TECHNICAL SPECIFICATIONS
PANORAMIC

The designed buildings fall into Category C of importance in accordance with the regulations on quality in construction H.G. 766/21 / 1997 and Class of importance II in accordance with the regulations of the seismic design code P100 / 1-2013.

The foundations are of the general eraser type on the whole contour of the building or of the basement if it exceeds the contour of the building, made of reinforced concrete C 20/25 at the depth below the frost limit.

The resistance structure is designed with outer and inner walls made of thick reinforced concrete of 30 cm and 35 cm. The reinforced concrete floors are 20 cm thick. The concrete class used for the superstructure elements is C40 / 50 and C30-37. The aim was to eliminate the beams as much as possible in order to obtain flat surfaces inside the chambers, but where it was necessary to design beams, they were designed from reinforced concrete with sections between 30 x 35 cm and 30 x 65 cm. The reinforcement of all elements was designed with profiled reinforcement quality S500, ductility class C. The structure is calculated so as to be earthquake resistant according to the regulations in force P100 / 2013.

The central core of each building comprising the elevator shafts and the staircase will be executed at the same time with the structural exterior and interior walls, which are made of continuous monolithic reinforced concrete.

The exterior walls are poured in a continuous monolithic system of reinforced concrete type diaphragm, and where technological gaps result - parapets, sub-beams, etc facade.

The non - structural partition walls are made of the interior structure with metal profiles with width of 7.5 cm and double plated on both sides with plasterboard with a thickness of 12.5 cm each. The gypsum boards used together with the interior system of the partition walls constitute a solid, resistant and sound-absorbing package calculated and designed, approved by manufacturer (Rigips or similar). Also in the area of damp rooms - kitchens, bathrooms, bathrooms, drains, rainwater installations, sewerage, side windows, etc. the boards used will be of waterproofing type and in the areas with fire risk there will be fire resistant boards with a minimum duration of 60 minutes up to the mentioned 180 minutes in the project approved by ISU.

Especially where rigid partitions are provided, 11.5 cm thick brick walls will be made of Porotherm or Brikston brick, depending on the project.

The partition walls between the apartments will be made of brick masonry with a minimum thickness of 30 cm of Porotherm or Brikston hollow brick. In the areas with the

terrace, the floor above the floor is thermally insulated at the top with the regular layers, vapor barriers, waterproofing, thermal insulation and their protection resistant and guaranteed in weather, slopes provided by screeds and water intakes through special siphons.

Rainwater runoff from the terraces is collected and directed to the inner collecting columns, made of PP110 (polypropylene) and which accumulates water in the basement from where it is first retained in retention basins rainwater located outside the built premises of buildings and then discharged by pumping back into the urban network. Stair access to the floors, will be executed monolith simultaneously with the structure, made of reinforced concrete C 40/50 provided with a protective railing on ramps and on intermediate platforms. Through the structural design, thresholds can be provided in the residential buildings, but only between the apartment and its balconies with the role of accidental protection against the weather.

Access stairs in the building and access ramps for strollers and people with disabilities will be designed from reinforced concrete connected with regular slopes to the entrance floors of the building, where distances or space do not allow the design of access ramps from outside people with disabilities in buildings platforms will be provided - electrically operated hydraulic elevator, with an area of 1-1.2 sqm with a rise of 3-4 steps to reach the building entrance access level.

The balconies provided for the apartments will be made of reinforced concrete floor board in the console and will be waterproofed under the floor provided to be made of special ceramic tiles for the exterior and non-slip, laid with mortar on the board. The side parapets of the balconies can be made of reinforced concrete with a thickness of 15 cm and / or having the parapet parapet of the balconies made of safety glass made of two laminated sheets glued together, embedded at the bottom and provided with stiffening profile - current hand on the side upper made of stainless steel profile embedded laterally in the parapets.

The designed buildings will be shaped so that the apartments are arranged around the vertical core of the building with elevators and stairwell, this core will ensure access from the ground floor to the last living level and further to the technical floor, where the plant will be located. heating with installations related to the preparation of domestic hot water and central heating for the entire building.

The access to the technical floor will be made only on stairs from the last habitable level. No other spaces, functions or rooms are provided on the level of each floor, apart from the living ones. The buildings, in their plan, will be dimensioned in such a way that the distances from the apartments to the central access roads - elevators and vertical stairs - will be as short as possible, in a straight line, without obstacles, and the balconies of the living rooms will be designed with a depth of at least 1.5 m but not more than 2.0 m for comfort, use of space, allowing enough glazing in rooms and proper shading.

Basements will be provided with rooms calculated structurally so as to meet the requirements of ALA shelter, transformation stations if they cannot be located above ground, hydrophores and drinking water / domestic / rain / fire pump stations. These technical rooms in the basements will be provided with floor drains and / or accidentally accumulated water collection bases.

The screeds will be executed in dry regime.

Finishes in Standard apartments:

- Porcelain tile floor, glued with adhesive on the screed
- On the contour of the rooms with tiled floor the plinth will be of the same material

• Laminate flooring mounted on soundproofing foil
• The duropolymer baseboard will be mounted on the contour of the rooms in the area with parquet
• The floors are connected to the door sills or in the demarcation area, with passage and masking profiles.
• Non-slip exterior tile flooring in balconies, contour plinth of the same material
• All rooms are plastered and finished.
• Paintings: white - pearl color, with washable interior paints on the walls and ceilings in the living room, bedroom / bedrooms, bathroom, kitchen, vestibule and bathroom where appropriate.
• The access door is secured, with a frame made of solid steel profiles, minimum safety class 2, Pinum type. Sheet of the door is made of steel profile frame with bars and internal stiffeners made of non-deformable steel profiles, multipoint safety and locking systems.
• PVC windows and doors, offering a suitable combination of thermal insulation and verified state-of-the-art technology. In all apartments the exterior carpentry has a generous height and opening, in order to ensure the penetration of natural light.
• For the same reasons mentioned above, as well as due to the provision of underfloor heating and disposal Conventional radiators could lower the parapet of the exterior carpentry, the windows, but a fixed glass eye was provided at the bottom of the windows so as to ensure the security guard - ie a 90 cm parapet - consisting of masonry and fixed eye the window.
• Interior doors are doors on cellular structure with CPL, ALB foil finish with frames and window sills made of MDF, the same tone as the door leaf, ultra-resistant material to wash and shock, high-strength accessories and closures.

Apartment facilities:

• Wall - mounted toilet bowl, suspended and washbasin, white porcelain ceramic material.
• The water tank for the toilet is of the buried type delivered with the complete structure and equipment • White acrylic bathtub, shower cabin with 6 mm safety glass and Easy Clean treatment with acrylic bathtub • All bathrooms are also equipped with a large mirror above the sink
• All bathrooms and toilets are ventilated through vertical drains with absorption channels provided at the top - the upper terraces of buildings with absorption fans calculated at high absorption powers for the entire column of apartments.
• Faucets for washbasin, bathtub are single lever type, chrome, with low noise level and low chrome water consumption system provided for all types of bathrooms and toilets. Interior installations apartments

Electric:

The electrical installation is provided to be single-phase (220 V), with fuses that allow a calculated and sufficient consumption for each apartment, with fuse box for each circuit, on living rooms, with ultra-sensitive short-circuit fuses in the bathrooms. Separate circuits are provided in the safety panel for large consumers - refrigerators, washing machines and air conditioners, electric hob. It should be mentioned that only electric hob and oven are provided in the kitchens, there is no gas pipe inside the apartments.

The electrical circuit of the electric hob is doubled by a circuit provided for the hood, the hotels are provided to be connected for smoke evacuation to a vertical vein with doubled channels, the vein located in the closest corner of the room to the hood position, the connection will be made by homologated piping and at the upper part of the ventilation windows - absorption, ie on the terrace of the building a high power absorption fan will be provided.

The wall where the kitchen equipment is designed - refrigerator, sink, cooking machine, is covered with hard plasterboard on a metal frame so that these equipment can be arranged or moved according to the tenant's request, the builder will provide free the necessary connections, water - sewerage, sockets.

Where the space allowed, kitchen areas were designed open to the living room but with the possibility of closing with light walls later and where closed kitchens were designed, the partition wall from the living room can be removed by the tenant if he wishes.
The electrical installation is made of copper co-conductors in the tube, buried in the plaster. A general earthing installation has been provided. The electrical appliances (sockets, switches) are made of hard white PVC.

The outlets in the rooms were provided at the positions considered optimal according to a furniture study carried out by specialized companies, so there are grouped outlets for the worktop in the kitchens, for the workplace provided in office rooms or living rooms.

Places for central ceiling lamps have been designed in living rooms and in living rooms, circuits for wall sconces. Above the entrance to the apartments is provided the panel of electrical fuses and separately the internet connection panel through fiber optics, from which start branches wired through the walls with the data cable in each room at the sockets located and common with the circuits. The electricity meter related to the apartment is positioned in the FDCP on the ground floor in the special technical room where all the meters of the apartments in the building are grouped.

Sanitary

Each building is connected to a dedicated hydrophore pumping group to ensure the appropriate flow and pressure in the apartments and passed through a drinking water filtration and treatment station. These hydrophore chambers are located underground in special soundproof chambers, the electricity generators provided for each phase of the assembly will support the pumping groups in case of failure in the urban power supply network. The hot and cold water pipes that come from the floor distributor in the apartments are mounted buried in the screed and go on the contour of the rooms, anyway there will be no holes in the floor. The internal sewer pipes and columns are made of PP with rubber plug and gaskets. The check valves are with the ball.

The connection for the washing machine (cold water and drainage) is apparently left near the place provided by the project through the studied furniture plan, similar connections are also provided for the dishwashers suggested as location through the architectural plan The pipes of the columns are positioned in the niche of installations made of plasterboard. The cold water apartment meter is positioned on the first floor in the specially arranged technical window The thermal installations are made of PE-Xa pipe manufacturer, with distribution system with distributors - collectors having flow meters for regulation. The rooms are heated by the floor. The heating is dimensioned on the rooms to ensure the temperature according to the norms in force with thermostat on each living area and flow balancing pumps on the circuits. No individual thermal power plants are provided. The common spaces - the staircase, the floor halls and the access halls will be heated with traditional static steel radiators and vertical columns buried in plaster.

The Heating system:

each apartment is equipped with a condensing boiler, which will serve both domestic hot water consumption and underfloor heating.

Ventilation:

All bathroom and kitchen rooms have ventilation ducts - vitiated air absorption, antennas made of structure of steel profiles and plated with gypsum boards, inner pipes made of sheet metal including the connections between the channels and the ventilation grilles.

Intercom:

The apartments are equipped with video intercom.

Common spaces

The floors in the common spaces are made of granite.

Lifts:

The building is equipped with Schindler elevator or similar for 8 people. The elevators are of the latest technological generation with Class A consumer economizers, speed management system, SMS alert system at the supplier and the company maintenance, movement control automation correlated with fire or hazard detection control panel, special finishes and digital displays.

Gardens:

The apartments on the ground floor of the buildings can benefit from a garden owned.
The fence is made of a fence with a base / insulated concrete foundations and at the top wood softwoods - decorative profiles that ensure transparency.
In the garden there is a layer of topsoil of 10 - 40 cm; grass will be planted. The plant layer is continuous in extension of the vegetal layer green spaces of the ensemble so that the drainage of the rainwater will be done from the facade of the building, in the slight slope of the continuous vegetal layer towards the drain collection points
- ditches embedded at the sidewalks and then discharged into the sewerage network of the whole.

UTILITIES:

The utilities will be provided as follows:

A. Road and mooring in final solution (the portion of the road that ensures the connection with public roads)
B. 220V power supply with single-phase installed power estimated cover for apartments.
C. The internal domestic sewerage connected to the sewerage network of the ensemble.
D. Water supply from the assembly network.
E. Gas supply