STERN


STE
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EFFICIENT
BEAUTY

VILLA STERN

VILLA STERN

SITE PLAN

1.255 m² BUILT AREA
The surface of the house is distributed in three floors in the plot of 2.212 m².

7 BEDROOMS
All bedrooms have en-suite bathrooms and direct lighting and ventilation.

OUTDOOR POOL
The pool is 12m long and 3m wide, which facilitates its uses as a sport element.

WALK-IN WATER MIRROR
The presence of a water mirror adjoinning to the pool generates a feeling of freshness and brings light to the house.

WELLNESS AREA
The house has a SPA, gym and sauna to ensure well-being and facilitate a healthy life.

HEATED SWIMMING POOL
In the basement there is a heated swimming pool that is illuminated with LED lighting.

CIRCADIAN LIGHTING
Ciradian lighting consists of the automatic regulation of the light tone to suit human needs.

CONTACT WITH NATURE
The villa is located in the most privileged environment completely surrounded by nature, without leaving all the comforts of cosmopolitan life.

VIEWS TO REAL CLUB VALDERRAMA
The villa has views of the Real Club de Valderrama from all first floor bedrooms.

SECURITY
The urbanization has its own security service.

ELEVATOR
The villa has a fully customized elevator connecting the basement, the ground floor and the first floor.

MASTERPLAN

OUTDOOR AREAS
swimming pool
water mirror
covered terrace
uncovered terrace

DAY AREA
hall
living room + tv room
dining room
show kitchen
prep kitchen
powder room
bedroom with bathroom

GUEST AREA
bedroom
bathroom
kitchenette

NIGHT AREA
master bedroom with en-suite bathroom
3 bedrooms with en-suite bathrooms
studio

LEISURE & WELLNESS AREA
interior pool
SPA
shower
GYM
cinema
living room & bar
toilet

SERVICE AREA
laundry
staff bedroom with en-suite bathroom

FACILITIES
elevator
garage for 4 cars
storage room
technical room

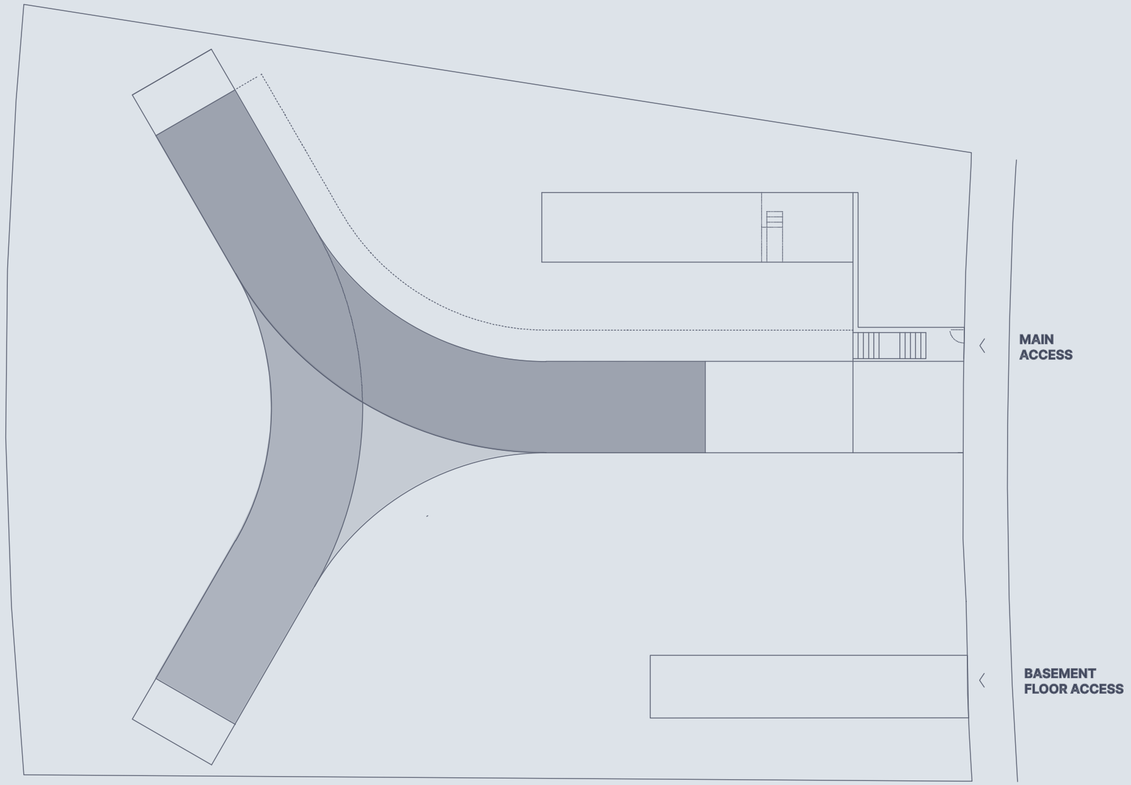
TOTAL PLOT AREA
2.212 m²

TOTAL BUILT AREA
1.255 m²

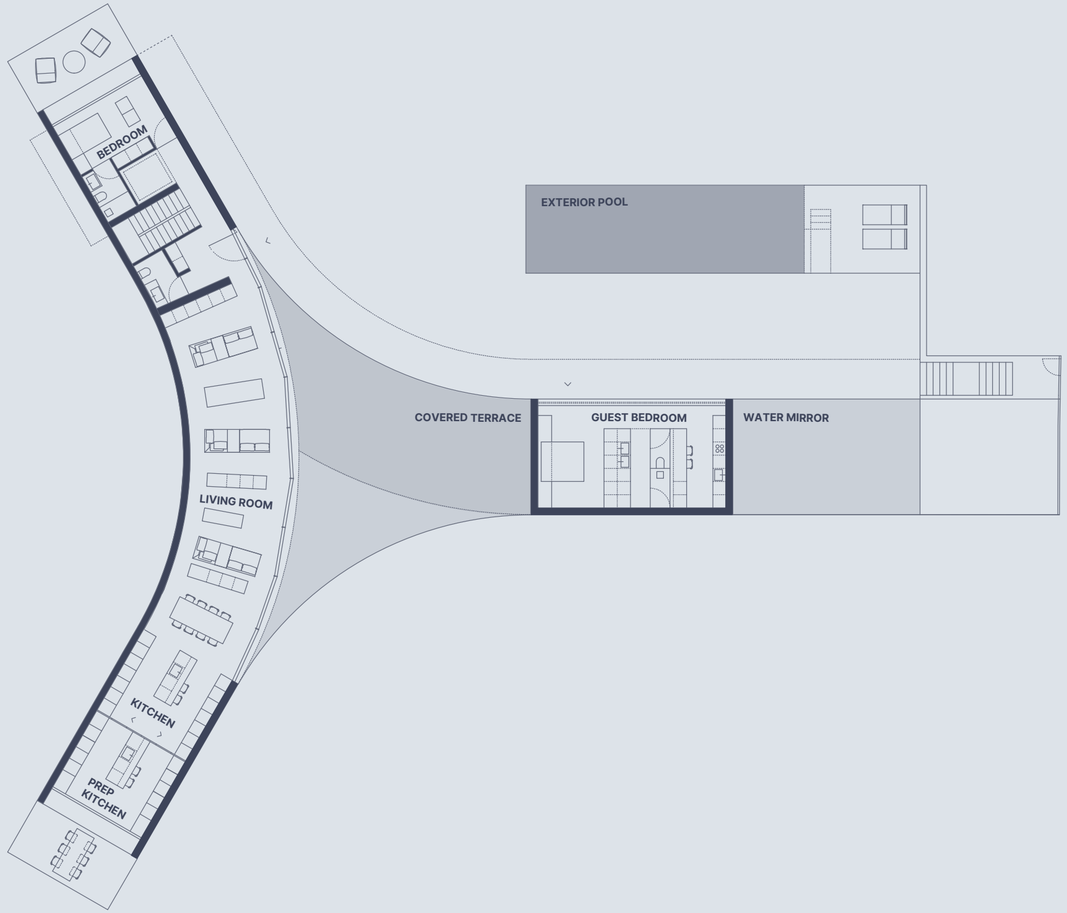
INTERIOR AREA
1.011 m²

COVERED TERRACES
65 m²

UNCOVERED TERRACES & WATER AREAS
179 m²



GROUND FLOOR

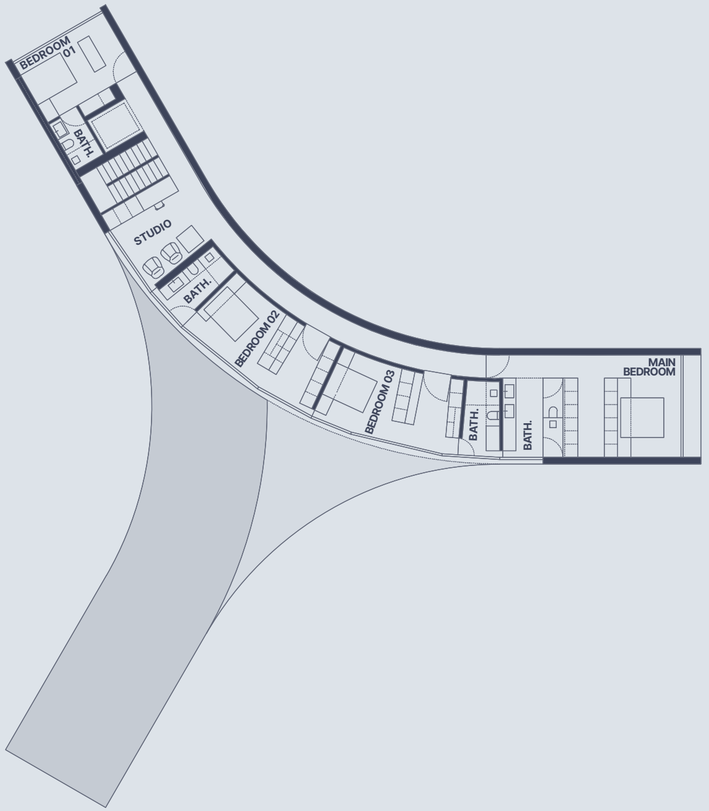


TOTAL BUILT AREA
489 m²
INTERIOR AREA
251 m²

USEFUL AREAS

Living - Kitchen	115 m²
Bedroom	18 m²
Guest bedroom	39 m²
Hall - Toilet	11 m²
Covered terraces	65 m²
Uncovered terraces	83 m²
Swimming pool	44 m²

FIRST FLOOR



TOTAL BUILT AREA
201 m²
INTERIOR AREA
201 m²

USEFUL AREAS

Studio	16 m²
Bedroom 01	19 m²
Bedroom 02	28 m²
Bedroom 03	28 m²
Main Bedroom	37 m²


PRADA

BASEMENT

TOTAL BUILT AREA
565 m²
INTERIOR AREA
559 m²

USEFUL AREAS

Leisure - Cinema	146 m²
Wellness - Gym	86 m²
Laundry - Toilet	9 m²
Garage	154 m²
Staff area	20 m²
Technical room	48 m²

ZERO ENERGY CONSUMPTION

THE INNOVATED TRADITION

Architecture is no longer limited to supplying the functional requirements of the users who inhabit it. From Cork Oak Mansion, in collaboration with Fran Silvestre Arquitectos, there is an indisputable commitment to the environment. It is committed to sustainability through the architecture itself, which incorporates a comprehensive design in which all aspects influence.

The objective is for the architectural design from innovative tradition to guarantee watertightness, energy generation and the absence of losses to ensure that the home's consumption is zero.

ZERO ENERGY CONSUMPTION
The way to achieve maximum comfort while respecting the environment

The concept of zero energy consumption without sacrificing maximum comfort is the callenge of this villa. It consists of integrating nature and open spaces in a design and luxury home, with the aim of practically eliminating the environmental impact.

This house uses renewable energy to supply all its needs, making it an energy self-sufficient villas. All these economic and environmental benefits do not detract from the aesthetics and luxury of the villa.

To achieve this, a geothermal system with solar panels and battery accumulation generate enough energy to satisfy all the consumption of the house in one year, as well as an equivalence to 60,000 kms a year of an electric car. All this can be achieved without sacrificing aesthetics, good materials and the greatest exclusivity.

GEOTHERMAL SYSTEM
Geothermal system use the relatively constant temperature of the earth as the exchange medium instead of the outside air temperature.

Air-conditioning, sanitary hot water and underfloor heating energy production by means of a geothermal system.

PHOTOVOLTAIC SYSTEM
Photovoltaic system is a special electrical system that produces energy from a renewable and inexhaustible source: the sun

38.64 kWp grid-connected solar photovoltaic system for self-supply.

BATTERY SYSTEM
Battery system is made up of electrochemical cells which generate electrical energy at a specified voltage.

Accumulation of energy without waste for later use.

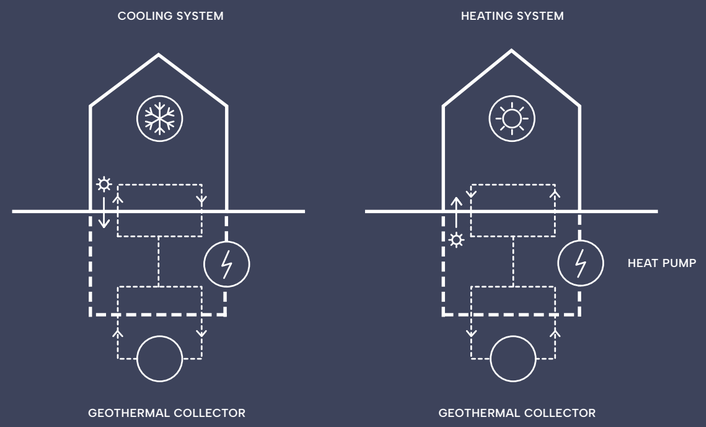
THERMAL INSULATION SYSTEM
Thermal insulation system reduces heat transfer between solid objects, fluids or gases by introducing a barrier between them.

Continuous thermal envelope that guaarantees temperature control and comfort of the house with no energy losses.

FIRST CLASS MATERIALS AND GOOD ORIENTATIONS
First class materials are those which are extremly good and of the highest quality.

High quality carpentry and materials are used to preevent interior-exterior heat flow. In the other hand, the correct orientation of the house ensures the use of shading, which favors the natural air conditioning of the villa.

WE DON’T TALK ABOUT SUSTAINABILITY
AS A MARKETING CONCEPT.
IN CORK OAK MANSION, IT IS A
SCIENTIFICALLY
PROVEN REALITY.



LOW-ENTHALPY GEOTHERMAL ENERGY

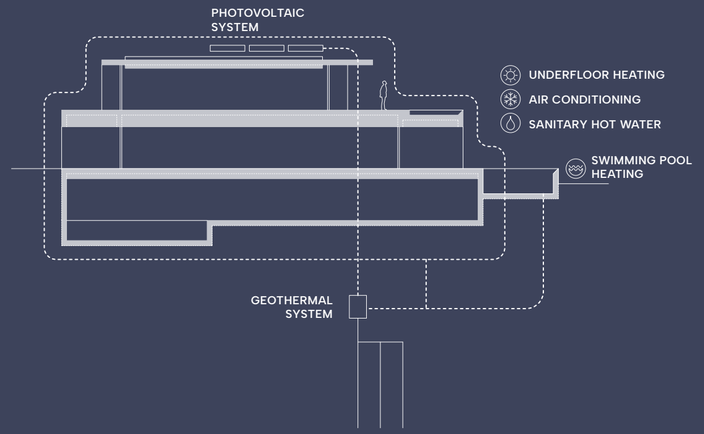
The installation can function as both a heating and cooling method. In the first case, the pump extracts energy from the ground and introduces it into the house in the form of heat. When the demand is for cooling, the machine evacuates the heat from the building and uses it to produce domestic hot water and to heat the swimming pool. Once these needs are met, the excess heat is sent to the ground.

PHOTOVOLTAIC SYSTEM

The electrical energy produced by the photovoltaic panels is an endless, renewable and non-polluting source. It contributes to sustainable development, since it consumes the daily energy produced by the sun. This energy can be used for self-consumption or be fed into the Spanish electricity grid for later compensation. During periods of low solar radiation, the energy that has been accumulated during the light periods is used. The building will be energetically self- sufficient and will obtain surplus energy to charge vehicles.

BATTERY SYSTEM

Batteries are one of the best self-sufficient systems. The energy collected in hours of non-energy use is accumulated to provide support in the necessary hours. The excess energy generated is accumulated for own use.



ENERGY SELF-SUFFICIENT VILLA
The home's two primary renewable energy sources (geothermal and solar photovoltaic) work together, making the villa an energy self-suficient building.

UNDERFLOOR HEATING
Indoor installations for underfloor heating.

AIR CONDITIONING
Indoor installations for air-conditioning by means of ducted units.

DOMESTIC HOT WATER
The energy produced by geothermal energy supplies heated domestic water.

HEATED POOL
Installations for heating of indoor swimming pool.

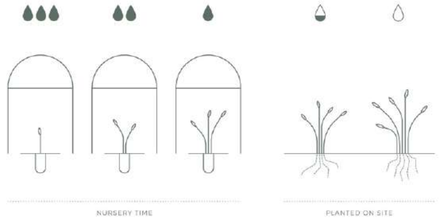
HYBRID SYSTEM
Hybrid system with battery storage.

LANDSCAPE

The strength of our Project lies within the power of the enclave and the architecture which the garden is displayed around, where it aims to function in an efficient and communicating way.

We work with drought torelant Mediterranean plants to minimise water consumption as much as possible, combining grasses with tree species such as Olea Europaea, Quercus ilex and Ceratonia siliqua.

SEASONAL CHANGE



BEFORE PLANTING, THE SPECIES ARE CAREFULLY SELECTED IN A NURSERY AND EXPOSED TO
SEVERAL CHANGING EPISODES OF WATER STRESS TO ENSURE A PROPER ADAPTATION TO AN
ENVIRONMENT WITHOUT ANY IRRIGATION

MATERIALITY AND INTERIOR DESIGN

MATERIALITY

SATE SYSTEM WITH SILICONE PAINT
Façade finishes
RAL 9016 matt color

LIMESTONE
Exterior floor
60×60
Sandblasted matt waterproof

NATURAL OAK WOOD
Interior wall covering
Open pore matt

INTERIOR DESIGN

ELECTRICITY
Complete electrical installation for high electrification

Complete electrical installation for a single-family house with high electrification. The installation includes lighting circuits, general electrical outlets, electrical outlets in rooms (bathrooms, household appliances, automated rolling shutters, air conditioning equipment, ventilation, water treatment and pressure group). The distribution of all the mechanisms will be made according to the electrical plan defined in the project execution phase.

LIGHTING AND DIMMING
Indoor lighting with LED strips and dimming with screen and blackout panels

Indoor lighting with LED strip mounted on profile, cabinet partition, stair handrail or headboard. In wet areas, an IP67 format is used and in areas in contract with water, such as swimming pools or water sheets, an IP68 format is used. To guarantee the darkness of the interior spaces, a roller blind is used, made of fiberglass mesh screen fabric with a double density PVC coating. It will be fireproof, according to DB-SI, and motorized. In bedrooms, there is also a roller blind made of blackout polyester fabric, whose abrasion resistance is 30.000 cycles, pilling resistance is 4-5 degrees, light fastness is 4-5 degrees, wash fastness is 4-5 degrees, opacity is 99.5%, sound absorption is 0.6 (DB-HR). It will be flaming retardant, according to DB-SI, and motorized.

ELEVATOR
Elevator with fully customized interior cabin design

Elevator with fully customized interior cabin design. The objective is to create a continuity with the rest of the spaces and materials of the rest of the house. The access door to the interior of the cabin is hidden by another door with identical conditions to the rest, thus achieving total homogeneity of the space.

WATER EVACUATION SYSTEM
Soundproofed and fire resistant downpipes and collectors with glued joint

Soundproofed and fire-resistant downpipes and collectors with glued joint. They have a Bs0d1 fire performance (according to UNE EN 12501) and an AR soundproofing system (according to CTE). It is guaranteed to be suitable for the evacuation of all types of water, including water from household appliances. The internal surface of the pipes is perfectly smooth, non- flammable and self-extinguishing. They are resistant to impact and corrosion and cannot be attacked by chemical agents contained in wastewater. It can be installed either hanging from the structure or under floors or slabs, as well as in chambers and inside partitions.

PLUMBING
Potable water supply pipe

Potable water supply pipe, consisting of multilayer cross-linked polyethylene, aluminium and high-density cross-linked polyethylene (PE-X/Al/PE-X). It is 32 mm in diameter and 3 mm thick. It is installed inside partition walls, false ceilings or under floors with a mechanical protection layer. These pipes guarantee compliance with current state regulations and their correct operation.

MECHANICAL VENTILATION
Mechanical ventilation with heat recovery

Mechanical ventilation system for homes with heat recovery, consisting of a heat recuperator (Zehnder model or similar) of excellent energy efficiency with very low electrical consumption; a ventilation duct, consisting of a semirigid, circular, multilayer pipe, with corrugated outer surface and smooth inner surface, made of high density polyethylene (HDPE/HDPE), grey, with Clinside treatment on the inner surface to prevent dust accumulation and facilitate cleaning, ComfoTube "ZEHNDER" or similar, 90 mm outer diameter; and a ventilation duct, formed by smooth PVC pipe, glued by means of adhesive.

SATE SYSTEM FACADES
External thermal insulation system

SATE system for exterior vertical thermal insulation, composed of expanded polystyrene insulation boards (EPS) type III or extruded polystyrene (XPS), in areas where the starting points are on pavement or floor. Is anchored with polypropylene COTESPIGA E-90, with expansion nail and is protected against weathering with a continuous coating or bicomponent COTETERM paste. In addition, it is reinforced with double 4×4 mm fiberglass mesh with SBR-LATEX impregnation to prevent cement attack. Finally, it has a COTETERM type decorative finish coat.

RENEWABLE ENERGY
Low-enthalpy geothermal energy and photovoltaic system

To make the villa energy self-sufficient, renewable energy is employed. This is achieved by using a geothermal system, photovoltaic system, a battery system and thermal insulation system. In addition, other resources are used, such as first-class materials and the adaptation of the orientations to the house program.

STRUCTURE AND FOUNDATIONS
Reinforced concrete structure and “caviti” floor system

The structure consists of reinforced concrete walls and floor slabs in collaboration with rolled steel profiles in the form of slabs and structural walls. In the areas in contact with the ground, a “caviti” type ventilated floor system is used. The foundations and structure will be built in accordance with current regulations.

ROOFTOP
Non-trafficable, non-ventilated flat roof

Conventional type gravel roof, non-trafficable and non-ventilated, with a slope greater than 1%. Slopes are formed with sills, valleys, and joints. There is a layer of cellular concrete based on cement and plasticizing-aerating additives, with a regularization layer of cement mortar. The vapor barrier is a bituminous film with APP plastomer additives, LA-30-AL, applied with anionic asphalt emulsion. Thermal insulation is provided by extruded polystyrene panels (XPS panels). The waterproofing is a single-layer, adhered type, formed by a layer of bitumen modified with SBS elastomer, LBM(SBS)-40-FP. The separation layer under the protection is a polypropylene-polyethylene geotextile and the protection layer is a volume of washed white marble boulders, with an average thickness of

FENCING
Galvanized steel sheet, lacquered in matt white

The fencing and gates are made of a steel profile structure, paneled with 3mm thick galvanized steel sheet and lacquered in matt white. The rest of the fence will be a metal structure covered by vegetation. The vehicle access gate is motorized with remote control. The pedestrian access includes a video door entry system and mailbox. These fencing elements will integrate the different installations for the connections, counters, and other functionalities which, according to the regulations, must be accessible from the public road.

INTERNAL COMPARTMENTALIZATION
Gypsum plasterboard partitions

Partition formed by a structure of 48/70mm wide galvanized steel sheet profiles, based on crossbars (horizontal elements) and uprights (vertical elements) with a separation between axes of 400 mm. Laminated gypsum boards are screwed to both sides (composition to be defined in the execution project). These boards will be water-repellent if the environment with which they are in contact is humid, such as bathrooms or toilets.

INTERIOR CARPENTRY. DOORS
Hinged door in matt white lacquered MDF

Interior hinged doors, made of solid MDF, lacquered in factory and with a thickness of 50mm. Wall paneling is flush from floor to ceiling. They include an aluminum frame that covers the entire dimension of the partition. They include a magnetic opening system, installed with a plate that is attached to the sheet material.

INTERIOR CARPENTRY. CABINETS
Folding cabinets made of lacquered MDF

Included in the project modules type M, modules type D, considered as extras.
Hinged cabinets, which dimensions will be specified in the execution project, according to the carpentry details. They are made of 19mm lacquered MDF boards. The inner body is made of 16mm melamine and 19mm thick shelves, with rounded edges. The interior and the exterior will be lacquered in the factory. The opening of the doors is mechanical, with a push-type system. In addition, the ceiling is cut out for the housing of LED lighting and for the power supply and return of the air conditioning system.

SWIMMING POOL
Swimming pool with a ceramic finish that imitates limestone

The pool is finished with a porcelain material that imitates limestone, to achieve the maximum visual continuity of the space but guaranteeing the optimal conditions of this volume in contact with the water. It also has LED strips fit for contact with the water, which automatically light up at a set time of day. This type of lighting is known as IP68.

ALUMINIUM CARPENTRY
Aluminium carpentry with TB and matt silver anodized aluminum finish

Recessed aluminum joinery with thermal break (TB). It has a matt silver anodized aluminum finish and shall be dimensioned according to the drawings. It consists of a sliding panel, placed on previously washed pre-frames, a masonry plinth, and a perimeter seal. It contains stainless steel fastening hardware, pre-frames, pre-frame levelling brackets, galvanized steel lintel for anchoring the carpentry frame to the underside of the slab, with the possibility of height adjustment of the substructure, as well as the installation of devices that allow the absorption of possible deferred deflections.

EXTERIOR CARPENTRY. ACCESS DOOR
Aluminium carpentry with TB

The access door to the house has an identical format to the aluminum carpentry, which is recessed aluminum joinery with thermal break (TB). It has a matt silver anodized aluminum finish and shall be dimensioned according to the drawings. It consists of a sliding panel, placed on previously washed pre-frames, a masonry plinth and a perimeter seal. It contains stainless steel fastening hardware, pre-frames, pre-frame leveling brackets, galvanized steel lintel for anchoring the carpentry frame to the underside of the slab, with the possibility of height adjustment of the substructure, as well as the installation of devices that allow the absorption of possible deferred deflections. The garage access door will be motorized.

KITCHEN
Kitchen designed with integrated appliances and solid surface countertops

In the kitchen, the cabinet is made of MDF wood panels, matt white lacquered, 19 mm thick. The worktop is made of solid surface, 12 mm thick. It contains the sink, which is made of the same material, the integrated hob with built-in fume extraction. This eliminates the need to place a smoke outlet to the outside. The refrigerator, microwave, dishwasher, and oven are integrated inside the cabinets.

BATHROOMS AND TOILETS
Solid surface and water-repellent gypsum plasterboard coating

In the vertical cladding of the bathrooms and toilets, there is a 12 mm thick solid surface base up to 1.05 m high and water resistant. In the shower, this material reaches in vertical a higher height, which is aligned with the mirror, with porcelanic shower tray. The rest of the height is resolved with 15mm thick waterproof laminated gypsum boards, painted with matte water-based enamel. The flooring used in the bathrooms will be the same as the rest of the house and the ceilings are water-repellent laminated gypsum boards. The furniture elements and washbasins are made of solid surface.

FURNITURE INCLUDED
Furniture and equipment included in the architectural project

The following furniture and equipment is included in the architectural project: 8 built-in closet modules in the master bedroom, 5 built-in closet modules in the rest of the bedrooms, all the closets in the laundry room and the cinema room, all the furniture in the two kitchens, a furniture unit in the living room delimitating spaces, built-in closets in the gym area and built-in closets in the multipurpose room in the basement. The rest of the pieces not indicated in the previous section, such as high or low auxiliary cabinets, sofas, tables or chairs will be part of the interior design project, which can be contracted independently.

Element **SWITCH MECHANISM**
Finish **IVORY WHITE / ALPINE WHITE / GREY / BLACK**

Element **SWITCH MECHANISM**
Finish **WHITE / SAND / BLACK**

Element **PLUG-IN MECHANISM WITH USB TYPE A AND C**
Finish **IVORY WHITE / ALPINE WHITE / GREY / BLACK**

Element **PLUG-IN MECHANISM WITH USB TYPE A AND C**
Finish **IVORY WHITE / ALPINE WHITE / GREY / BLACK**

KITCHEN

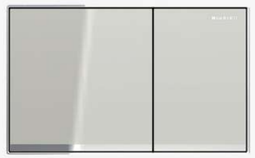
Appliances **GAGGENAU**
Location **DIRTY KITCHEN & SOCIAL KITCHEN**
Characteristics **S200 SERIES**

Element **KITCHEN FAUCET**
Trade marck **GROHE**
Commercial reference **PURE**
Finish **STAINLESS STEEL**

BATHROOM

Element **FAUCETS**
Trade marck **NOBILI**
Finish **INOX FINISH**

Element **RAINSHOWERS**
Trade marck **NOBILI**
Finish **INOX FINISH**



Element **PUSH BUTTON**
Trade marck **GEBERIT**
Commercial reference **SIGMA60**
Finish **CHROME**

Element **TOILET**
Trade marck **ROCA INSPIRA ROUND**
Finish **BEIGE COLOR**

FRAN SILVESTRE ARQUITECTOS

INTERNATIONAL PROJECTS

Los Ángeles, USA
Miami, USA
Sarasota, USA
New York, USA
Rio de Janeiro, Brazil
Lisbon, Portugal
Lagos, Nigeria
Tirana, Albania
Vis, Croatia
Belgrade, Serbia
Brussels, Belgium
Beijing, China
Quindgao, China
Zibo, China
Santorini, Greece
Corfu, Greece
Moscow, Russia

Lugano, Switzerland
Bologna, Italy
Venice, Italy
Bari, Italy
Montguyon, France
Koh Samui, Tailand
Usultán, El Salvador
Armavir, Armenia
El Cairo, Egypt
Byron Bay, Australia
Hyderbard, India
Goris, Armenia
Abu Dhabi, United Arab Emirates
Miami, USA
Washington D.C, USA
Faro, Portugal

The approach of the projects arises from a double commitment: the will to give a technical response to a specific context and the desire to seek beauty through the built work, pursuing the satisfaction of all those who actively particiate in the development, in users, but also collaborators, builders and designers.

Winner of multiple awards and with projects built on five continents, Fran Silvestre Arquitectos is the studio with the most followers on social networks and leads the podium of design and elegance.

STERN