TECHNICAL DESCRIPTION RESIDENCE - OFFICE

This technical description describes general design and implementation principles, as well as the general outlines of the systems and materials to be used.

Any architectural materials, kitchen and bathroom cabinets, carpentry and doors, and all other materials used in the visuals do not constitute the basis in terms of brand, design, color, and model. The Company reserves the right to make any changes to the technical description in case of technical and administrative requirements.

1.CONSTRUCTION

Support structure: The structural system will comply with the latest 'Earthquake Regulations', consisting of conventional reinforced concrete shear wall and column system, and the foundation will be a radial foundation system. Ready-mixed concrete and ribbed reinforced concrete steel complying with TSE will be used in reinforced concrete works.

Soil investigations based on drilling will be used in static calculations.

If deemed necessary by the geotechnical consultant beneath the building foundations, ground improvement methods will be implemented in accordance with the project and specifications (such as jet-grouting / bored pile system, etc.).

- **External facade:** The thermal insulation provided by the external facade will be implemented together with the cladding material in accordance with the insulation system and its project.
- **Interior wall:** The interior walls will be made of perforated brick, plaster over gas concrete, or materials such as gypsum board determined according to the architectural project.
- **Roof:** A terrace roof system will be constructed on the block roof in accordance with the project and specifications. Thermal and waterproofing insulation will also be applied on terrace roofs in compliance with the project and specifications.
- Joineries: The joineries will be manufactured from aluminum profiles compliant with DIN 1725-1748-17615 and TS 825 standards. Maximum utilization of daylight will be aimed for during the design process. 'Thermally insulated glass' or equivalent branded 'climate-controlled' glass will be used in the window glazing.

Thermal, water, and sound insulation:

• The building foundation and basement floors will be waterproofed according to their respective projects. (Materials: Soprema, BTM, BASF, Sika, and equivalents)

- Where deemed necessary based on the heat loss and gains indicated in the calculations and reports, thermal insulation will be applied to the floors and walls at the required thickness.
- Thermal and waterproofing insulation will be applied on the block roof in accordance with the project specifications.
- Waterproofing will be applied in all wet areas.
- In spaces where there are hydrophore and water tanks, sound insulation will be carried out as required by regulations.
- Sound insulation material will be used in the floors in non-wet areas within the residence-office premises for sound insulation.
- External facades will be applied with cladding material in accordance with the insulation system that provides thermal insulation.
- In the project, necessary measures will be taken in accordance with regulations and specifications in the areas required based on the heat loss and gains as indicated in the calculations and reports between each independent unit and each floor.

Sound insulation will be carried out between each independent unit in accordance with the project and specifications based on noise measurements as indicated in the calculations and reports.

2. RESIDENCE - OFFICE INTERIORS

Doors: Residence – Office entrance door : A steel door will be used in accordance with the project and design Interior doors : There will be wooden framed and trimmed doors with appropriate covering in accordance with the design. The covering type is either wooden or lacquered covering within the framework of architectural design principles. Sliding doors or wall-mounted sliding doors may be implemented in necessary areas such as kitchen, bathroom, or multi-purpose areas according to the interior design of the Project. Entrance Hall: Floor covering : In 1+1 residence-office units, laminate flooring or ceramic tiles will be used, while in other residence-office types, firstclass ceramic tiles will be used. Water-based paint will be applied over plaster. Wall covering : Ceiling covering: Water-based ceiling paint will be applied over plaster. Cabinets : In all residence-office units, a closed vestibule wardrobecloakroom cabinet will be installed in the entrance hall.

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Residence - Office Master Room:

	Floor covering :	First-class laminate flooring will be installed.
	Wall covering:	Water-based paint will be applied over plaster, and wallpaper will be applied in areas suitable for the design.
	Ceiling covering:	Water-based ceiling paint will be applied over plaster.
Residence - Off	ice Rooms:	
	Floor covering:	First-class laminate flooring will be installed.
	Wall covering:	Water-based paint will be applied over plaster.
	Ceiling covering:	Water-based ceiling paint will be applied over plaster.
		Wardrobes will be provided where necessary according to the design. A built-in safe will be installed. Necessary measures will be taken for B.A/Steel for installation.
Kitchen:		
	Floor covering :	In open kitchen residence-office units, the kitchen floor covering will be laminate flooring, while in other office types, first-class ceramic tiles will be used.
	Wall covering :	Plaster will be coated with water-based paint, suitable material will be used for the countertop design.
	Ceiling covering :	Water-based ceiling paint will be applied over plaster. Gypsum board suspended ceilings will be installed where necessary.
	Cabinets :	According to the project, the body will be made of melamine-coated chipboard. Solid covers will be PVC membrane or lacquer coating on MDF. Glass covers and countertops will be made from suitable materials according to the design.
	Fixture :	First-class fixtures will be used.
	Sink :	Stainless steel sink with 1 or 1.5 bowls and drainer will be used.
	White appliances:	In all residence-office units, energy-efficient built-in dishwasher, electric built-in hob, built-in oven, built-in refrigerator with hood installation will be delivered.

REST ROOM:		
	Floor covering	: Will be first-class ceramic
	Wall covering	: Will be first-class tiles.
	Ceiling covering	: Water-based paint will be applied over plaster.
	Bathroom cabinet	: The bathroom cabinet will be made of MDF with wood, lacquer, or PVC membrane coating, equipped with a mirror.
	Fixture	: First-class fixtures will be used
	Sanitaryware:	: First-class sanitary ware will be used.
	Bath/Shower Trays	: A tempered glass shower cabin and walk-in shower will be installed. (A first-class bathtub and/or shower tray will be provided.) A tempered glass shower cabin or walk-in shower will be
Balconies:		installed.
	Floor covering	: First-class ceramic tiles. (Material: Ege Ceramics)
	Wall covering	: Silicone-based or similar exterior paint will be applied.
	Ceiling covering	: Silicone-based or similar exterior paint will be applied.
	Railing:	: According to the design, semi-tempered laminated glass, aluminum, or iron louver railings will be installed.

3. ELECTRICAL INSTALLATION

High & Medium Voltage Installation:

- Grounding systems will be installed in all buildings.
- Lightning protection systems will be installed according to the project.
- Residual current circuit breakers (RCCBs) will be installed in panels to protect human life.
- A transformer station will be established to meet energy needs.
- All electrical sockets within the residence-office premises will be of the "child-proof" type. USB sockets will be installed in the master room, kitchen, and other rooms.
- Telephone/data and TV sockets will be installed in the master room and all rooms within the residence-office premises.

- There will be an adequate number of electrical sockets in kitchens and WC areas.
- First-class domestic lighting fixtures will be installed in the entrance hall, hallway, kitchen, WC, and balconies.
- In the building's corridors, staircases, and stairwell (fire) corridors, as needed (at least one), rechargeable "Emergency Lighting" will be installed.
- Energy-efficient fixtures will be used for outdoor lighting.
- A CCTV camera security system will be installed in storage corridors.
- Television system: A central 'Headend' system will be installed for satellite TV broadcasts. Each residence-office will receive 40 analog channels + Digiturk + D-Smart + 20 digital channel packages. The residence-office owner can subscribe to Digiturk or D-Smart, and through a decoder (which can be connected to each TV socket), they can directly watch analog and digital broadcasts. The number of digital channels may vary depending on the selected packages. The system will be expandable to accommodate new channels and encrypted channels by acquiring new packages.

Telephone and internet system: Each room will have telephone and internet access sockets provided from the same outlet to ensure telephone and internet access. Fiber infrastructure cables will be brought to the weak current box inside the residence-office premises. From there, distribution to the rooms will be carried out using Cat6 cables.

- Alarm System Infrastructure: Infrastructure cabling for the alarm system will be installed to communicate with the block security room next to the weak current box inside the residence-office premises. Apart from this, the field equipment such as the central system, detectors, magnetic contacts, cameras, internal sirens, etc., will be provided by the residence-office owner in wireless mode.
- Backup power system: In case of power outages, generators will be installed to supply energy for all residences, road perimeter lighting, block entrances, building water and fire reservoir pumps, elevators, intercom systems, all types of fire alarm equipment and panels, staircases and floor corridors, central heating, hot water systems, and indoor parking lots.

Intercom system:

- A color video digital intercom system will be installed in residenceoffice units, allowing communication with the block entrance door and controlling the door automation.
- Security can be reached from all residence-office units and the elevator, and when necessary, security can also call the residence-office units.
- A digital doorbell panel will be used at the block entrance doors. Through this panel, residence-office units can be called from the block entrances. Additionally, it will be possible to open the block entrance door without using a key by using a code that residenceoffice owners can use
- **Elevators:** In accordance with the project, elevators meeting the required specifications and standards of TSE and CE, equipped with ventilation, security alarms, and capable of communication with the security room from the cabin in emergencies, will be provided and installed. The elevators will be powered by UPS.
- Automatic Access System: At the parking entrance, a license plate recognition or tag-based automatic access system will be installed.

Electric Vehicle Charging System Infrastructure:

In accordance with the project, infrastructure for an electric vehicle charging station system will be provided in the parking areas, which can be supplied upon request to meet the charging needs of electric vehicles

4. MECHANICAL INSTALLATION

Sanitary installations :

• Clean Water Plumbing: Potable water will be supplied from the city's main distribution network. Cold water will be pressurized by hydrofor from concrete reservoirs built as reserve, and then delivered to the entrances of the residence-office through cold water meters. Each independent unit can subscribe separately to the water administration. For the transmission of cold water, plastic-based pipes will be used in the main shafts, while PPRC Type 3 pipes will be used inside the residence-offices.

- Waste Water Plumbing: TSE-certified fire-resistant B1 class PVCbased silent pipes and fittings will be used in shafts and basement floor collections, and they will be connected to the main sewer network.
- Hot Water Plumbing: Central boilers will provide 24-hour hot water supply in residence-office units. Hot water meters with "M-Bus" operating interface will be installed in plumbing shafts dedicated to each independent unit. Through these meters, the hot water consumption of each independent unit will be measured separately and billed monthly.
- **Domestic Water Storage:** A water reservoir will be constructed in the building as a reserve.
- Heating Installation: Energy-efficient condensing boilers will be used with necessary capacity based on heat loss calculations. Heating for each residence-office unit will be provided from the central system using these gas-fueled boilers. Electromechanical or ultrasonic heat meters (calorimeters) with an "M-Bus" operating interface will be installed in plumbing shafts dedicated to each independent unit. Through these meters, the energy consumption of the respective independent unit and the portion allocated from common areas will be measured and billed.

Heating in residence-office units will be done through underfloor heating. Each room will be controlled with a thermostat.

- **Cooling Installation** : Air conditioning units with the necessary capacity will be used based on heat gain calculations. The cooling system will be implemented with a central Variable Refrigerant Volume (VRV) system. Sufficient capacity indoor units will be installed in the residence-office master rooms and rooms for each residence-office unit to provide cooling. The selection of windows will be based on heat loss and gain calculations, considering factors such as the heat transfer coefficient (U value) and shading coefficient.
- Natural Gas Installation: A natural gas installation will be made for the central heating boiler system. A solenoid value on the natural gas installation will shut off the gas line upon receiving a leak signal from the gas alarm device. Additionally, there will be an earthquake shut-off value. Cooking stoves in kitchens will be electric and will not operate with natural gas.
- **Ventilation Installation:** Fresh air will be provided to the common areas of the building, such as corridors and hallways.

Rainwater Plumbing: Rainwater collected from the roofs through PVC pipes will be filtered through a coarse filter and collected in a reinforced concrete tank in the basement. It will be pressurized with a hydrophore and used for garden irrigation.

5. FIRE SAFETY EQUIPMENT

- In accordance with the Turkish Fire Protection Regulation, fire alarm, emergency announcement, and extinguishing systems will be installed in all common areas.
- Fire cabinets and a fire extinguishing system (sprinklers) will be installed throughout the building.
- Fire extinguishing cabinets, fire alarm buttons, and fire alarm detectors will be installed in the floor corridors.
- Optical smoke detectors as shown in the project and heat rise detectors in kitchens will be installed in residence-office interiors.
- The natural gas installation in central heating areas will be equipped with solenoid valves that automatically shut off gas in case of earthquake or gas leakage detection.
- Carbon monoxide (CO) detectors and fire alarm buttons, fire cabinets, and a fire extinguishing system (sprinklers) will be installed in locations indicated in the fire alarm system project in closed parking lots.
- "Exit" luminaires indicating escape routes will be installed at all fire staircases, exit doors, elevator lobbies, common areas, and general spaces.
- "Emergency Lighting" luminaires will be designed to light up automatically in case of power outage without any control.
- Each staircase and fire elevator will be pressurized centrally, and smoke extraction will be conducted from every floor corridor.

6. PARKING LOT

- The closed parking areas will be allocated to residence-offices according to the Management Plan, in line with the specified number for each independent unit.
- Direct pedestrian and disabled access to all residence-offices will be provided from the closed parking areas via elevators and/or stairs without the need to exit onto the ground level.
- Mechanical exhaust ventilation and smoke evacuation systems are available in the closed parking section. Gas detection (carbon monoxide) and warning systems will be installed in specific areas of the closed parking.

- Epoxy application will be applied on the flooring.
- Space will be allocated for bicycles, motorcycles, scooters, etc.

7. STORAGE SPACES ASSIGNED TO INDEPENDENT SECTIONS

- Each residence-office will be allocated a storage area in the basement floor according to the architectural project.
- Security cameras will be installed in the storage corridors.
- Ventilation system will be provided.

8. LANDSCAPE AND ENVIRONMENTAL DESIGN

- Areas outside the building layout will be planned as recreational, green, hard landscape, and social amenities areas.
- Social facilities and common areas will be designed according to the architectural concept.
- General landscaping will be carried out according to the project, including automatic and drip irrigation systems.
- The lighting and landscaping of green areas and pedestrian paths, as well as the design of common gardens, will be done in accordance with the project and the Management Plan.
- Infrastructure for vehicle and pedestrian pathways, including sewage, water, and drainage systems, will be established.

9. COMMON AREAS OF THE BUILDING

- Staircases, main entrances, and external stairs will be made of natural stone, marble, artificial marble, and/or granite.
- The fire escape staircase will be precast, with iron railing.
- Locked, personalized mailboxes will be provided for all offices in the block entrance halls.
- Concierge service will be available at the building entrances. The entrance barrier will be electronic.
- A camera security system will be installed (building entrances, parking entrance).

10. COMMUNITY FACILITIES

- The design of social facilities will evolve as the architectural project matures.
- Rest areas and social spaces will be constructed on the top floor of the building.