Magdelena Quarter

Class A Offices

Powered by 100% renewable electricity

LEED Platinum certificate

Energy efficiency class compliant with NZEB standards

ANTONIJAS 21

VENTILATION

Mechanical supply and exhaust ventilation system are powered by three FläktGroup air handling units (AHU), each equipped with heat recovery elements (heat exchangers) and cooling sections. Supply/exhaust ventilation system provides fresh air at a rate of 1.8 l/s per m2. The AHUs are located indoors, protected from external weather conditions. For tenant premises, the units have a dehumidification function. When the air humidity exceeds 70%, the system dehumidifies it down to 50%. All HVAC systems are connected to BMS.

HEATING

Heat supply is provided by a district (centralised) heating system with an individual heat unit. Heating within the premises is supplied by Purmo radiators. Snow and ice melting system at the main entrance doors.

COOLING

Cooling of the premises is provided by Halton chilled beams and the cooling sections of the air handling units. Cooling source consists of water-cooled Trane chillers and ThermoKey dry coolers, ensuring the possibility to implement a “free-cooling” system, which provides cooling of buildings in the summertime by using low-temperature nighttime air. The installed mechanical systems (ventilation and cooling) supports the planning of up to one workplace per every 6 m2. Installed heating, ventilation and cooling system maintains and indoor temperature range of 20–24 °C. A designated shaft for installation of SPLIT unit pipes provides tenants with the option to install SPLIT system cooling.

ACCESS CONTROL SYSTEM

Main entrance doors of the building, as well as doors to the tenant premises, are equipped with an access control system. Entrance doors to the tenant’s premises are glazed in an aluminium frame and feature a contactless door opening mechanism.

VIDEO SURVEILLANCE

Video surveillance cameras have been installed in the common-use areas and around the building’s exterior to monitor and ensure public safety. Cameras are monitored 24/7 by an on-site security post.

FIRE SAFETY SYSTEMS

Automatic fire detection and alarm system, as well as public announcement system, are installed in the building. Each floor and tenant premises are built as a separate fire-proof compartments. For evacuation, fire-protected staircases are equipped with smoke discharge systems. Fixed internal firefighting hose system is installed in the building.

INTERCOM SYSTEM

From the intercom system it is possible to call the office from the entrance doors of the office and from the entrance of the building.

WATER SUPPLY AND SEWERAGE

Water supply is provided from the municipal network. The building’s household sewerage is connected to the city’s household sewerage network. Water heating is supplied by an individual heat unit. Water leak sensors are installed in technical rooms.

POWER SUPPLY

Reactive power compensation units are installed on the main distribution boards. A central battery system (CBS) and generator provide uninterrupted power supply to critical building systems, including automatic fire detection and alarm system, public announcement system, smoke discharge systems, and other fire safety-related systems.

TELECOMMUNICATIONS

Fibre-optic internet connections from communication providers are available.

LIFTS

Three high-speed Schindler lifts are installed in the building, including one with a taller ceiling designed for larger load dimensions. Each lift has a maximum capacity of 13 persons and a maximum lifting capacity of 1,000 kg. All lifts are equipped with an access control system.

WINDOWS

Window glazing is adapted to the building’s sun orientation, providing enhanced solar protection. The windows and glazed façade achieve a sound insulation performance of R’w (C; Ctr) = 45 (–1; –6) dB. The windows are tilt-and-turn, and some are fully openable.

RAISED FLOORS

Dismountable raised access floor system Lindner type NORTEC L 36 x M with fibre-reinforced calcium sulphate panels. Floor plate dimensions: 600 x 600 x 36 mm. Permissible point load on each panel is 3 kN, with an overall load-bearing capacity of 3kN/m2. If necessary, it is possible to locally increase the floor load-bearing capacity.

FLEXIBLE PLANNING

The building offers flexible planning solutions, with a ceiling height of 3.10 m. Water and sewage risers are provided on each floor, with additional risers located along the building perimeter. The centrally positioned building core allows natural daylight access from all sides, while the absence of restrictive load-bearing structures enables a highly flexible and adaptable office layout.

WC AND SHOWERS

On each floor, WC blocks are fully fitted out. Each floor includes a shower and toilet for people with special needs. All sanitary facilities are equipped with high-quality Laufen and Grohe fittings.

LIGHTS

Trilux light fixtures are installed in office areas, providing an illuminance level of 500 lx at workstations. The lighting efficiency is 173 lm/W, with a glare rating of UGR < 19. In transit areas, lighting provides 300 lx.
The guaranteed availability of light fixtures is 10 years (until 2035), and the guaranteed availability of spare parts is 15 years (until 2040). All light fixtures are equipped with DALI drivers and feature white casings. The colour temperature of the light sources is 4000 K.

FACADE

The building structure is based on prefabricated reinforced concrete elements, produced in a closed environment to ensure consistent conditions and a controlled setting, preventing any impact on quality. Pigmented concrete is used to provide long-term durability.

project by VASTINT