

DESCRIPTION AND HISTORY OF THE BUILDING

The present-day building at Dlouhá 39/727/I, on the corner of Dlouhá and Hradební streets, with its rear wing facing Haštalská street, was built at the end of the 1920s on the site of two older buildings.

The first mentions of these two older buildings date from 1405 and 1409. At that time Dlouhá street, on which the then-divided land plots are sited, was one of the Old Town's busiest arteries, with one of the city gates standing right next to the corner house. In 1689 the two buildings were gutted by fire; they were rebuilt at the beginning of the 18th century (1710 and 1728). At the end of the 1920s they were torn down, and a large new building erected in their place according to designs from 1927-1929. Of the original Baroque buildings, only the facade of the two-storey corner house facing Dlouhá street was retained.

The new building has the nature of a large city palace with two basements, which largely housed a musical theatre (on the plans it is titled the "Grand Operetta), a commercial ground floor with an arcade, and four to seven above-ground storeys with flats and offices. The type of construction used was very modern for its time – a steel skeleton frame that allowed a large degree of flexibility in the layout of apartments, and also made it easy to locate a large room in the basement of the six-storey building.

The building has an E-shaped ground plan, turned to the west, towards the interior of the block. The ground floor of the building is entirely commercial. The most significant space here is the arcade with two inner atria, covered in a light glazed steel construction. It connects Dlouhá, Hradební and Haštalská streets. The entrances to all five staircases to the higher floors lead off the arcade, as do the theatre area and the auxiliary basement entrances. The two-storey basement covers the whole area of the site. It is used mostly for the theatre, which has an auditorium that runs parallel to Hradební street. Only a small area is used for the technical facilities for the building. The arrangement of the residential floors differs from the layouts that were usual for Prague apartment buildings of the time, as a result of the unusual size and ground plan of the building. This concerns both the overall layout and the layout of individual apartments. There is also a significant amount of office space.

The style of the building is more conservative than its modern construction. From the outside, the building is optically divided into four parts. In the corner area, the facade is a relatively faithful copy of the original Baroque building's facade, although it is raised one storey above the string cornice and the mansard. The original Baroque portal and a sculpture of an angel (now stored in a depository) have also been preserved. The other parts of the building – the tower section in Dlouhá street, crowned with a dynamically-shaped superstructure that originally housed a gym, the extensive facade on Hradební street and the broken facade facing Haštalská street – are designed in contemporary style, although not in the spirit of the most cutting-edge trends of the architecture of the time. As with the interiors, the design is more influenced by trends from the beginning of the century. The facade of the building in historical style is stuccoed, while the rest of the facade has coloured hard plaster with socles of artificial stone or brick bands. The balconies have decorative iron railings.

The public spaces inside the building (the staircases and the arcade) use a large amount of terrazzo and artificial stone with a worked surface on the floors and walls, while the ceilings have decorative stucco elements. The shop window frames and entrance doors in the arcade are largely metal – brass or steel. The staircases areas have a single style of balustrade and apartment door. There is also some remarkable design and craftsmanship inside the

This document has been created to serve as a reference for Terminus Technicus.

No part of it may be published or otherwise circulated without prior written permission of the copyright holder(s).

Tento dokument byl vytvořen jako reference agentury Terminus Technicus.

Žádná z jeho částí nesmí být publikována nebo jinak šířena bez předchozího souhlasu držitele autorských práv.

apartments in the grander part of the building that faces Dlouhá street.

The basic character of the building has been preserved until the present, despite degradation in the form of modern interventions such as the partial replacement of cast floors with ceramic paving, the artificial stone wall coatings, the cement-sprayed facades and so on.

PROPOSED RENOVATION

The chief goal of the proposed renovation is to restore the architectural qualities of the building and create high-quality apartments with technical facilities and layouts that meet modern-day requirements.

If this goal is to be met, then it is also essential that the existing technical facilities be almost completely replaced and fundamentally expanded.

Layouts

The functional use of the ground floor and below-ground floors (the commercial area, theatre and technical facilities) will remain broadly preserved, but on the upper floors there will be a marked change towards the use of the space for apartments.

Currently there is a relatively high proportion of office space, and it is also freely mixed with apartments. After renovation, from the first floor up, non-apartment space will be preserved only on the first, second and sixth floors of the wing facing Haštalská street (the D/E staircase area, offices) and the first floor facing Hradební street (the B staircase, the theatre facilities). New apartments will also be created in the attics, under the roof of the corner building (staircase A) and of the wing facing Hradební street (sections B and C). In all, the building will have 59 apartments after renovation.

The flats and commercial areas will be finished off to the standard of gross floor area. Spatially, they will be demarcated by load-bearing, perimeter and party walls, while the technical installations will be brought to individual connection points. The interior arrangements and the interior distributions will be dealt with individually by the various owners and tenants, with the use of the variability given by the skeleton construction system. The only places where the disposition of the flats is firmly fixed are the historically-valuable spaces on the 2nd and 5th floor of section A.

The operational centre for the flats and the whole building is the reception area on the ground floor. As part of the common space, cellar cubicles and waste storage are also proposed. As part of the renovation of the building, the current lifts in staircases B, C, and D, inadequate both in terms of technology and size, will be replaced by new ones that meet current requirements. The cabin dimensions will be 1100 x 1400 mm (B and D) and 950 x 1100 mm (C). In the stairwell of staircase A there is a modern lift with a cabin that is 950 x 1100 mm. Lifts A and C are wheelchair-accessible.

An important part of the building's facilities will be the newly-built garages in the ground floor and basement. Currently, the building offers no parking capacity with the exception of the individual garages that are accessible from Haštalská street. As part of the renovations, a garage for 33 cars with a ground plan of 2.15 x 5.15 m and a maximum height of 1.5 (10 spaces) or 1.9 m will be created. The transfer space of the automatic system will be on the ground floor, with the entrance from Hradební street, and a direct entrance from the reception. Near the entrance to the mass garages, an individual garage with a capacity of two places is also proposed.

This document has been created to serve as a reference for Terminus Technicus.

No part of it may be published or otherwise circulated without prior written permission of the copyright holder(s).

Tento dokument byl vytvořen jako reference agentury Terminus Technicus.

Žádná z jeho částí nesmí být publikována nebo jinak šířena bez předchozího souhlasu držitele autorských práv.

Architectural design

The interior public space and the common areas of the building will be renovated with an emphasis on the renewal of their original artistic qualities and materials. The preserved elements (doors, balustrades etc.) will be repaired wherever possible. Unsuitable elements and surface finishes, such as the floor tiles in the arcade and on the staircases, and the entrance doors, which are the result of poorly-conceived modern-day interventions, will be replaced by new ones, created in line with the original items that have been preserved. Elements that complement the original interior will have a contemporary design.

During alterations to the facades, emphasis will be put on renovation of the original state. The facade of the corner building and the neighbouring part, facing Dlouhá street, was recently renovated and now only smaller interventions will be made, consisting above all of new finishes, as with the court facades. Unsuitable surface finishes will be removed from the facade that faces Hradební and Haštalská street, and renovated overall. A repair of all windows and window frames will be carried out, and all plumbing and locksmith elements on the facades, elements in bad condition will be replaced. The existing technical superstructures on the roof (the engine rooms of lifts and so on) will be removed. The alterations arising from the creation of attic flats are designed in a contemporary style, with large glass areas and an emphasis on the lightness of the construction.

Heating

Heating water shall be distributed to individual apartments, retail units, or office spaces and terminated in transfer stations. The main horizontal distribution system shall be installed on the 1st and 2nd underground levels and connected to risers in individual utility shafts. Each transfer station shall ensure mixing of heating water for the given unit/space and heating of hot utility water in a flat heat exchanger. Consumption of heating water, cold water and hot utility water shall be measured at each station. All meters shall provide remote metering functionality. For apartments with a single bathroom, a transfer station with a 40 kW heat exchanger shall be used, for apartments with multiple bath/shower rooms, 55 kW exchangers shall be used.

Retail units on the ground floor shall be vented via air-handling units. A mixing valve shall be provided at each air-handling unit heat exchanger.

Hot utility water for the theatre shall be prepared in the existing separate gas heater in the boiler room.

Heating systems in individual apartments and commercial units shall be specified by the owners/tenants. We expect the use of convector heaters, floor convectors without fans under glazed areas, or floor convectors with fans under retail units' display windows, and tubular radiators in bath/shower rooms. Underfloor heating may be used in spaces with higher thermal loss. Fan-coil units shall be recommended for office spaces.

For offices on 7th floor, section E and the apartment above, the existing heating devices connected to a new distribution system shall be used.

The reception area shall be heated by a 1.5 kW direct-heating electrical convector. The cooling system machine room on 2nd floor shall be protected against frost by a 2.5 kW direct-heating electrical convector.

Cooling

This document has been created to serve as a reference for Terminus Technicus.

No part of it may be published or otherwise circulated without prior written permission of the copyright holder(s).

Tento dokument byl vytvořen jako reference agentury Terminus Technicus.

Žádná z jeho částí nesmí být publikována nebo jinak šířena bez předchozího souhlasu držitele autorských práv.

A central cooling water source (6/12 °C) shall be provided for cooling of the retail units in the arcade and the D.2.1/D.3.1 office spaces. The source shall be installed in the new cooling system machine room on 2nd floor, next to the existing theatre machine room. Expected cooling energy consumption for the specified spaces is 115 kW. The cooling water shall be prepared in an interior cooling unit with a separate condenser. The condenser unit shall be installed on the building's roof. The cooling water shall be distributed via a hydraulic module.

The distribution network shall be terminated in a transfer terminal in each cooled unit. The terminals shall include a closing fitting and an ultrasound flow meter with a calorimetric unit to measure the cooling energy consumption.

Selection of the cooling system's end devices shall depend on the tenant in each individual space. For the retail units in the arcade, a two-pipe system is expected, with single-exchanger fan-coil units mounted on the ceiling, regulated by automated balancing combined valves. A four-pipe system is expected in the office units, with two-exchanger wall-mounted fan-coil units, regulated by automated balancing combined valves. These fan-coil units shall also serve as heating.

Cooling in selected apartments shall use circulation systems with direct evaporation of the cooling medium. A combination of a VRV (Variable Refrigerant Volume) systems and multi-split units shall be used. All devices shall be used as thermal pumps (heating or cooling mode) to enable individual heating in transitional periods. Given the varying orientation of individual cooled rooms and the expected non-concurrency of cooling requests, the expected installed output of end devices shall be as high as 130% of the output of the corresponding compressor unit.

Three VRV units shall be installed in the machine room above the A staircase on 7th floor. Depending on priorities, the output from these units shall be sufficient for the cooling systems in apartments on 5th and 6th floor, sections A, B, and C, or for the cooling of all apartments in the A section. Apartment B.8.1 shall also be connected to this machine room as it is not possible to install a multi-split unit in it.

All cooling water pipes (in the machine room, main horizontal distribution pipes and pipes in false ceilings) shall be made of copper tubing with thermal insulation. All necessary fittings shall be included in the delivery of the VRV systems.

Multi-split units shall be used in apartments on 7th floor, section B and C and the C.8.2 apartment. In these apartments, the compressor units may be installed either on the balcony, or in the installation space in the north gable wall of section C. These units could also be used for new apartments in the D section, but placing them on the balconies there is problematic. The multi-split units shall be installed individually after consulting with the apartment owners. Only preparation shall be made during the refurbishment.

The interior fan units and distribution systems shall always be specified individually in keeping with owners' requirements. Wall-mounted units shall be suggested as standard. Alternatively, tube-type units installed in adjoining rooms (closet, bathroom) and/or ceiling-mounted units may be specified.

Air-handling

Commercial Spaces

As part of the refurbishment, exterior air intake ducts shall be installed and terminated in each tenant unit by a fire-safety and a closing damper. Air exhaust ducts shall be prepared in a similar fashion and terminated above the building's roof. Air-conditioning units and

This document has been created to serve as a reference for Terminus Technicus.

No part of it may be published or otherwise circulated without prior written permission of the copyright holder(s).

Tento dokument byl vytvořen jako reference agentury Terminus Technicus.

Žádná z jeho částí nesmí být publikována nebo jinak šířena bez předchozího souhlasu držitele autorských práv.

distribution elements shall be supplied by tenants. Expected air flow rates for commercial spaces are based on 5 m² of floor area per person, which corresponds to an air flow rate of 10 m³/h.m². For the 1.04 space (cafe), the air flow rate shall be 15 m³/h.m². Heat recuperation units with a minimum recuperation efficiency of 50% shall be used. Intake air shall be heated in the air-conditioning units. Commercial spaces shall be cooled by independent circulation cooling systems using fan units.

Instrumentation and Control

The building shall include an automated Building Management System (BMS) in the form of a freely programmable DDC system. The system shall be freely programmable and its modular concept shall enable it to be scalable and built in phases depending on addition of new technology into the building. All I&C systems shall be installed in three switchboards – one in the boiler room, one in the heating system machine room and one in the cooling system machine room. Regulators shall be connected to each other by a commutation line and to the central computer where required. Important operational and error messages and/or actions (cooling on/off) shall be displayed at the reception. Error messages may also be forwarded to a maintenance technician's mobile telephone.

The building is a registered heritage site. Proposed architectural designs may be affected by the requirements of the National Heritage Trust (Národní památkový ústav) and/or other institutions. The Investor hereby reserves the right to change any design or part thereof.