



PATMORE

RESIDENCE

TECHNICAL DESCRIPTION

DEVELOPED BY:



STRUCTURAL SYSTEM



FOUNDATIONS AND WALLS

Shallow foundation by means of isolated and continuous footings made of reinforced concrete, appropriately braced, and foundation slabs in specific areas, made with concrete HA 30/F/20/XC3 and steel UNE-EN 10080 B 500 S, on a 10 cm layer of lean concrete HL-150/B/20.

Retaining walls of reinforced concrete on one or both faces, depending on location, reinforced and with thicknesses according to project drawings, made with concrete HA-30/F/16/XC3 and steel UNE-EN 10080 B 500 S.

Backfilling of the rear face of foundation elements with selected earth from the excavation itself, compacted to a dry density not less than 95% of the maximum obtained in the Modified Proctor test, carried out according to UNE 103501.



LOAD-BEARING STRUCTURE

Load-bearing structure of reinforced concrete. The horizontal structure will consist of waffle slabs with drop beams in the living-dining area. The vertical load-bearing structure of reinforced concrete consisting of columns and retaining walls.

Stair slabs will be solid reinforced concrete slabs.

Specific characteristics as per final project documentation.

SANITARY SLABS

Elevated slabs resolved using the "Caviti-C-20" system over lean concrete.

TWO-WAY SLABS

Waffle slabs in the rest of the horizontal structure, made of reinforced concrete with lost formwork using concrete block molds; total depth to be determined according to structural calculations; made with concrete HA-25/B/16/IIa (plant-produced) and B500S steel.

CONCRETE SLABS

Concrete slabs with welded mesh, thickness according to load calculations, made with HM-20/B/20/X0 concrete (plant-produced, truck-delivered), and B 500 T steel mesh; floated surface finish; contraction joints as per the Site Management's instructions; laid over crushed stone bedding.

COLUMNS

Reinforced concrete columns in compliance with the EHE standard, Structural Code, and Spanish Building Code (CTE), DB-SE (Basic Structural Safety Document).

Supervised by the Project Management team; concrete and steel testing by an accredited laboratory; external control by Technical Control Body (OCT); ten-year insurance policy issued by an authorized insurer.

ENVELOPE SYSTEM



EXTERIOR WALLS

Exterior walls made in ½ brick-layout with perforated brick. Exterior Thermal Insulation System (SATE) with XPS panels of 6 cm thickness, topped with a two-layer smooth natural lime mortar coating applied manually.

On the inner face, over the main wall, a 1.5 cm thick mortar layer is applied per DB SE-F and NTE-FF.

Followed by an independent lining consisting of a 15 mm laminated plasterboard mounted on galvanized steel studs with an intermediate layer of mineral wool thermal-acoustic insulation, thickness determined by energy saving requirements and calculations.

Overhanging elements such as balconies and pergolas shape the facades.

Balconies are made with solid reinforced concrete slabs.

Pergolas are constructed using a steel core with an outer finish of Iroko wood (or similar) for durability and stability.



EXTERIOR JOINERY

Windows take up a significant portion of the façade and include thermal break and high thermal performance.

The project includes tilt-and-turn and large sliding windows with minimal visual interference.

Aluminum frames with thermal break from top brands (Metra or equivalent), with finishes that combine wood-like warmth with aluminum strength.

Frames meet all thermal and acoustic standards of the Spanish Building Code (CTE).

Profiles include thermal break, ventilation openings, and subframes.

Double low-emissivity glazing with solar control, specified as needed per project; set into the frame with exterior sealing in the same color as the frame.

MAIN ENTRANCE DOOR

Large-format doors with a unique design combining wood and glass, reinforcing the home's contemporary style.

High-quality concealed hardware; security rating RC3 or higher.

Soft and airtight closing.

ROOF SYSTEM



NON-WALKABLE GREEN ROOF

Flat, non-walkable, non-ventilated green roof. Covered with native aromatic plants requiring low water consumption over a substrate layer.

WALKABLE ROOFROOF

Walkable roof on terraces, constructed with lightweight concrete slope layer, 2 cm waterproof cement mortar leveling layer, black bituminous primer, single-layer waterproofing system, and final surface of porcelain stoneware suitable for exterior use.

Stone paving, cobblestones, and other materials to be used in specific areas as defined by project Management.



NON-GREEN WALKABLE ROOF

Similar system as above without vegetation: lightweight concrete slope layer, waterproof cement mortar layer, bituminous primer, single-layer waterproofing, and porcelain stoneware finish.

Specific zones to include stone paving, cobblestones, etc., as per project drawings.

OVERHANGS

Solid concrete slabs covered with the same material as the façade.

PERGOLAS

Steel core and wooden outer finish.

COMPARTMENTALIZATION SYSTEM



VERTICAL PARTITIONS

INTERIOR PARTITIONS

Self-supporting framework made of two 12.5 mm standard laminated plasterboards on each side, screwed to 70 mm galvanized steel studs.

Filled with 60 mm mineral wool insulation.

Finish level Q3 or Q4 depending on final finish.

Sealing strips under perimeter profiles.

Water-resistant boards in wet rooms.

Reinforced sheet metal plates added where needed to mount suspended elements.

ELEVATOR SHAFT WALLS

11.5 cm thick acoustic-insulated, perforated concrete block walls (51 dB).

Plastered on the inner shaft face.

Exterior finish: single-layer self-supporting lining with double 12.5 mm laminated plasterboard and 50 mm mineral wool insulation.



PARTITION WALLS

Double wall made of 11.5 cm thick perforated brick.

Each side includes a self-supporting lining of double 12.5 mm laminated plasterboard with 50 mm mineral wool insulation.

INTERIOR JOINERY

Hinged and sliding interior doors, solid core, plain MDF panel, lacquered in tones matching the walls, concealed hinges.

HORIZONTAL PARTITIONS

INTER-FLOOR STRUCTURES

Designed as two-way slabs as per structural calculations.

Over the slab: underfloor heating system, anti-impact sheet, and flooring.

FALSE CEILINGS (INDOORS)

Continuous horizontal ceilings made of 15 mm laminated plasterboard mounted on 60x27 mm steel studs with a 30x30 mm perimeter profile; suspended with hanging rods.

Recessed edges (“shadows”) as shown in project drawings.

Step changes made with plasterboard.

Water-resistant boards in all humid environments.

System access hatches made from the same material with concealed frames.

FALSE CEILINGS (EXTERIOR)

Continuous ceilings made with “PLACO” Hydro Premium System or equivalent, using 12.5 mm high-performance cement boards with rod anchoring.

FINISHING
SYSTEM



FAÇADE FINISH

Two-layer lime mortar render by Webercal or equivalent, 10 mm thick, smooth washed finish, applied manually on base mortar.

FAÇADE STONEMASONRY

Dry-laid natural stone masonry in designated areas, following the traditional "Marge" style.

FLOORING



INDOOR FLOORING

Finest quality rectified porcelain tiles by Porcelanosa or equivalent, large-format, natural finish, slip-resistance $Rd \leq 15$, class 0.

Laid on self-leveling mortar with rigid EPS perimeter strips.

Double bonding with C1 cement adhesive, grouted with white cement paste, matching tile color.

Skirting board in identical material.

STAIRS

Two-flight straight staircases with intermediate landing.

Clad in single-piece porcelain tiles matching the interior flooring, with tread and riser.

Outdoor stairs: slip-resistant tiles, class 3.

OUTDOOR FLOORING

Finest quality large-format, rectified porcelain tiles with natural finish, $Rd \leq 15$, class 3.

Laid with C2 adhesive and double bonding; joints grouted with high-abrasion-resistant cement mortar with low water absorption, in matching color.

GARAGE FLOORING

Driveway: Cream-colored granite cobblestones over concrete slab (continuation of street surface).

Parking area: Anti-slip epoxy resin flooring, color defined by project Management.

Multipurpose area: Porcelain tile flooring, same as house interior.

WALL
TILING



BATHROOMS AND TOILETS

Matte finish large-format porcelain tiles on laminated plasterboard.

C1 grey cement adhesive, seamless joints, stainless steel trim corners.

KITCHEN

Wall tiles in wet areas with large-format pieces similar to the countertop (Dekton or equivalent), in warm tones.

PLASTER AND PAINTING



PLASTER

Sprayed gypsum in specified areas, 15 mm thick, fine finish with corner guards and anti-alkali mesh on material changes.

PAINTING

Anti-mold plastic paint with smooth texture and satin finish, in selected colors.

Primed with acrylic copolymer-based primer; finished with two top coats.

WINDOW SILLS

Ceramic porcelain windowsills, same finish as floor.

MECHANICAL AND ELECTRICAL SYSTEMS



PLUMBING

Buried connection, shut-off valves, general meter, supply pipes, centralized meter panel, risers, cold and hot potable water distribution using specified piping and valves.

In accordance with the Water Utility and CTE DB HS-4.

Details shown in plumbing drawings and annex.

DRAINAGE

Separate system for horizontal and vertical drainage, using PVC pipes.

In accordance with CTE DB HS-5.

Details shown in drainage drawings and annex.

ELECTRICITY & TELECOM

Complete electrical distribution with high electrification level per space layout.

Complies with Low Voltage Electrical Regulation (REBT).

TV and telephone outlets in all rooms.

Devices: color to be selected.

Telecoms system compliant with Royal Decree on shared infrastructure for telecom services.



HOME AUTOMATION

Basic system included (customizable by client), covering lighting, climate, and security control.

VIDEO INTERCOM

Color digital vandal-resistant video door phone with outdoor plate, call button, camera, power supply, main monitor with base, extra monitor and phone, door opener, visor, video receivers, wiring, and boxes.

CLIMATE CONTROL & HOT WATER

Ducted air-conditioning (hot/cold) with room-by-room control.

Water-based underfloor heating throughout.

DHW via high-efficiency athermal system with recirculation loop for immediate hot water.

VENTILATION

Fresh air ventilation in all habitable rooms.

Supplemented by mechanical extract system with humidity control, per project specs.

SECURITY

Anti-intrusion system.

Security glazing for all accessible openings; security front door; alarm system.

RENEWABLE ENERGIES – SOLAR PV

Photovoltaic system per house to support electrical demand, with monocrystalline silicon panels integrated into the architecture, resulting in significantly reduced utility costs.

INSULATION



THERMAL INSULATION

Complete thermal insulation across all surfaces in contact with air or ground, forming a continuous thermal envelope.

Mineral wool boards in partitions and linings; polystyrene (XPS/ EPS) in floors, roofs, and other contact areas as needed.

ACOUSTIC INSULATION

Full acoustic insulation in external surfaces and interior partitions.

Mineral wool boards in partitions and linings; anti-impact sheets between floors; acoustic bands under walls.

High-performance acoustic glazing; interior doors with sound-insulated cores for improved privacy.



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