably reduce the future risk. BBB offers the opportunity to rebuild stronger, safer, more disaster-resilient infrastructure and systems and with higher standards.

The existing conditions of the site:

The total area of the land to be development is 4404 m2, of which in 1199 m2 will be developed by the building of the middle school and in 436 m2 the gym and in the rest of 468 m2 will be developed by the building of the kindergarten.



The terrain in which the building is located is presented with a flat relief and is in favor of thinking recreational areas and green landscape.

With the site being close to the main road, buildings are easily accessible by students and employees of the institution.

Based on the needs for school facilities, the new school building will occupy an area of about 1199 m2, the gym will occupy an area of 436 m2 and the kindergarden will have the remaining area of 468 m2.

Conceptualisation of the project and design standarts

In the design of the buildings, the approved standarts have been taken into account, providing the necessary infrastructure for different categories of students with disabilities. Special access requirements have been considered for all users: students, teachers and administration staff, parents and visitors, however the main focus is on the special needs of students with disabilities.

We have taken care to allow all users to use the services available in the buildings of educational facilities, the "universal scheme" approach has been used, which will ensure that educational facilities are achieved and used: 1) to the greatest extent possible , 2) in the most independent and natural way possible, and 3) in the widest range of situations, without the need for adaptation, modification or specialized solutions.

In terms of sustainability concepts, improvements have been made in energy efficiency through sustainable technologies and heating systems. The design aims to achieve optimal energy efficiency in the building within the construction cost constraints and local parameters.

The facilities are designed with all their functional components, as provided in the Declaration of the Council of Ministers no. 319, dated 12.04.2017 "On the approval of standards for school design" and include the following guidelines:

- Classes, in the design of classrooms the area is calculated according to the standard of 28 - 32 students per class, with min 1.5 m2 per student

- Laboratories, to calculate the area needed for the laboratory classes is taken taken into account that the space for each student had to be 2.2 m^2 and also areas for auxiliary facilities for equipment and preparation are calculated.
- Libraries, library users are students and teachers, so this is taken into account for the library area by calculating a minimum area of 0.15 m for each student.
- Physical Education Hall, according to the design norms, joint schools must have a separate gym building for physical education and outdoor playgrounds. The dimensions for the gym are calculated so that basketball and volleyball can be played in this environment.

The school building

Before deciding how the building will be designed, it is necessary to evaluate the functions that are included in it and how these functions are related to each other.

Based on the submitted requests and based on the data on the functional scheme of joint schools, the spaces that are included in the school building are:

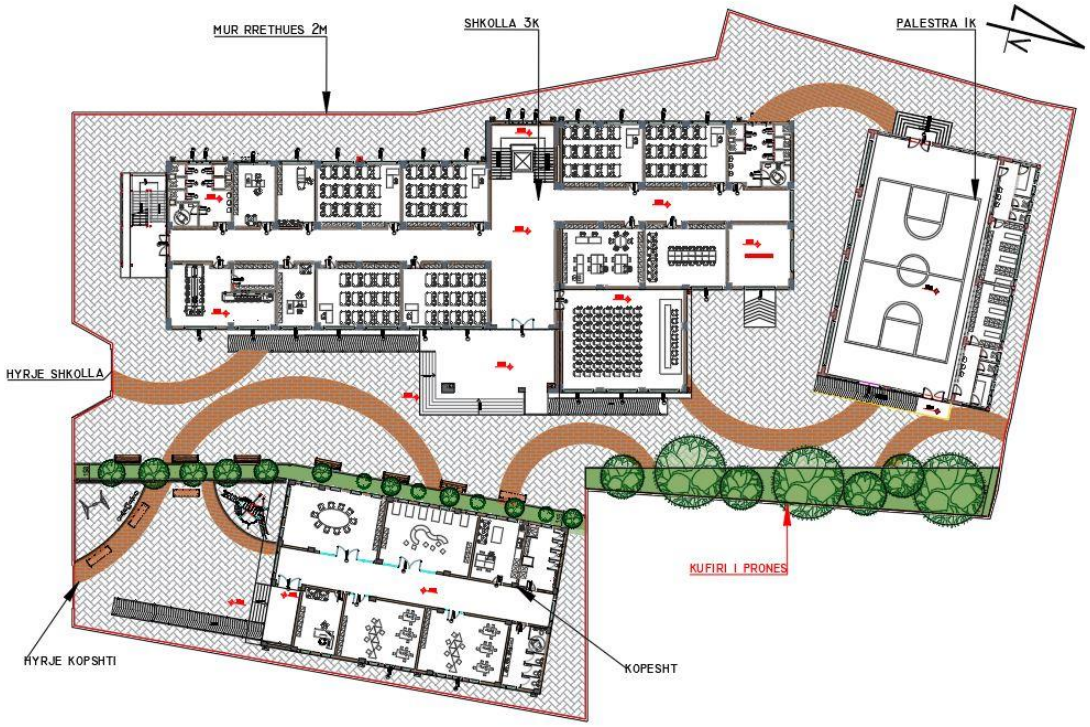
- Teaching facilities
- Staff facilities
- Library
- Laboratories
- Sanitary facilities
- Space required for circulation
- Gym + sports area

It is intended, based on the placement of the existing building, that the school building will have the linear shape.This has been thought of as the most appropriate shape given the typology of which the building is part of and as well as the orientation of the classes.

Based on the program provided for the necessary spaces, functional schemes of planimetry have been built. The facility is developed in two floors.

Positioning in the site

Regarding the positioning of the building on the plot we can say that it is placed in such a way that the main facades are oriented east/ west and the main entrance being easily accessible by students and employees.



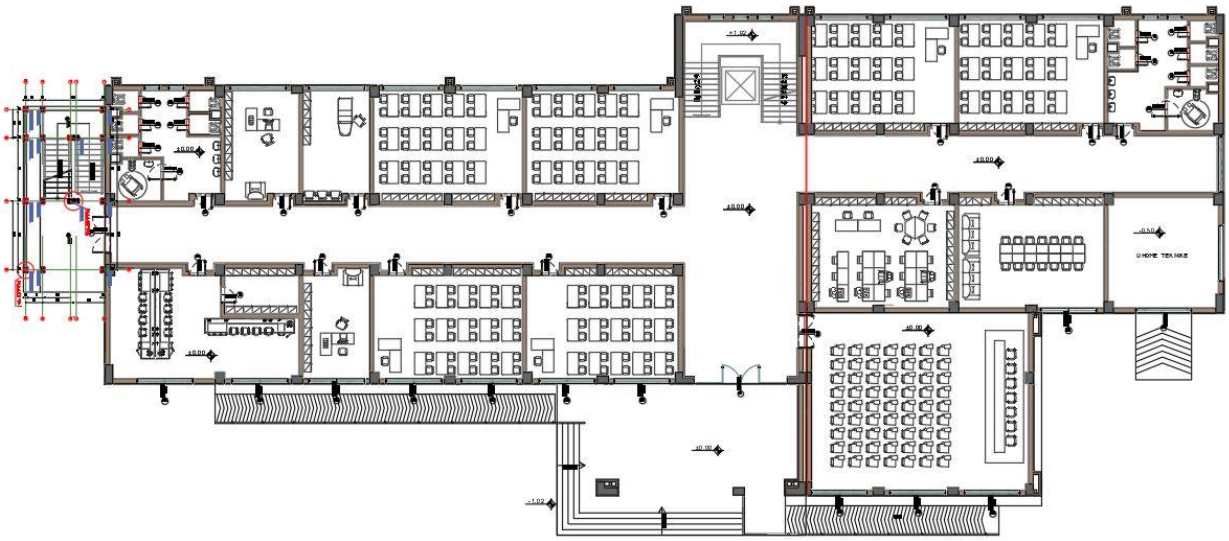
The longitudinal facades of the building are oriented according to the east west direction. In front of the building there is a gathering square which meets the space requirements for the number of students in the school. Green spaces and recreation facilities for students are designed around the square.

Positioning the entrance to the front of the building makes it not only easily accessible by school attendees but also serves as a formative element in the appearance of the building. Also, the main entrance is equipped with two ramps for people with disabilities, according to the standards of the design regulation.

The new school contains a total of 24 classrooms, 3 laboratories,2 computer lab as well as administrative and social facilities respecting the following area schedule:

- Ordinary classes and laboratories 29 (45-58m2)
- Director 1 (37m2)
- Library 1 (45m2)
- Deputy Director 2 (21m2)
- Psychologist 1 (22m2)
- Nursery 1 (21m2)
- Teachers' Hall 1 (50m2)
- Sanitary areas (62m2) on each floor for men, women and PAK
- Technical spce 1(35m2)
- Gym 1 (360 m2 - object separated from the school)
-Multifunctional room 1 (115 m2)

The main school hall also serves as an open recreational environment which can be used for the development of various activities.



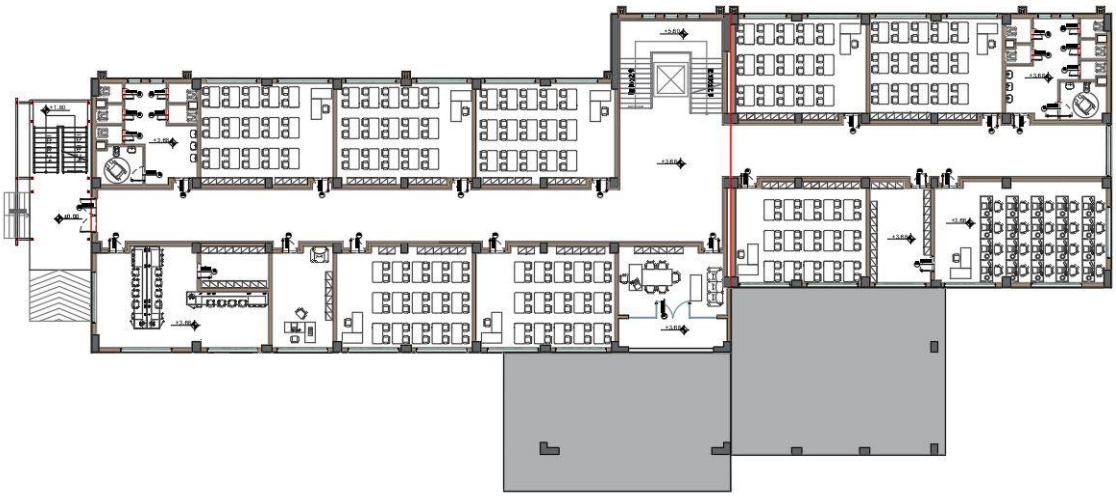
On the ground floor are located the following functional areas :

- 6 classrooms - 45-47 m² each
- Library - 46 m²
- 2 blocks of sanitary facilities - 32 m² each
- Space for the psychologist and social worker - 22m²
- Nursery 21m²
- 1 Chemistry laboratory 47m²
- 1 Lab storehouse 10 m²
- 1 Teachers' Hall 46 m²
- Hall and circulation space - 2 m²
- Technical space - 35 m²
-1 secretary office - 22 m²
-Multifunctional room 115 m2

Classes are provided for a maximum of 30 students. In the sanitary areas of the ground floor, two sanitary spaces are provided for people with disabilities (one for men and one for women). In this floor are also located the spaces for the school nursery and the psychologist together with the social worker in order to be as easily accessible as possible by the students.

CLASSROOM

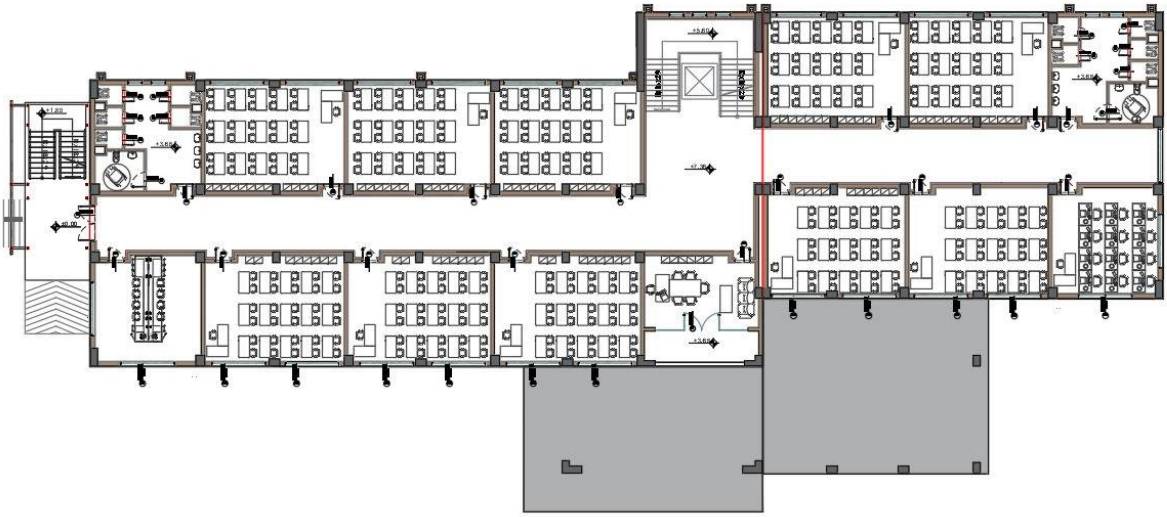
CHEMISTRY LAB



On the first floor are located the necessary teaching and administrative areas as follows :

- 8 classrooms -	45-47 m² each
- 2 blocks of sanitary facilities -	32 m² each
- Deputy Director's Office -	36m²
-1 Physical laboratory	47 m²
- 1 Lab storehouse	10 m²
- 1 Computer Lab	58 m²
- 1 Server room	22 m²
- Hall and circulation space	227m²

DEPUTY DIRECTOR'S OFFICE



On the second floor are located the necessary teaching and administrative areas as follows :

- 10 classrooms -	45-47 m² each
- 2 blocks of sanitary facilities -	32 m² each
- Deputy Director's Office -	36m²
-1 Physical laboratory	47 m²
- 1 Computer Lab	58 m²
- Hall and circulation space	227m²

COMPUTER LAB

Architectural design

The main goal of the project from the architectural point of view is to create an educational environment that fully meets the terms of reference, an environment that is functional and manageable, to have a more human level of perception and to create abundant and open spaces which have symbiotic relationships with the school’s indoor environments. The project also aims to present a new school design example by improving their social standards, as well as serving as a social point for the community.

The design of the spaces is performed by taking into account the modern teaching standards and creating optimal conditions for both the students and the teaching staff.

The building offers facilities with the necessary functions for a modern day student. It includes teaching, educational, sports and a range of other services. The spaces are designed on the basis of design standards to create the right comfort during the learning process and also other activities performed in the building.

The project includes fire protections both in terms of specifications of the materials used and in terms of evacuation and measures used to put out the fire.

Architecturally, the project is treated with a contemporary expressive language. The materials used for the facades, in terms of refinishing and exterior systems, are used in terms with the modern construction technology but also suitable for the local area where it is being built. The project shows all the construction details of the external system of the facades.

Plaster and graffiato are used for the facades of the building. The front facade is also partially covered with black granite tiles, which is also used to cover the external stairs of the main entrance, emphasizing it more in the volumentry of the buildings. Granite is also a strong and durable material which, as a result, increases the life of the facade.

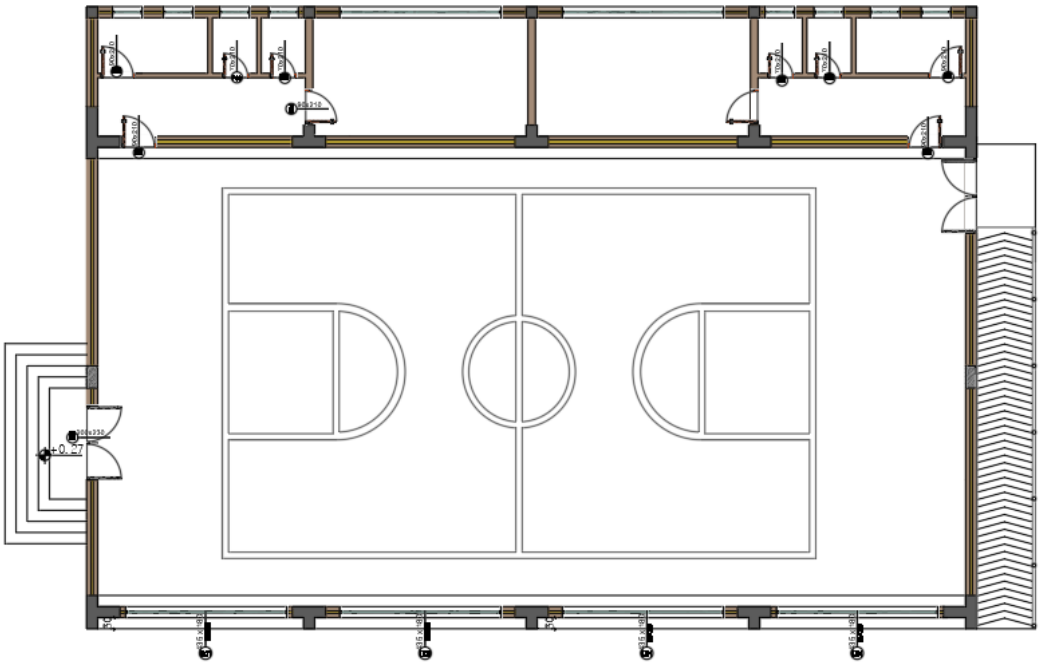
Given the area where it is located and the intensity of rainfall in the winter season in this area, the school building will be covered with a truss system and equipped with a gutter system for drainage of rainwater.

The outdoor courtyard is conceived as an organic and functional part of the whole school.

Gres tiles are used for the internal floors and white plaster for the internal walls of the overall areas. The premises will be equipped with heating system. All windows are double glazed in order to achieve the thermal insulation effect. The corridors will be painted with plastic paint and the exterior plastering of the building will be graffiato. It is also foreseen the arrangement of the environment and landscape around the building, the establishment of the water drainage system of the yard. All the construction details are shown in the project sheets.

The gym

The indoor gym located next to the school is designed with the same principles and building technologies as the school building. The facades are plastered with graffiato and the constructive elements of the structure are shown in the facade as a conturing frame. The building is covered with a truss structure which is suitable for covering such large spaces but it is also a very good solution for removing rainwater and protecting the building from humidity problems

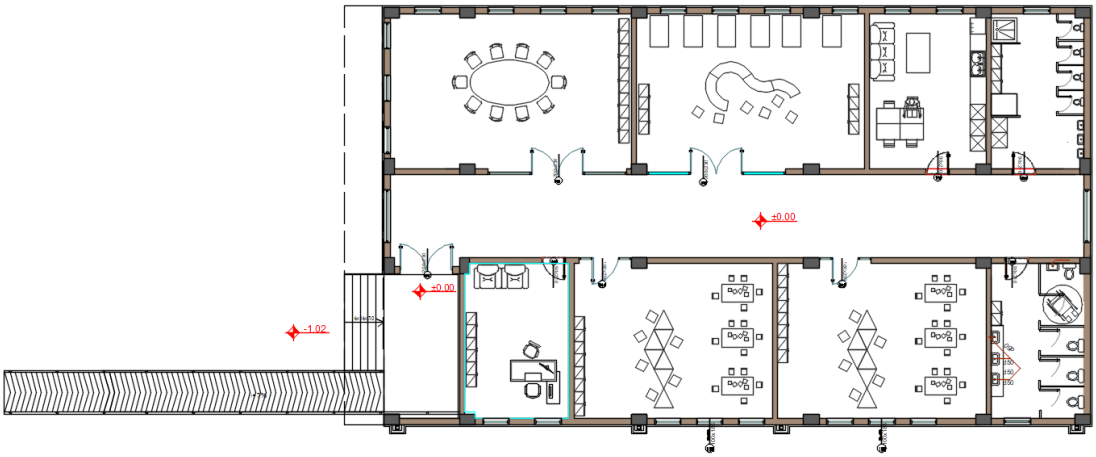


The gym has an area of 360 m^2 where 280 m^2 is the space of the sports field while 75 m^2 are the auxiliary facilities of the gym including:

- Sanitary facilities for men and women
- Warehouse for sports equipment
- Dressing room for women
- Dressing room for men

The kindergarden

The kindergarden building is developed in an area of 824 m^2 with a constructed area of 468 m^2 in a 1 storey building. Available facilities are provided for 30 children and for the necessary staff for teaching and administration. According to the guidelines in the terms of reference and guidelines for the design of educational buildings, the following areas are designed:



- 2 classrooms - 45m² each
- 1 quiet room - 52m²
- 1 block of sanitary facilities for the children - 21 m²
- 1 block of sanitary facilities for the staff - 21 m²
- Director's office - 24m²
- Multifunctional hall - 55m²
- Hall and circulation spaces - 86 m
- Staff room - 26 m²

The building is equipped with the necessary infrastructure for the physically impared, including an easily accessible ramp and sanitary facilities.

Indoors are all naturally lit by calculating the light space in a ratio of at least 25% of the total space of the respective environment.

Regarding the facades and the exterior envelope of the building, the same language of refinements has been followed as in the school and gym building, thinking of it as a harmoniuous, despite the entrances and areas of the school and kindergarten are separate.

The building is designed to be built with concrete and massonry structure. The facades are plastered with graffiato and the windows are contoured with a frame of resin creating a certain rhythm. Simple construction technology creates easy and inexpensive options for maintaining the facility. Large window spaces make the object more inviting and interesting for children by better connecting the indoor and outdoor environments and increasing the interactivity between the two environments.

The one storey building is covered with concrete slabs, a truss steel structure and sandwich panel. In this way, the removal of rainwater is easier and the best possible waterproofing of the terrace is achieved, increasing the longevity and well-being of the building.

As in the school building, the interior floor with be covered in gres tiles and the wall will be white plastered. The hallway will be painted with plastic paint and the exterior plastering of the building will be graffiato. It is also foreseen the design of the landscape areas around the buildings and the establishment of the water drainage system of the yard. All facilities will be equipped with heating system and all windows are double glazed for thermal insulation effect. All the neccessary construction details are shown in the project sheets.

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