BELUGA GARDEN

TECHNICAL DESCRIPTION

GENERAL OVERVIEW

DESIGN AREA

The project site is in Budapest, District XIII, in the area bounded by Népfürdő Street – Bodor Street Jakab József Street Dagály Promenade (parcel reg. no.: 25872/3), physically located at 7 Bodor Street, 1138 Budapest. This development is being realized on the eastern part of the plot connected to Jakab József Street, featuring commercial functions on part of the ground floor and residential functions on the upper floors.

The immediate surroundings of the property are characterized by a metropolitan character, with ground floor + 3-6-8 story, mixed-use, free-standing or closed-row, courtyard-style buildings; Jakab József Street mostly features newly developed properties. The planned building is designed with a flat roof, and its appearance and use of materials harmonize with its environment.

ACCESS

Vehicular traffic around the building is possible from Jakab József Street. The indoor garage is located on one half of the ground floor and on the basement level, accessible via an internal ramp opening from the direction of Jakab József Street. The ground-floor parking area is also accessible from Jakab József Street.

The car storage facility on the basement level has been designed to provide residents of the Beluga Bay mixed-use building (built under a separate investment) with the possibility of exiting by car towards Jakab József Street, through a building section classified as a separate fire compartment connected to the building's basement level.

The building is accessible to pedestrians from the Bodor Street Jakab József Street Dagály Promenade areas. It is separated from the adjacent Beluga Bay condominium by a public park soon to be implemented and operated by the District XIII Municipality, providing excellent opportunities for diverse leisure activities. The pedestrian entrance to the building is accessible from the Dagály Promenade. The building will feature 1 staircase and 2 elevators.

DESCRIPTION OF THE BUILDING AND ITS FUNCTIONS

The planned building includes an indoor garage on the basement level, shops with private entrances separate from the residential function and an indoor garage on the ground floor, and apartments on the upper floors, with a total height of basement + ground floor + 8 floors. A total of 105 apartments will be created on the upper levels. The apartments feature balconies or terraces, oriented partly toward the streets and the public park, and partly toward the courtyard.

The shops and their associated service areas have been designed as independent functional units, with independent entrances connected to the Dagály Promenade and the intersection of Bodor and Jakab József Streets, equipped with their own restrooms and cleaning rooms. Loading for the shops is provided through doors facing the ground-floor garage and the street.

LANDSCAPING CONCEPT

PUBLIC PARK

The green areas of the public park are based on the natural elevation differences of the terrain and the smart utilization of rainwater. The garden aims to provide residents with a pleasant, relaxing environment while connecting the green surfaces of the separate buildings into a unified, well-thought-out system.

The rain garden in the southern part of the park collects water from the roofs, contributing to the maintenance of the green areas, while strollers in the garden are greeted by shaded, diverse vegetation. The slopes, clusters of trees, and embankments of the area subtly soften the urban impact of the buildings for those walking in the garden and provide opportunities for relaxation. The slope is more intensely planted toward the Beluga Bay building and designed with a gentler, grassy lounging area toward the Beluga Garden development.

A sunbathing lawn connects to the green area system along the garden walkway, from where the Dagály Promenade is accessible, linking the public park with nearby buildings and creating a connection with the environment. Visual and climatic protection is provided by the perimeter rain gardens and the three-level vegetation and tree groups of the elevated, terraced terrain.

The garden’s climate protection elements the grove-like green surfaces, forest belts, and rain gardens not only provide aesthetic value but also contribute to making the local microclimate more favourable. Thus, even in an urban environment, the park offers a liveable, diverse, and cooler microclimate, providing a nature-close living space for residents.

INNER GARDEN

The goal of the inner garden is to offer residents a calming environment for everyday life. In the heart of the garden, a subtly undulating concrete landscape element adds movement to the central space, providing a varied visual experience and a pleasant resting place with seating areas designed around it.

The garden consists of evergreen “pillows”, shapely pine groups, and shade-tolerant perennials that visually "cool" the space and help let go of the rush of urban life. Part of the building is screened by outward-facing green walls with climbing plants, ensuring the garden experience is complete from every perspective.

RESIDENTIAL PARKING AND STORAGE

Parking spaces for residents are provided on two levels (ground floor and basement). For certain parking spaces, we provide the possibility of installing electric car charging, which can be requested upon personal consultation for an additional fee over the purchase price. The clear height in the indoor garage in traffic areas and parking spots is generally min. 210 cm or higher.

The size of standard parking spaces is generally 2,50x5,00 meters, area at least 12 m2.

The smaller parking spaces are "reduced" spaces, as they are smaller than standard sizes in one or both dimensions. The reduced parking spaces in the building are as follows:

- Ground Floor: P-023, P-027, P-028, P-033
- Basement: P-P25, P-P30, P-P34, P-P35, P-P40

We are also creating premium parking spaces in the project, which are larger than standard sizes in one or both dimensions, with an area of at least 14 m². The premium parking spaces in the building are:

- Basement: P-P01, P-P10

Residential storage units are located on the ground floor and basement level in various sizes to meet all needs. Some storage units are assigned to parking spaces, while others are completely independent. The storage floors are finished with cold tiling, and the walls are painted. The ceiling height of the storage units varies; in some cases, mechanical or ventilation pipes may run through them.

WASTE STORAGE

The collection of communal and selective household waste generated in the planned apartments takes place in a waste storage room opening from the corridor connected to the main entrance on the ground floor. The two shops on the ground floor have their own daily waste storage rooms.

The finish of the communal waste storage room on the ground floor is washable, with non-slip tiling on the floor and wall tiling up to the ceiling. The room is designed with a wall-mounted sink and floor drain to allow for water access and cleaning. Necessary ventilation is provided mechanically, vented above the roof.

DESCRIPTION OF BUILDING STRUCTURES AND MATERIALS

FOUNDATIONS

A watertight slab foundation will be constructed under the building, with the rising frame structure reinforced and connected (starter bars) to the slab. All wall structures and columns are situated on this watertight reinforced concrete slab.

LOAD-BEARING STRUCTURES

The rising structures consist of a monolithic or precast reinforced concrete column frame, alongside precast and monolithic reinforced concrete walls with thicknesses of 20, 25, or 30 cm. The building is braced by reinforced concrete wall structures on each level according to the structural plans.

The external wall structures are also precast or monolithic reinforced concrete. Above external doors and windows, built-in roller shutter boxes with plasterable front panels are installed. Lintels are used above openings within internal masonry wall structures.

The floor slabs on the basement and ground levels are 25 cm thick monolithic reinforced concrete with monolithic beams. From the 1st floor upwards, precast "filigree" (lattice girder) shell elements are used with on-site concrete topping, as per structural designs.

Balconies are constructed from precast reinforced concrete. Thermal bridge insulation elements are placed at the line of the facade wall to ensure the proper thermal performance of the apartments.

The building’s roof is a precast shell-element reinforced concrete slab, designed as a flat roof or green roof. The roofing consists of a PVC waterproofing membrane with gravel ballast or green roof vegetation. Drainage from the roof is handled internally, while balconies and terraces use external drainage systems.

VERTICAL CIRCULATION

The building features a single staircase made of precast reinforced concrete with a floating floor finish. Two elevators are located next to the staircase, ensuring barrier-free access to all levels of the building.

CEILING HEIGHT

In the case of apartments on floors 1–7, the general clear ceiling height is 2.67 meters. In certain utility rooms – hallways, corridors, and wet rooms – a monolithic suspended ceiling is constructed in accordance with the mechanical design; regarding the ceiling height, the values

indicated on the buyer coordination floor plans are authoritative, but a minimum clear ceiling height of 2.40 meters is guaranteed in these areas as well.

The apartments on the 8th floor are designed with an increased ceiling height, where the general clear ceiling height is 3.26 meters, thereby providing a more spacious and exclusive sense of space. In the corridors, entrance halls, and wet rooms, the ceiling height values adjusted to the mechanical designs and indicated on the buyer coordination plans are applicable, the value of which is generally 2.60 meters.

Regarding the ceiling height of the apartments, the buyer coordination plans are authoritative in all cases. The specified ceiling height values are nominal data referring to the structurally complete state, which may change slightly after the installation of the final layers.

APARTMENT SEPARATING WALLS, INFILL AND PARTITION WALLS

The apartment separating walls within the building are 20 cm thick precast solid reinforced concrete walls.

The internal partition walls are made of 10 cm thick aerated concrete masonry. For areas with increased acoustic requirements, soundproofing walls made of sand-lime bricks of appropriate thickness, or technically equivalent materials, will be.

THERMAL AND SOUND INSULATION

Facade walls are fitted with 15 cm thick thermal insulation. In the plinth area (up to at least 30 cm above the finished ground level), AUSTROTHERM XPS TOP P GK or technically equivalent insulation is used.

To prevent impact noise in intermediate floor slabs, a 5 cm thick ÖKOCELL CSEND lightweight concrete layer is applied as a floating acoustic insulation layer.

The roof slab features 12–14 cm of Bach PIR insulation, topped with AUSTROTHERM AT-N 150 tapered insulation to create the necessary slope. Vapor barriers consist of one layer of bituminous sheeting under the insulation.

DOORS, WINDOWS AND SHADING

FACADE OPENINGS

External balcony doors and windows are triple-glazed plastic (PVC) units with warm-edge spacers and center seals. On the ground floor, thermal-break aluminum frames are used. Windows with interior sills include plastic sills, while external sills are aluminum, color-matched to the window frames.

Each apartment window includes a built-in roller shutter box. The apartments come equipped with a unified aluminum roller shutter system with motorized control, color-matched to the exterior frames. Shading is integrated into the smart home system, allowing for remote control via a living room display or mobile app (with internet access). Built-in mosquito nets are included for all openable windows.

ENTRANCE DOORS

The entrance doors of the apartments opening from the internal gallery are thermally insulated plastic doors, featuring a coloured foil finish on the exterior in accordance with the architectural plans.

INTERIOR DOORS

The interior doors of the apartments are produced in uniform sizes of 75/210 cm, 90/210 cm, and 100/210 cm based on the floor plans. They are installed with a tubular chipboard core (hollow core) and a painted white or CPL foil exterior finish, selected from the project's material catalogue assortment.

FINISHES AND SURFACES

FACADE

The building facade typically features premium exterior plaster (noble plaster), with ventilated rainscreen cladding appearing on certain sections in accordance with the architectural plans.

The balcony slabs are precast elements of fair-faced concrete quality, which do not receive additional surface treatment. The walking surfaces are finished with frost-resistant tiling, featuring a uniform design throughout the building.

To separate the balconies, structures with a minimum height of 2.20 m will be installed to prevent both visibility and passage between units.

Galvanized steel picket railings will be installed on both the exterior balconies and the internal open galleries. In the staircase, a slender steel safety railing will be fitted, complete with an aesthetic surface treatment.

INTERNAL SURFACES

The floor and wall finishes for common areas are based on the architectural plans and are uniformly designed throughout the entire building.

The internal walls and ceilings of the rooms are finished with dispersion paint following professional smoothing (skim coating). In the wet rooms (bathrooms/toilets), ceramic wall tiling is applied up to ceiling height.

WATERPROOFING

Precipitation protection for the floor slabs and the roof structure is provided by PVC membrane roofing and its underlying supporting structures. For the slab above the P1 basement level and the courtyard slab above the ground floor, precipitation waterproofing is ensured by bituminous membranes, which must be extended up the exterior walls to a minimum height of 30 cm above the walking level.

Groundwater protection is provided by the watertight concrete slab foundation. A Preprufe 300R waterproofing membrane is installed beneath the staircase and elevator blocks prior to the placement of the foundation slab reinforcement. The superstructure's protection against soil moisture consists of 2 layers of bituminous insulation, extended up the exterior walls to a minimum height of 30 cm above the walking level.

The upper-floor balconies, roof terraces, and the top roof slab receive 1 layer of 2 mm thick PVC insulation.

In wet rooms, the floor structure is prepared with liquid-applied (brushed) waterproofing beneath the tiling, extended up the walls to the height required by relevant standards.

The materials and technical solutions specified in the "Description of Building Structures and Materials" chapter may be substituted, if necessary, without specific justification or prior notice with equivalent products or designs of the same technical content.

BUILDING SERVICES (MEP)

The building is a mixed-use development featuring 105 apartments and 2 commercial units, with an indoor garage located on half of the ground floor and the basement level. The mechanical service rooms serving the building are located in the basement, while the air-source heat pumps are positioned on the 8th-floor roof. Noise reduction for the machinery is provided by an acoustic barrier wall featuring aluminum louvers set in aluminum frames.

The building utilizes a two-pipe mechanical system, meaning the house operates in either heating or cooling mode. To ensure precise accounting per unit, dedicated cold/hot water and heat meters are installed for every apartment. These meters are located within the apartments above the toilets. The meters are digitally readable and summable, ensuring simple and fast data collection.

COOLING AND HEATING SYSTEM

During the design process, significant emphasis was placed on environmental protection and the efficient use of renewable energy sources. Therefore, heat pumps are installed to satisfy the heating and domestic hot water requirements of the residential building.

HEAT EMITTERS

On the residential levels, ceiling heating and cooling is installed using an active concrete system, with the option to place supplementary wall-mounted fan-coil units in the rooms. Underfloor heating is provided in the bathrooms, supplemented by an electric towel radiator. During the heating season, underfloor heating is the primary emitter system; during the cooling season, the automated control system excludes the underfloor heating circuit.

A mixed cooling circuit is designed for the apartments' cooling system. This configuration allows for the optimization of system operation under extreme conditions (e.g., heatwaves, high humidity, etc.) via individual control per apartment, while also ensuring the proper functioning of the supplementary fan-coils.

Provisions for supplementary fan-coils are made in the living room and every bedroom. These allow user demands to be met more quickly or during extreme outdoor temperatures. Supplementary fan-coil units can be requested for an additional fee over the purchase price, subject to personal consultation.

CONTROL SYSTEM

From the user side, the system can be regulated via a controller belonging to the smart home system. We provide the possibility of room-by-room regulation for every apartment. Thermostats are pre-programmable and can be accessed remotely via the internet. Based on humidity and internal temperature, the thermostats can automatically disable room cooling to prevent condensation on the ceiling. The operation of the fan-coil system is also integrated into the smart home system.

Due to the ceiling cooling/heating system, pipes run within the apartment ceilings. Therefore, when drilling or fixing objects into the ceiling, the rules of the user manual must be followed, and the use of a thermal imaging camera is required**!**

VENTILATION

INTERNAL SPACES

Internal spaces without openable windows are equipped with local exhaust fans operated by light switches and equipped with a run-on timer. Exhaust fans in wet rooms also feature humidity sensors, switching on automatically if necessary to ensure proper air exchange. The built-in wall or ceiling fans include integrated non-return valves.

KITCHEN HOODS

Provisions are made for kitchen extractor hoods above stoves, with exhaust air discharged above the roof through a collective duct

When installing the kitchen, attention must be paid to the hood's performance relative to the distance from the connection point. Only kitchen hoods equipped with a rubber-seated non-return valve may be installed! A maximum air volume of 200 m^3/h at 200 Pa pressure may be extracted per kitchen hood.

HUMIDITY-CONTROLLED AIR INLENTS

Humidity-controlled air inlets are installed on the facade windows of the apartments. These regulate airflow based on the relative humidity of the indoor air, ensuring ventilation after high-moisture activities by automatically opening and closing the air-permeable slats.

ELECTRICITY

The apartments, shops, common areas, and fire safety mechanical systems will be equipped with separate consumption meters. To maximize energy efficiency, the heat pumps operate on a network equipped with a dedicated **H-tariff meter** (subsidized heating tariff).

ENERGY RATING

Based on its aggregated energy characteristics, the building complies with the requirements for Nearly Zero-Energy Buildings (NZEB).

LIGHTNING AND OUTLETS

APARTMENTS

Central light fixtures are positioned in the precast slabs according to the electrical plans, in quantities appropriate for the room size. As supplementary lighting, at least one cabinet lighting outlet is provided in the living room and bedrooms, led out from the ceiling at the base of the partition wall; this can also function as decorative lighting.

In the hallways and bathrooms, suspended ceilings are installed, allowing for flexible configuration of light outlets. In addition to the ceiling outlet, bathrooms include a wall-mounted fixture outlet above the washbasins.

Outlets are provided for both washing machines and dryers. In the kitchens, "floating" (flexible) outlets are designed for the dishwasher, oven, microwave, and refrigerator to allow for versatile furnishing, plus one additional spare outlet. The electric stove must be connected directly by a qualified electrician. Power outlets for small kitchen appliances are provided, which can be flexibly positioned by residents after handover according to the individual kitchen layout; no fixed over-counter sockets are pre-installed. Provisions for kitchen task lighting are also included.

One television connection point is provided per room. The apartments include conduit pre-piping for an alarm system, which covers the empty conduits for a door opening sensor at the entrance, the alarm control panel, and one motion sensor in the hallway. We recommend installing any further security equipment using wireless technology.

An outlet is provided in the hallway for the service provider’s modem. The TV and internet outlets in the rooms and living room are wired from this central point. Depending on their size, balconies feature one or more internally switched outdoor lights and at least one external socket.

The standard height for sockets is 40 cm, while the center height for switches is 120 cm from the floor. Sockets are generally grouped horizontally, and switches vertically. Any deviations (e.g., in bathrooms) are specified in the buyer coordination drawings.

Individual electrical plans for the apartments are detailed in the buyer coordination plans, which serve as the basis for the final construction of each unit.

SMART HOME SYSTEM

The apartments feature an integrated smart home system, which allows for the regulation of the ceiling heating-cooling and underfloor heating via in-room displays or remote mobile access, with room-by-room control.

The system includes data from the apartment's utility meters, allowing everyday consumption to be monitored and usage history to be viewed up to one year back.

The displays feature intercom integration, which controls the opening of common staircase entrance doors during calls, as well as magnetic card and/or code-based door opening and remote access via mobile phone.

The built-in motorized roller shutters are standard accessories and can be controlled through both the central display and the mobile application.

APARMENTS FIT-OUT

FINISHES

Entrance Hall, Living-Dining-Kitchen: An "aquastop" (water-resistant) laminate flooring with a Class 33 wear resistance rating will be installed in the entrance hall and the living-dining-kitchen area, complete with color-matched skirting boards.

Rooms: Laminate flooring with a minimum Class 32 wear resistance rating and color-matched skirting boards will be installed in the bedrooms.

Wet Rooms: High-quality wall tiling and floor coverings with a minimum size of 30x60 cm will be used in bathrooms and toilets.

The layout and distribution of all finishes are strictly executed according to the Buyer Coordination Regulations.

SANITARY WARE

Wall-hung (cantilevered) WC with a built-in concealed cistern.

Ceramic washbasin and hand basin – as per architectural plans.

Surface-mounted stainless-steel washbasin (and where applicable, hand basin) faucets – as per architectural plans.

Ergonomic bathtub (170x70 cm) – as per architectural plans.

Surface-mounted stainless steel bath mixer tap – as per architectural plans.

Built-in walk-in shower with curb and glass shower screen – as per architectural plans.

Surface-mounted stainless steel thermostatic shower mixer with rain shower head and concealed in-wall piping – as per architectural plans.

WARRANTY, MAINTENANCE

WARRANTY

We undertake a full 3-year warranty and a 10-year statutory guarantee (implied warranty) as defined by legislation for the property.

Any modification performed in the apartment following handover—especially the modification of finishes, sanitary ware, mechanical or electrical outlets—entails the automatic termination of the warranty regarding the affected building structures and installed materials.

This extends particularly to the following structures and systems:

- water and sewage pipes, mechanical outlets, and connections,
- floor structure, waterproofing, and finishes,
- partition walls and their associated surfaces,
- built-in sanitary ware and their fittings,
- and the basic electrical installation, if affected by demolition or re-installation.

In case of modification or tampering with any of these structures, the developer assumes no responsibility for leaks, cracks, operational faults, or other damages appearing later. In the event of potential later problems, the developer will specifically examine whether the fault originates from the original construction or the subsequent modification.

MAINTENANCE

The owner is obliged to allow and tolerate that the representative of the community may enter the property in private ownership at an appropriate time, without unnecessary disturbance to the owner or resident, for the purpose of necessary inspection related to building parts and equipment in common ownership, troubleshooting required within the private property in case of extraordinary damage or emergency, as well as for performing maintenance work.

iDOM Házépítő Kft. reserves the right to deviate from this Technical Description during implementation and to install or use other materials and products of the same quality instead of the materials and products listed in the description.

Only first-class materials are used for the construction of the Condominium, and only first-class work is accepted from the contractor.

This technical description is effective from 05.03.2026. We reserve the right to change the technical content.

CONTACT DURING CONSTRUCTION:

Central Sales: +36 30 082 0187