



# FORCKENBECKSTRASSE CONSTRUCTION PROJECT CONSTRUCTION SPECIFICATIONS AND DESCRIPTION OF AMENITIES

CONDOMINIUMS | BLOCK D | LAST UPDATED: 30/11/2017

## I. PRELIMINARY REMARKS

The construction specifications detailed below comprise major quality features for the planned construction project. We retain the right to deviate from the technical details and to replace items with ones which are either of the same or a higher standard during the actual construction process, in the detailed planning process and as a result of putting out to tender. The same applies to any changes due to official requirements, laws, legislation or administrative procedures or as a result of structural requirements as well as for reasons pertaining to the procurement of materials.

Construction is carried out in accordance with the generally recognised principles of established engineering practice. All measurements, figures and any other data stated in these construction specifications and description of amenities are subject to the relevant technical regulations concerning accuracy of size, e.g. DIN standards, insofar as nothing else is prescribed.

A residential district is to be built on a plot of land measuring approximately 46,000 m<sup>2</sup>, which includes a former allotment area, on Forckenbeckstraße 64-67, Schmargendorf (village) – located in Berlin-Wilmersdorf. The construction project has been broken down into tower blocks and comprises a surface area of roughly 90,000 m<sup>2</sup> covering 5-8 storeys plus a basement level. This construction project consists of individual buildings making up a perimeter block development, with underground parking located in the inner courtyards.

The inner courtyards can be accessed via a ring road which is linked to Forckenbeckstraße.

Block D has been designed as an ensemble of 4 individual buildings by two architect firms. Buildings D1 and D4 are set out in a north-south direction, whilst House D2 and D3 face east and west.

- Building D1 comprises 6 storeys, which are partly staggered. The 12 apartments located on any one storey can be accessed by means of two internal staircases and a central corridor. The 71 apartments within a tower block are built with either a view in one direction or as a corner apartment.
- The apartment block, Building D2, has 6 storeys and features a partly staggered design. The 6 apartments, which make up any one storey, can be accessed via a staircase built on the side of the building and a central corridor. The 35 apartments within this apartment block are built with either a view in one direction or as a corner apartment.
- House D3 comprises 6 storeys, which are partly staggered. The 7 apartments on the respective floor can be accessed via an external safety staircase and a central corridor. The 40 apartments within the tower block are built with either a view in one direction or as a corner apartment.
- Building D4 comprises 8 storeys, which are partly staggered. The 10 apartments located on any one storey can be accessed via two internal staircases and a central corridor. The 73 apartments within the tower block are built with either a view in one direction or as a corner apartment.

The tower blocks are all joined together via a basement and a joint underground car park. The basement also contains a cellar for each flat, as well as electrical rooms, areas for parking bikes and waste disposal rooms. The entrance ramp to the underground car park is located in House D4. The clear ceiling height in the apartments is as follows:

Building D1

(ground floor and respective storey approx. 2.80 m and 3.15 m on the top staggered level)

Building D2

(ground floor and respective storey approx. 2.80 m and 3.15 m on the top staggered level)

Building D3

(ground floor and respective storey approx. 2.80 m and 2.95 m on the top staggered level)

Building D4

(ground floor and respective storey approx. 2.75 m and 2.95 m on the top staggered level)

The open spaces will become recreational gardens featuring children's play areas. Insulation will be carried out in accordance with the specifications governing the German Energy Saving Ordinance (EnEV 2016). As the insulation plans cannot be altered retrospectively for technical reasons, this will also apply if new, more stringent regulations are subsequently introduced before the construction project has been given planning permission.

Soundproofing for the apartment blocks is based on the following specifications:

	Components	Requirement
Airborne sound insulation $R'_w$ [dB]	Commercial ceilings (e.g. utilisation with a LAF $\leq 80$ dB(A))	$\geq 57$
	Ceilings	$\geq 57$
	Ceiling of recreation rooms in the underground car park	$\geq 57$
	Apartment partition walls	$\geq 56$
	Front doors of apartments, leading to living space	$\geq 37$
Impact noise insulation $L'_{n,w}$ [dB]	Commercial flooring (e.g. utilisation with a LAF $\leq 80$ dB(A))	$\leq 43$
	Ceilings	$\leq 46$
	Balconies	$\leq 46$
	Flights of stairs and landings	$\leq 46$
Noise from	LAF water installations $L_{AF,max}$ in dB(A)	$\leq 30$
	LAF ventilation systems $L_{AF,max}$ in dB(A)	$\leq 30$
	Other LAF technical systems $L_{AF,max}$ in dB(A)	$\leq 30$
Airborne sound insulation against external noise $R'_{w,res}$ [dB]		DIN

There are no soundproofing specifications for the inside of apartments.



## II. UTILITIES

Heating is provided by GASAG, with whom a heating agreement has been concluded. GASAG runs a local heat distribution network and generates thermal energy by means of two combined heat and power plants (BHKW) and a condensing gas boiler. The GASAG power room is situated in House D1. Heat transfer takes place in the respective apartment tower block by means of a compact transmission station based on a storage principle, which contains heat exchangers and peripheral equipment (pumps, 3-way mixing valves etc.) for providing heating and hot running water.

Building D also has connections from the local utility companies for drink water, waste water and electricity.

The TV, radio and telephone cables have been provided by Vodafone KabelDeutschland (VKD). Trenches have been built on the plot, which help rain water to drain away.

## III. STRUCTURAL DESIGN (BUILDING SHELL)

### 1. FOUNDATION

The pit excavation and the foundation were carried out taking into account the expert report on the building ground and foundation; securing the excavation pit and foundations will be performed in accordance with certified structural engineering calculations whilst taking the groundwater level into consideration.

### 2. WATERPROOFING OF BUILDING/ EXTERIOR WALLS AND FLOORS IN THE BASEMENT

Parts of the basement floor and walls are built using non-porous concrete in areas which come into contact with the soil, or are waterproofed in accordance with the DIN standard taking into consideration the water conditions as per the expert's report on the building ground and foundation. Permeable pavement is envisaged for the underground car park as the ground-water level does not require any non-porous construction. The walls will be built using either semi-precast walls with a smooth surface and open butt joints or a formwork system and rough-shuttered surface.

### 3. EXTERNAL WALLS

The external masonry walls use calcium silicate bricks (KS) or reinforced concrete made of cast-in-situ concrete, finished parts or semi-finished parts in line with certified structural engineering taking into account fire protection and soundproofing. Thermal insulation above ground is carried out by means of certified thermal insulation and soundproofing. The buildings' walls are clad in clinker brick tiles in a pattern according to the architects' drawings. The buildings' facades are enhanced and structured by means of the apertures created by the loggias and balconies. The facades facing the inner courtyards are interspersed in part with projections and steps which enhance the spatial setting of the courtyards.

### 4. LOAD-BEARING INTERNAL WALLS

Supports and load-bearing internal walls are either built of masonry or reinforced concrete, finished parts or semi-finished parts in line with certified structure planning, taking fire prevention into account.

### 5. CEILINGS AND STAIRWELLS

The ceilings and stairwells are built of reinforced concrete made from cast-in-situ concrete, prefabricated or semi-finished products in line with

certified structure planning taking fire prevention and soundproofing requirements into account. The stairs and landings are built with the necessary components for soundproofing and acoustic decoupling.

### 6. LOGGIAS

The loggias and balconies are built of reinforced concrete made from cast-in-situ concrete, prefabricated or semi-finished products in line with certified structure planning featuring upstands in preparation for the floor structure (see Balconies).

### 7. BALCONIES / PATIOS

The balconies are thermally separated from the building or have been fully insulated where required. Generally speaking, non-porous pre-fabricated concrete featuring upstands and recesses are used for drainage purposes. A reversible spandrel-braced (wood-plastic composite) WPC is laid on top. The balconies are made secure by means of railings and balustrades in accordance with the architects' drawings. A surface comprising artificial stone faced with high-grade chippings is used for the roof terraces. The patios on the ground floor feature artificial stone faced with high-grade chippings.

Building apartments which are accessible for people with impairments was a prerequisite in line with the Berlin building regulations. Regulations for the construction of apartments equipped for the disabled are governed by DIN 18040. Accordingly, only so-called transitions without barriers with a maximum height of 2 cm are allowed for access from the terrace to the apartment (patios, balconies, loggias). The aforementioned standard contradicts other standards (DIN 18195) and the regulations governing flat roofs, which require greater upstand heights. To solve this contradiction within the existing body of standards, a special solution is carried out using the patio doors which incorporates waterproofing technology. This solution works as follows: Besides the carefully executed sealing work with a connecting frame node at the bottom, a drainage channel has been built in featuring grating, which is constructed on a gradient.

### 8. BICYCLE PARKING

Most of the cycle parking is situated in the basement and can be accessed via the underground car park; some spaces have been built on the grounds.

### 9. ROOFS

The flat roofs have been manufactured using reinforced concrete made of cast-in-situ concrete, finished or semi-finished parts in line with certified structural engineering and physical requirements, with insulation, taking into account sealants (sealing sheets or non-porous components, also as an inverted roof without a gradient) in accordance with the principles of engineering. The roofs are all subject to extensive planting. The ceiling of the underground car park is made of non-gradient, non-porous reinforced concrete. The stairwells are partly equipped with skylights to lighten up the area as well as for the purpose of acting as a roof hatch and for smoke ventilation. The roof hatches have been planned so that all areas on the roof are accessible. Corresponding ladders will be also be provided. The exterior downpipes are made of a titanium and zinc composite, the attic covers are made of titanium and zinc or of prefabricated aluminium sheets.

### 10. LIGHTWEIGHT PARTITIONS

Non-bearing walls on the respective storeys are erected using gypsum baseboards. They are planked with two layers on both sides and manufactured with cavity damping featuring mineral rock wool. Impregnated plasterboards are used in wet rooms.



Non-bearing walls located in the basements use calcium silicate brick with the exception of cellars used by the residents for storage purposes.

## 11. SUSPENDED CEILINGS

Suspended ceilings and concealed areas feature in the kitchens, toilets, bathrooms and ancillary rooms insofar as these are required because of wiring. Some of the other rooms also include concealed areas and suspended ceilings where it is deemed technically necessary. Inspection flaps are intended to be built into the ventilation systems for maintenance purposes.

## 12. PLASTERING AND FILLING

### Walls

The concrete and masonry walls in the respective storeys and staircases are plastered (machine-applied plaster or filling, depending on what is required). The masonry walls in the basement and underground car park comprise calcium silicate brick with joints that have been levelled or, alternatively, calcium silicate brick blocks.

### Ceilings

The reinforced concrete ceiling in the storeys of the building as well as in the staircases are plastered (machine-applied plaster or filling, depending on what is required). Where filigree ceilings are erected, only the abutments are plastered. The surfaces of the walls and ceilings in the apartments are finished in Q3 quality. The abutments of suspended ceilings are plastered according to the manufacturers' instructions. The ceilings and visible ceiling joists in the basement appear as a visible concrete area.

## IV. FINISHING (INTERIOR DESIGN)

### 1. GENERAL

The purchaser has the possibility to choose between three design lines for the interior design (Nature / Classic / Style). These three lines are described in more detail in subsection V. General information:

### 2. FLOORING

#### Residential floors

Floating screed on footstep sound insulation in conjunction with under-floor heating. The living, sleeping and ancillary areas (excluding tapping points) have parqueted floors, structurally necessary joints are carried out professionally. The bathroom floors have floating screed and feature underfloor heating with mineral sealant. The floors in the kitchens, bathrooms, toilets and utility rooms (for washing machines etc.) are tiled. A built-in floor recess is included in the entrance area of each apartment for a doormat. The floors of the staircase landings as well as in the corridors are tiled. The surface of the stairs are precast concrete units. The floor of the lobby is created using different types and colours of natural stone. The entrance to the respective buildings has a doormat with grating (outside) and large doormats (inside) featuring clean walking zones.

#### Outside

The pathways leading up to the respective buildings will be designed by landscape architects.

#### Cellar

The storage rooms in the basement are painted using dust-palliative paint, rooms housing technical equipment are painted in line with technical requirements. It cannot be ruled out that cables, pipes and/or channels will be visible on the walls and ceilings (in the basement storage rooms too).

### 3. WINDOWS

Windows as well as patio and loggia windows have two-coloured vinyl window frames (white on the inside) and carry an energy conservation certificate (EnEV-Nachweis). Windows on the upper floors are equipped with electrically operated screens on the outside for protection against summer heat. The screens are operated by a switch in the room and a central switch next to the apartment's front door.

Windows and patio doors (ground floor) are equipped with electrically operated vinyl roller shutters, incl. a security device and lockable window handles. The exception to this is the second escape route which is necessary according to building regulations. This roller shutter is opened and shut manually.

The mountings contain concealed transmission systems, areas which cannot be accessed subsequently are corrosion-protected. All opening windows are equipped with the opening functions: side opening; tilt/turn fitting. The window handles are made from stainless steel. All elements on large elements used for opening and closing can be operated using one hand only (side fitting). The outside window sills comprise precast zinc or aluminium sheets and as masoned cast stone. The window sills on the inside are made from marble stemming from the Jura Mountains or wooden composite, all visible surfaces are white in line with the architects' drawings. All windows contain, where prescribed under planning permission, a safety device in line with the architects' drawings.

### 4. DOORS

Main entrance doors to the building are made of a metal framework, thermally separated, or as a wood construction featuring heat insulating glazing in accordance with the master plans. The entrance door to the apartments is made of wood with tested resistance in accordance with RC2, single leaf with triple locking system featuring built-in wide-angled spy hole with 3-sided frame and bottom seal, incorporated in a steel wrap-around door frame. Laminated surface. Security lever handle with door handle and fittings which match the inner door handles; bell with built-in nameplate. Doors inside the apartment (room doors) are made of tubular chip board, approx. 40 mm in thickness, laminated, with wooden closed frame and filled with wooden composite, 3-sided seal. Door fittings in stainless steel with rosettes. Toilet and bathroom doors have WC fittings which match the room doors and feature an undercut to allow air to circulate.

The height of the apartment entrance doors is 2.26 m and that of the room doors is 2.135 m. Lounge doors feature a large clear pane of glass. Cellar doors (staircase, technical equipment room, double door system), flame-retardant doors (T30) and fire-resistant doors (T90) are manufactured as prefab steel doors, including an approved frame. Escape routes leading from the underground car park to the staircases are signposted by means of an escape route control system (e.g. Dorma TMS Basic Set).

### 5. WALL AND CEILING SURFACES

All rooms excluding toilets and bathrooms are painted in white emulsion paint on top of primed surfaces and non-woven material. White, wipe-resistant areas above the tiles in toilets and bathrooms are painted with white emulsion paint. For the accent colour used in the bathrooms, please refer to the relevant design line. The walls of the bathroom and guest toilets are tiled, the height of which is 2.40 m in the shower and approximately 1.20 m in the other areas prone to splashing in accordance with the architects' drawings. The walls of the stairs, flights of steps and landings are painted in a light colour determined based on the overall colour scheme.

The walls and ceilings of the entrance lobbies are decorated using lighting as an accent in accordance with the architects' drawings.



## MAXIMILIANS QUARTIER

All commonly used ancillary rooms (incl. boiler room, storage rooms for bicycles) as well as cellars are decorated in a wipe-resistant light-coloured emulsion paint. Visible surfaces of the concrete elements and masonry walls in the basement and underground car park (side walls of the garage exit, interior and exterior walls of the cellar, light shafts of the cellar etc.) are painted with an emulsion paint.

### 6. OTHER SURFACE TREATMENTS

Metal parts such as steel door frames, steel doors, banisters with handrails, railings and raised bars are painted in accordance with the architects' drawings – where necessary - protected against corrosion. This includes priming and painting; colour in accordance with the architects' drawings.

### 7. STRUCTURAL STEELWORK

#### Banisters

Banisters with a wooden or metal handrail (stainless steel) in accordance with the architects' drawings; all steel components are painted according to the colour scheme chosen.

#### Balcony, loggia and terrace balustrades

Built-in glass balustrades. Alternatively, metal balustrades are planned featuring a top flange, bottom flange and rods made of rolled steel in line with the architects' drawings; hot-dip galvanised and painted.

All other steel components in the outdoor area as above, hot-dip galvanised and painted.

### 8. FIXTURES AND FITTINGS

#### Kitchens

**The kitchen furniture is not included in the price.** Connections to the water mains, waste water (surface mounted) and electricity will be determined according to the kitchen planners' designs.

### 9. WASHING MACHINE CONNECTION

The utility room is intended, as far as possible, for the washing machine and dryer, otherwise in the bathroom.

### 10. ELEVATORS

Each building has a lift from the basement to the top floor; the actual elevator cab is stainless steel featuring large mirrors, flooring same as the staircase landings, accessible for the disabled, traction elevator.

### 11. LETTERBOXES

Letterboxes will be located in the entrance lobby. The letterboxes will be in line with the architects' drawings. The letterboxes will each have two nameplates.

### 12. LOCKING SYSTEM

There will be a central locking system for the communal areas such as, e.g. cellar, mechanical rooms and special-purpose rooms, which are lockable in accordance with assigned utilisation (locking scheme), including built-in keys for facility management. The respective apartment key also closes the front entrance door to the building, the letterbox and the cellar room, which has been assigned to the relevant apartment.

Individual locking systems with three (3) keys are intended for apartments with up to 1 bedroom, and apartments with 2 or more bedrooms will be allocated five (5) keys. These locking systems are manufactured by a well-known security system and feature a security certificate.

Access using plastic chips and a transponder will be handed over to gain access to the bicycle storage rooms in the underground garage.

### 13. VIDEO/DOORBELL SYSTEM

A doorbell system with a video (colour) intercom system and nameplate is located next to the main entrance. A doorbell with a nameplate is located by the side of the apartment door.

### 14. STORAGE ROOMS IN THE CELLAR

The storage rooms for the respective apartments are located in the basement and are normally partitioned by means of a lightweight metal partition (manufacturer: Braun or similar).

### 15. TRANCE LOBBY

High-end entrance lobby in the respective building with natural stone floors and pillars, mirrors, expanses of colour and lighting in accordance with the architects' drawings.



## V. FACILITY CHARACTERISTICS / DESIGN LINES

### 1. NATURE DESIGN LINE

#### Parquet flooring

Multi-layer parquet in long-plank look, whitewashed oak, varnished surface, thickness = approx. 11-15 mm, top layer: approx. 3.5 mm, grading (triangular) in accordance with DIN EN 13489, according to parquet sample; laid in irregular pattern; wood/wooden composite skirting boards, coated in white, height = 6 cm.

#### Kitchen floor tiles

In MARAZZI, Block Decoro MH93, 15 x 15 cm or similar. Bathroom floor tiles, guest WC, utility room and wall tiles in the bathrooms VILLEROY&BOCH, Warehouse, grey, matt, 60 x 60 cm or similar.

#### Door/window handles

HOPPE, San Francisco model, stainless steel.

#### Switches and sockets

Manufacturer for sockets, switches etc. from GIRA, E2 model in white, matt.

#### WC unit

VILLEROY&BOCH wall-mounted washdown WC, white, Subway 2.0 model, art. no. 5614R0R1, height when installed approx. 45 cm; VILLEROY&BOCH toilet seat art. no. 9M68S101 with soft close; flush-mounted cistern with GROHE panel element with cover plate, Nova Cosmopolitan in chrome matt inc. sound insulation set art. no. 38765P00.

#### Vanity unit in main bathrooms

Washbasin is installed so that the upper edge of the basin is at a height of approx. 90 cm above the upper edge of the finished flooring.

#### **Preferred option: Washbasin with base cabinet**

**KALDEWEI steel enamel-topped washbasin, Centro model, edge height 4 cm, art. no. 3055, outer width approx. 60 cm with DIANA base cabinet, Merino oak decor; C14 premium matt bar handle; standard corner valves + tube siphon.**

or

KALDEWEI steel enamel-topped washbasin, Centro model, edge height 4 cm, item no. 3055, outer width approx. 60 cm with design siphon + design corner valves and console panels in DIANA 80 or 90 x 55 x 5 cm, Merino oak decor. Installation of console plate subject to technical feasibility check.

or

KALDEWEI steel enamel wall-mounted washbasin, Centro model, edge height 12 cm, art. no. 3061, outer width approx. 60 cm with DIANA base cabinet, Merino oak decor; C14 premium matt bar handle. Standard corner valves + tube siphon.

KALDEWEI steel enamel-topped washbasin, Centro model, edge height 12 cm, art. no. 3057, outer width approx. 60 cm with design tube siphon + design corner valves, console panel in DIANA, 80 or 90 x 55 x 5 cm Merino oak decor. Installation of console plate subject to technical feasibility check.

GROHE single lever mixer tap, chrome-plated, Eurosmart Cosmopolitan model, art. No. 2339 600E.

#### Washbasin in guest bathrooms (where applicable)

KALDEWEI steel enamel washbasin, Puro model, dimensions 55 x 30cm, art. no. 3162 with design tube siphon and design corner valves. Insofar as the room dimensions are not appropriate for the size of the washbasins, a suitable basin is fitted in line with the architect's plans. Appropriate GROHE tap, Eurosmart Cosmopolitan model.

#### Bath tub

VILLEROY&BOCH acrylic bathtub with central outlet, approx. 180 x 180cm, white, model O.Novo, in tub supports, art. no. UBA 180CAS2V-01; drain and overflow set with feed function in SAINT; flush-mounted GROHE single lever tub tap, Eurosmart Cosmopolitan model, art. no. 1938 2000 in chrome with wall mount, integrated wall connection elbow art. no. 27057, wall bracket art. no. 27074; hand shower with two emitters and Relexaflex shower hose 1.25cm art. no. 28150.

#### Shower tub

In flats without a separate shower, a bathtub with a KALDEWEI Vaio set standing area, 180 x 180cm, model no. 946, art. no. 2346 0001 0001 with bathtub supports and drain and overflow set with feed function in DIANA is installed.

GROHE flush-mounted single lever tub tap with two settings, model Grotherm 2000, art. no. 1935 5001 in chrome.

flush-mounted valve bonnet Grotherm 3000 Cosmopolitan art. no. 1947 0000.

Flush-mounted wall connection elbow art. no. 2705 7000, wall holder art. no. 2797 4000, Grohe Tempesta Cosmopolitan 100 hand shower with four emitters art. no. 2757 5001 and Relexaflex shower hose 1.50m art. no. 2815 1000, rain shower Cosmopolitan head shower 210 inc. shower arm art.-no. 2605 2000.

#### Shower

**Preferred option: Tiled shower with lip, drain set, DIANA PLUS tiled shower channel, alternative stainless steel.**

or

VILLEROY & BOCH sanitary acrylic shower surface, Architectura MetalRim, dimensions up to 90 x 120 or according to the bathroom planning and subject to technical feasibility check.

DIANA shower doors according to bathroom planning, height approx. 2.00m.

GROHE flush-mounted shower mixer, Grotherm 2000 New Thermostat model with settings for hand shower and head shower art. no. 1935 5001 with wall mount; integrated wall connection elbow art. no. 27057, wall bracket art. no. 27074, rain shower Cosmopolitan head shower set 210 art. no. 26052, hand shower with four emitters art. no. 2757 5001 and Relexaflex shower hose 1.50m art. no. 28151.

#### Bathroom radiators (main bathroom, bath and shower room)

KERMI model Diveo or similar, dimensions approx. 170 x 60 cm or according to bathroom planning, colour (white) RAL 9016.

#### Bathroom mirror

Mirror approx. 90 x 120 or according to bathroom planning, wall outlet over mirror, separate switch. In guest bathroom (where applicable) the mirror is 60cm wide.



## MAXIMILIANS QUARTIER

### Colours

All bathroom ceilings and walls are painted white. A maximum of two walls in the bathrooms can, on request, be painted with the following colours: Marill 30, Malachit 20 or Patina 5 from the CAPAROL colour chart according to the architect's plans.

**Preferred option: All ceilings and walls are painted white.**

## 2. CLASSIC DESIGN LINE

### Parquet flooring

Multi-layer parquet, strip look, natural oak, varnished surface, thickness = approx. 11-15 mm, wear layer: approx. 3.5 mm grading (triangular) in accordance with DIN EN 13489, according to sample parquet; laid in irregular pattern; wood/wooden composite skirting boards, coated in oak, height = 6 cm.

Floor tiles (Kitchen, bathrooms, guest bathroom, utility room) and wall tiles in the bathrooms VILLEROY&BOCH, Unit Four, cream, 30 x 60 cm or similar. Laid in cross joint formation.

### Wall tiles in showers (alternative)

VILLEROY&BOCH, Unit Four Mosaic, cream, 5 x 5 (30 x 30) cm or similar on max. 2 wall surfaces, according to bathroom planning.

### Door/window handles

HOPPE, Stockholm model, stainless steel

### Switches and sockets

Plug sockets, switches etc. from GIRA, E2 in white, gloss.

### WC unit

VILLEROY&BOCH wall-mounted washdown WC, white, Avento model art. no. 5656R0XX, installation height approx. 45 cm; VILLEROY-&BOCH toilet seat art. no. 9M77C101 with soft close; flush-mounted cistern with panel element featuring cover plate in GROHE, Skate Cosmopolitan, alpine white inc. sound insulation art. no. 38732SH0.

### Vanity unit in main bathrooms

Washbasin is installed so that the upper edge of the basin is at a height of approx. 90 cm above the upper edge of the finished flooring.

**Preferred option: Washbasin unit with base cabinet KALDEWEI steel enamel-topped washbasin, Silenio model, edge height 12 cm, art. no. 3044, outer width approx. 60 cm with DIANA base cabinet, matt white with 2 drawers and C14 premium matt bar handle; standard corner valves + tube siphon.**

or

KALDEWEI steel enamel-topped washbasin, Silenio model edge height 12 cm, art. no. 3061, outer width approx. 60 cm with design tube siphon and design corner valves and console plate in DIANA, 80 or 90 x 55 x 5cm, white matt.

Installation of console plate subject to technical feasibility check.

KALDEWEI steel enamel-topped washbasin, Silenio model, edge height 4 cm, art. no. 3040, outer width approx. 60 cm with DIANA base cabinet, white, matt; with 2 drawers and C14 premium matt bar handle, designer tube siphon + angle valves.

or

KALDEWEI steel enamel-topped washbasin, Silenio model, edge height 4 cm, art. no. 3040, outer width approx. 60 cm with design tube siphon + design angle valves and console plate in DIANA, 80 or 90 x 55 x 5 cm,

white, matt. Installation of console plate subject to technical feasibility check.

GROHE single lever mixer tap, chrome plated, Essence model, art. no. 3289 8001.

### Washbasin in guest toilets (where applicable)

KALDEWEI steel enamel washbasin, Puro model, dimensions 55 x 30cm, art. no. 3162 with design tube siphon and design corner valves. Insofar as the room dimensions are not appropriate for the size of the washbasins, a suitable basin is fitted in line with the architect's plans. Suitable GROHE tap, Essence model.

### Bath tub

VILLEROY&BOCH acrylic bathtub with central outlet, approx. 180 x 180cm, white, Loops & Friends, cornered, art. no. UBA 180LFS2V-01 in tub supports; with drain and overflow set with feed function in SAINT; GROHE flush-mounted single lever tub tap, Essence model, art. No 1938 5001; GROHE Tempesta New hand shower with two emitters art. No. 2759 7000, shower hose 1.25cm art. no. 2836 2000 and holder 2867 9000.

### Shower tub

In apartments without a separate shower, a bathtub with a KALDEWEI Vaio set standing area, 180 x 180cm, model no. 946, art. no. 2346 0001 0001 with bathtub supports and drain and overflow set with feed function in DIANA is installed.

GROHE flush-mounted single lever tub tap, model Groh-term 3000 art. no. 1946 8000 in chrome, flush-mounted valve bonnet Grohtherm 3000 Cosmopolitan art. no. 1947 0000, flush-mounted wall connection elbow with

bracket art. no. 2867 9000, Grohe Tempesta 100 hand shower with three emitters art. no. 2841 9001 and Grohe Silverflex shower hose 1.5m art. no. 2836 4000; overhead rain shower Cosmopolitan 210 inc. shower arm art. no. 2605 2000.

### Shower

**Preferred option: Tiled shower with lip, drain set, DIANA PLUS tiled shower channel, alternative stainless steel**

or

VILLEROY & BOCH sanitary acrylic shower surface, Architectura MetalRim, dimensions up to 90 x 120 cm. Or according to the bathroom planning and subject to technical feasibility check.

DIANA shower doors according to bathroom planning, height approx. 2.00m.

GROHE, flush-mounted shower mixer, Grohtherm 3000 New Thermostat model with settings for hand shower and head shower art. no. 3457 1000 with wall mount, integrated wall connection elbow with wall bracket art. no. 2867 9000, hand shower with three emitters art. no. 2841 9001 and shower hose art. no. 2836 4000.

### Bathroom radiators (main bathroom, bath and shower room)

PURMO, Flores or similar, dimensions approx. 180 x 60 cm or according to bathroom planning, colour (white) RAL 9016.



## MAXIMILIANS QUARTIER

### Bathroom mirror

Mirror approx. 90 x 120 cm or according to bathroom planning, electricity outlet over mirror, separate switch.

In guest toilet (where applicable) the mirror is 60 cm wide.

### Colours

All bathroom ceilings and walls are painted white. A maximum of two walls in the bathrooms can, on request, be painted with the following colours: Palazzo 120, Palazzo 115 or Barolo 40 from the CA-PAROL colour chart according to the architect's plans.

**Preferred option: All ceilings and walls are painted white.**

## 3. STYLE DESIGN LINE

### Parquet flooring

Multi-layer parquet in 3-strip look, natural oak, varnished surface, thickness = approx. 11-15 mm top layer: approx. 3.5 mm, grading (triangular) in accordance with DIN EN 13489, according to parquet sample, laid in irregular pattern, wood/wooden composite skirting boards, coated in walnut, height = 6cm.

### Floor tiles (kitchen, bathrooms, guest bathrooms, utility room)

PORCELAINGRES, Just Grey, black 30 x 60 cm or similar, laid in 1/3 offset.

### Wall tiles in bathrooms

PORCELAINGRES, Urban, Grey, 30 x 60 cm or similar, laid vertically.

### Wall tiles in showers

EQUIPE Country Vision, 6.5 x 20 cm or similar on max. 2 wall surfaces according to architect's plans.

### Door/window handles

HOPPE, Dallas model, stainless steel.

### Switches and sockets

Plug sockets, switches etc. from GIRA, model E2 in anthracite, matt.

### WC unit

VILLEROY&BOCH wall-mounted washdown WC, white, Legato art. no. 55663RO, installation height approx. 45 cm; VILLEROY&BOCH toilet seat art. no. 9M95S1 with soft close; flush-mounted cistern with panel element featuring GROHE cover plate, Skate Cosmopolitan, chrome with sound insulation art. no. 3873 2000.

### Vanity unit in main bathrooms

Washbasin is installed so that the upper edge of the basin is at a height of approx. 90 cm above the upper edge of the finished flooring.

### **Preferred option: Vanity unit with base cabinet**

**KALDEWEI mounted washbasin, Puro model, edge height 12 cm, outer width approx. 60 cm, art. no. 3164 with DIANA base cabinet, Hacienda black with 2 drawers and C14 premium matt bar handle; standard corner valves + tube siphon.**

or  
KALDEWEI counter top washbasin, Puro model, edge height 12 cm, outer width approx. 60 cm, art. no. 3157, outer width approx. 60 cm with design siphon + design corner valves and DIANA console panels, 80 or 90 x 55 x 5 cm, Hacienda black. Installation of console plate subject to

technical feasibility check.

or

KALDEWEI steel enamel counter top washbasin, Puro model, edge height 4cm, art. No. 3154, outer width approx. 60cm with DIANA base cabinet, Hacienda black with two drawers and C14 premium matt bar handle. Standard corner valves + tube siphon.

or

KALDEWEI steel enamel counter top washbasin, Puro model, edge height 4cm, art. no. 3154, outer width approx. 60 cm with design siphon + design corner valves and DIANA console panels, 80 or 90 x 55 x 5 cm, Hacienda black. Installation of console plate subject to technical feasibility check.

GROHE single lever mixer tap, chrome plated, Allure model, art. no. 3275 7000 alternative Allure model art. no. 3214 6000.

### Washbasin in guest toilets (where applicable)

KALDEWEI steel enamel washbasin, Puro model, dimensions 46 x 46 cm, art. no. 3163 with design tube siphon and design corner valves. Insofar as the dimensions of the rooms are not suitable for the size of the washbasins, a suitable basin is fitted according to the architect's plans. Suitable GROHE tap, Allure model, art. no. 3275 7000.

### Bath tub

VILLEROY&BOCH acrylic bathtub with central outlet, approx. 180 x 180cm, white, Architectura, art. no. UBA180ARA2V-01 tub supports, drain and overflow set with feed function; GROHE flush-mounted single lever tub tap, Allure model, art. no. 1931 5000 with wall mount, GROHE hand shower, Euphoria Cube model, art. no. 2770 2000 inc. shower hose 1.25m and bracket, mounted wall connection elbow art. no. 2770 4000.

### Shower tub

In apartments without a separate shower, a bathtub with a KALDEWEI Vaio set standing area, 180 x 180cm, model no. 946, art. no. 2346 0001 0001 with bathtub supports and drain and overflow set with feed function in DIANA is installed.

GROHE flush-mounted single lever tub tap with two settings, Grotherm Cube model, art. no. 1995 8000 in chrome. Grohe Eurocube flush-mounted valve bonnet art. no. 1991 0000, Grohe Euphoria Cube flush-mounted wall connection elbow art. no. 2770 4000, Grohe Euphoria Cube hand shower inc. bracket and shower hose art. No. 2770 2000, Grohe Rainshower overhead shower F series 10" inc. shower arm art. no. 2505 0000.

### Shower

**Preferred option: Tiled shower with lip, drain set, DIANA PLUS tiled shower channel, alternative stainless steel**

or

VILLEROY & BOCH sanitary acrylic shower surface, Architectura MetalRim, dimensions up to 90 x 120cm or according to the bathroom planning and subject to technical feasibility check.

DIANA shower doors according to bathroom planning, height approx. 2.00m.



## MAXIMILIANS QUARTIER

GROHE, flush-mounted shower mixer, Grohtherm cube model with angular rosette and integrated 2-way settings for hand shower and overhead shower, chrome, art. no. 1935 58000 with wall mount, integrated wall connection elbow art. no 2770 4000, Cube hand shower with mount and Relexaflex shower hose 1.5m, art. no. 2770 2000. Overhead shower 254 x 254 mm, outreach 275 mm, art. No. 2606 0000.

Bathroom radiators (main bathroom, bath and shower room)  
PURMO, Elato model or similar, dimensions approx 170 x 60 cm or according to bathroom planning, colour RAL 9004, signal black.

### Bathroom mirror

Mirror approx. 90 x 120 cm or according to bathroom planning, electrical wall outlet over mirror, separate switch.

In guest toilet (where applicable) the mirror is 60cm wide.

### Colours

All bathroom ceilings and walls are painted white. A maximum of two walls in the bathrooms can, on request, be painted with the following colours: Marill 15, Onyx 95 or Siena 5 from the CAPAROL colour chart according to the architect's plans.

Preferred option: All ceilings and walls are painted white.

## VI. TECHNICAL INSTALLATIONS

### 1. DOMESTIC INSTALLATIONS

#### Waste water

Waste water is disposed of via the public water network, whereby floor drains below the backflow level are drained with pumping units.

#### Rain water

Roofs, terraces, balconies and loggias are drained via external drainpipes which lead into provision or retention areas. Implemented according to drainage concept.

#### Cold water

Fresh water is supplied via the public water supply network with water meters and filter devices. Block D4 is equipped with a pressure boosting system.

Insofar as it is necessary for fire protection, staircases are equipped with ascending pipes according to the fire protection concept.

Roof terraces and gardens allocated to flats are fitted with taps connected to the respective meters.

#### Water meters

Each flat is equipped with a usage meter from the service provider for cold and hot water.

### 2. HEATING INSTALLATION

The heating and hot water supply is provided via a combined heat and power unit (CHP) by GASAG.

Water is heated centrally via the respective heat supplier transmission station. The storage capacity is allocated correspondingly according to demand. All circulation pipes are connected to the respective meter.

Rooms are heated via underfloor hot water heating according to the heating load calculation. Underfloor heating is supplied via impermeable plastic pipes from distribution units on a heat and soundproofed base moulded into the floor screed.

The bathrooms are fitted with an additional heated towel rail with its own heating circuit attached to the circuit of the flat, heated to the same system temperature during the heating period as the underfloor heating. Its thermostat actuator is controlled via the room thermostat along with the underfloor heating.

Communal areas such as staircases are heated by a static heating element.

### Heat meters

Each apartment is fitted with a heating circuit distributor with a digital heat meter for remote reading.

The heat meters, cold and hot water meters and smoke alarms are supplied by external service providers for an annual fee and do not become the property of the buyer or owners' association.

## 3. PROPERTIES

See above, design lines.

## 4. VENTILATION SYSTEMS

Interior rooms ("exhaust air rooms" according to DIN 1946-6) such as bathrooms, WCs and rooms containing washing machines are fitted with exhaust air systems in accordance with DIN 18017-T3.

Furthermore, a ventilation concept has been created for the planned construction project in accordance with DIN 1946-6. This concept is based on the necessary ventilation required by the minimum ventilation level according to DIN 1946-6 to ensure structural protection (damp) under normal usage with partly reduced moisture loads (e.g. intermittent absence of the user or no tumble dryer being used in the unit during absence).

In order to meet the requirements of the ventilation concept and the corresponding ventilation level, the above exhaust air units are used in the the relevant exhaust air rooms according to DIN 18017-T3. In the case where there are no interior exhaust air rooms, exhaust air systems are as a rule also integrated into naturally ventilated exhaust air rooms.

### Backflow

Outdoor air flows through apertures in the façade ( e.g. window rabbit ventilator) via the fresh air spaces. This air supply flows through neighbouring rooms or transmission rooms, generally via door undercuts to the exhaust air rooms.

Kitchens are only fitted with a mechanical ventilation system when necessary according to the floor plan.

There are central exhaust units which are in continuous operation.

In line with the ventilation concept, the underground garage is ventilated via openings built into the external wall and garage roof.

Refuse rooms are ventilated via the roof or through recirculated air units in each bin room with integrated oxygen activation.



## VII. ELECTRICAL INSTALLATIONS

### 1. ELECTRICITY SUPPLY

Electricity is supplied to the building via the local energy provider's public low voltage network. All flats are supplied according to DIN 18015 (curve B).

### 2. ELECTRICAL INSTALLATIONS

The building's main connection, circuit board, remote reporting systems and meters are in the building's electrical room in the basement. Equipotential bonding for the water and heating system pipework etc. is in accordance with DIN. The circuit systems and installations within the apartments are concealed. There are individual circuits within the flats for heavy use appliances (electric oven, washing machine, dryer, dishwasher). In accordance with DIN and VDE standards, all high power circuits are fitted with fault-current circuit breakers.

The buildings are fitted with a ring earthing system with connecting lug which serves as a common earthing system in accordance with the technical connection requirements of the energy provider and DIN 18014.

The apartments are furnished with fixtures and light fittings as follows:

	Plug sockets	Ceiling and wall outlets	Tel.	Aerial
Bedroom up to 12 m <sup>2</sup>	6	1	1	1
up to 20 m <sup>2</sup>	8	2	1	1
over 20m <sup>2</sup>	11	3	1	1
Kitchen / kitchenette up up to 10 m <sup>2</sup>	3	2		
up to 12 m <sup>2</sup>	4	3		
over 12 m <sup>2</sup>	5	4		
Main bathroom	4	2		
Guest bathroom / WC	2	1		
Utility room with connection for washing machine	3	1		
Corridor / hallway length up to 3m	1	1		
length over 3m	2	2		
Outdoor seating area/ balcony / terraces / loggias length 3m	1	1		
length over 3m	2	2		
Cellar	1	1		
Storage room	1	1		

With the exception of the balcony / outdoor seating area, each room entrance and each bedstead is fitted with a switch for the main room light. The plug sockets for the bedsteads, and for the work surfaces in the kitchen, are double sockets. In the table these are listed as single sockets.

Each kitchen is fitted with a plug socket or a connection for a dishwasher, microwave, recirculation hood, stove / oven and fridge-freezer.

Plug sockets for washing machines and dryers are provided.

The balconies, loggias and terraces are fitted with a plug socket and a wall connection including a lighting fixture according to the architect's plans.

All storage areas in the cellar are fitted with a ceiling light and a plug socket. Flat meters measure consumption.

### 3. TELECOMMUNICATIONS, INTERNET AND CABLE TELEVISION PROVISION

Full coverage for cable television, high-speed internet and telephony is provided by the telecommunication service provider Vodafone Kabel Deutschland (VKD), who have access to the building network infrastructure to provide this service (see also II).

### 4. VIDEO INTERCOM SYSTEM

Each flat is fitted with a private colour video intercom system with door opener and building entry microphone.

### 5. EXTERNAL AREAS

The lighting of external pathways and building entrances is in accordance with the separate plans drawn up by the architect.

### 6. STAIRCASE

Lighting fixtures are installed in the staircases in accordance with the architect's lighting concept. Two lockable plug sockets are provided for each staircase.

### 7. UNDERGROUND GARAGE / CELLAR

Installations in the building storage rooms, utility rooms and rubbish bin rooms and adjacent corridors are concealed. These areas are fitted with mounted linear luminaries.

In order to meet the needs of electric car users in the future, each of the parking spaces in block D is fitted with a charging point for electric cars which can be used immediately. Charger sockets from technology provider Ubitricity are installed for this purpose, allowing each driver to be charged appropriately for their use. Charging electric cars is therefore not covered by the general electricity supply to the building, but allocated to individual vehicle users.

### 8. LIGHTING / CIRCUIT

The communal areas such as hallways, staircases, utility rooms etc. are fitted with LED lighting. The lights are motion-activated. Electricity used in communal areas is measured by a separate meter.



## VIII. EXTERNAL AREAS

### 1. PLANTS IN YARD AREAS

The interior courtyard and front gardens in the communal areas are paved and planted. Special use rights for a partial area are granted to the ground floor flats.

### 2. ROOF AREAS

The roof areas are partly planted extensively according to the architect's plans. Furthermore, there are technical installations on the roof, e.g. lift crossings, ventilation units, exhaust pipes, skylights, smoke flues or similar technical units.

### 3. CHILDREN'S PLAYGROUND

In accordance with Berlin building regulations, there is a children's playground in the external area.

### 4. WASTE DISPOSAL

There are rubbish bin rooms in the cellar for the temporary storage of waste. There are temporary bin placement areas outside the building.

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## FORCKENBECKSTRASSE CONSTRUCTION PROJECT

BERLIN CHARLOTTENBURG-WILMERSDORF

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