

DESIGN AND ACCESS STATEMENT
INCLUDING HERITAGE STATEMENT

FOR

INTERNAL ALTERATIONS AND REFURBISHMENT OF SPA AREA

AT

WHATLEY MANOR HOTEL AND SPA, TWATLEY, MALMESBURY, SN16 0RB

1957.21 - D&A

08.01.2026 – ISSUED FOR LISTED BUILDING CONSENT

INTRODUCTION

MLDE have been appointed by Mr. Christian de Coulon of Whatley Manor Hotel and Spa to prepare the required documentation and submit an application for Listed Building Consent for internal alterations and refurbishment of the hotel's SPA area.

SIGNIFICANCE OF BUILDING and HERITAGE STATEMENT

The NPPF defines the Significance as "The value of a Heritage Asset to this and future generations because of its Heritage Interest. The interest may be architectural, or historic. Significance derives not only from heritage asset's physical presence, but also from its setting" and as such it will be discussed here.

Whatley Manor is an architecturally Significant Grade II Listed Building situated in Brokenborough Parish on the north of the Wiltshire Council and it is Listed under Historic England Entry Number: 1023196.

The building was once a country house, but it is now a hotel. It developed around a C18, farmhouse core, built in coursed rubble and U shaped in plan. The building was extensively extended and altered in 1920s by Septimus Warwick of London, appointed by H C Cox, the owner at the time. Coursed rubble stones and stone dressing to fenestration were introduced to original parts of farmhouse and new parts were built in squared rubble with flush dressed stone quoins, stone chimney stacks and stone tiled roofs. The two and three light, leaded wooden casements and stone mullioned casements with leaded lights are typical for this early C20 period of the development.

The interiors have a number of significant features from this period, particularly in its two drawing rooms with very high quality panelling and Palladian style door sets and a very elegant staircase. Some original Jacobean panels are present in the interior. These panels pre-date even the oldest parts of the building significantly and it can only be concluded that they were brought in from another property.

The original building was arranged around a courtyard approximately orientated Northwest/Southeast. The Northwest end was a main residential part of the original house whilst the Southeast corner consisted of converted stabling running along three sides of adjoining "Stable Yard". Converted stabling originally included a small kitchen adjacent to the dining room of the main building.

The main block of the building, containing older parts of the original farm house, is situated at the centre of the South end protruding substantially forward from the Southwest elevation in relation to the West block. The block is two story high with an attic space. Two chimneys are positioned centrally on the ridge line, one is of dressed stone and the other of rubble, in two steps and with chimney pot. The ridge line drops slightly in height to the South end and the cross gable protrudes forward slightly. There are C19 bay windows on the ground floor, all are mullioned casements in simple dressed stone surrounds, squared and not keyed to the rest of the wall. Two storey bay was added to protruding part of elevation in early C21 renovation when Whatley Manor was again extensively refurbished, added to and altered to create a high quality hotel and spa complex.

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The new restaurant on the ground floor, kitchen and accommodation wing were built to the east side of the entrance courtyard in the early C21 redevelopment/refurbishment project. It was designed to reflect the existing group on the Northwest side in terms of scale, character and massing. The original kitchen was removed during this period and a new Orangery was added.

On one side of the Stable Yard, stable buildings were refurbished and converted into offices. At the same time the Health Spa has been built in the position of the former orchard. It is a contemporary building with grass roof. The Spa area incorporates a few smaller parts of refurbished stables on the other side of the stable yard, on the side of carpark and towards gardens, but is mostly built in the early C21.

The impression of this high quality hotel is one of a conglomeration of buildings developed over many years to form a harmonious entity. In reality, the majority of the buildings have developed either in early C20 or early C21.

EXISTING SPA

Whatley Manor Spa has since it's opening provided a unique leisure offer and differentiated itself within the leisure market as a true cutting edge "Spa" experience. It offered over years unique blend of Thermal Baths and Hydro-therapy attractions blended with wet/dry body treatments and facial treatments, all taking place in a high quality environment.

Spa area consists of:

- Hydrotherapy Pool, free in form, extending outside of the building, with hydro-therapy attractions such as whirl tub and massage jets all overlooking the hotel garden and woodland.
- Thermal Suite – Laconium, Caldarium, Camomile Grotto and Sauna, together with Salt scrub showers.
- Treatment Suite – Treatment rooms are divided between dry body treatments and beauty therapy services and Hydro-baths/Flotation Pool. A separate VIP treatment suite for two is situated within an old refurbished stable incorporated in new SPA development.
- Tepidarium with heated stone recliners for relaxation.
- Spa Lounge area for light refreshments.

In Structural Engineering terms, the Spa is created from set of concrete columns and beams supporting RC slabs, thus creating in spatial terms big open spaces. Subdivisions are created by proprietary thermal cabins technically equipped with all necessary services permitting the "experiences". The cabins were brought in as prefinished elements and installed between the columns. Various stud walls, plastered or tiled, weave between the cabins creating an organically shaped space and providing a small Plantroom compartments required to support the cabins and service voids.

The Spa has been built over 20 years ago and proprietary cabins and their associated equipment are reaching the end of their serviceable life. The nature of some of the treatments happening in treatment rooms have changed also over that period of time and they need to be refurbished.

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The floor finishes, mostly of limestone or mudstone tiles, had considerable wear through the cleaning with strong solvents to ensure the required level of the cleanliness and require replacement on safety as well as aesthetic grounds.

Mechanical and Electrical services, particularly ventilation, cooling, heating and sound system require refurbishment to allow for an optimal air temperature summer and winter, whilst the treatments are taking place.

PROPOSED WORKS

Proposed works comprise of:

- Removal of the old proprietary thermal cabins: Laconium, Caldarium, Camomile Grotto, Sauna, Snail showers and all associated studwork and services.
- Insertion of new proprietary, fully insulated and finished Thermal Suite cabins by Klafs comprising of: Sanarium, Espuro, Salt Room, Shower Sauna, Steam Room and Ice Fountain Stalagmite, all with associated services and stud walls lined with Buscot Limestone mosaic and rectangular tiles.
- Removal of Snail Showers and re-erection in slightly different position to suit the plan layout of Klafs cabins. The drainage to be adjusted accordingly (for all drainage alterations in SPA zone please read in conjunction with e3 drawing No: 4929-E3C-SPA-00-D-2-9060 and MLDE drawing 1957.21-DR-001.)
- Creation of new organically shaped corridor between the cabins using studwork and finished in Buscot Limestone mosaic tiles.
- Removal of the existing limestone floor finishes eroded by cleaning chemicals, structural topping containing water based underfloor heating and any degraded insulation.
- Replacement of any degraded insulation with new closed cell thermal insulation.
- Installation of new structural topping and new water based underfloor heating.
- Replacement of the removed floor finishes with new Buscot Limestone Floor Tiles, tumbled and etched (by Artisans of Devizes), matting and grout matching in colour to the Limestone. The floor finishes to be replaced throughout the Tepidarium, corridor areas of the SPA and in all treatment rooms.
- Walls in Tepidarium to retain all existing stone tile lining to 1060mm height. The walls above the tiling currently plastered in Tadelakt plaster (1.5-3mm thk) to have the plaster removed and replaced with new Tadelakt plaster, colour to be agreed.
- Refurbishment of existing VIP suite consisting of Treatment Rooms 5&6 and interconnecting Lobby: The existing stud walls separating the showers from the lobby to be fully removed and two separate treatment rooms, each with its own shower to be created. The suite is situated in a refurbished stable. However, there will be no alterations to the fabric of historic walls of the suite. The only alterations involved affect C21 studwork and C21 Tadelakt plaster.

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Alterations, to the floors are covered above. All existing C21 tiled wall linings are to be removed and new wall finishes in Buscot Limestone Parquet, tumbled and etched finish, (by Artisans of Devizes) to be installed up to 160mm.

Existing Tadelakt plaster on ceilings and walls of the VIP suite, to be removed and plastered with white plaster decorated with three coats of Crown Trade Clean Extreme Matt. Colour to be confirmed.

New Wall Linings to be installed in splash zones and finished in Pêche Travertine with Pêche & Crema border, supplier Artisan of Devizes up to 1060 mm above FFL and in full height of the wall parallel with the bed and under the coat hanging rack.

New ceramic tiles to be installed on walls of new shower room (precise tile model to be confirmed to match with supplied Buscot limestone colour.)

Walls in Treatment Rooms 1-4 & 7 to have existing plaster stained by treatment oils removed and new white plaster applied and decorated with three coats of Crown Trade Clean Extreme Matt. Colour to be confirmed.

New Wall Linings to be installed in splash zones and finished in Pêche Travertine with Pêche & Crema border, supplier Artisan of Devizes up to 1060 mm above FFL and in full height of the wall parallel with the bed and under the coat hanging rack. Stone to be sealed with 2 coats of breathable "Natural Floor Seal" by Floorseal.

- Suspended ceiling in Treatment Rooms 1-4 to be washed with sugar soap to remove any oily stains and prepared for decoration. Decoration to consist of one coat of primer and undercoat and three top coats of Crown Trade Clean Extreme Matt, Colour to be confirmed.
- Two store rooms situated between Treatment Rooms 2&3 to be joined to create Treatment Room 7. Existing studwork wall separating the two stores to be removed. Floor, walls and suspended ceiling to be finished to match Treatment rooms 1-4.
- SPA Lounge to have light fittings upgraded and to be generally decorated. Decoration to consist of one coat of primer and undercoat and three top coats of Crown Trade Clean Extreme Matt, Colour to be confirmed.
- Refurbishment of M&E services covered by this application consists of removal of plant and machinery supporting the operation of the existing thermal experience cabins, currently situated in small plantrooms between the cabins, and installation of the similar machinery providing steam, foam, blowing the small salt particles and air supply etc.. to serve the newly proposed cabins.

The new plant elements would be situated again in small plant rooms created between new cabins.

Existing drainage to the spa is typically via gullies and channel drains with outlets through the suspended ground floor modern C21 reinforced concrete slab into the existing, large basement plantroom, where it is routed along the concrete ceiling soffit to soil pipes exiting the basement, ultimately discharged to the site treatment plant.

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It is proposed that the new scheme is drained in the same way. New penetrations will be diamond core drilled through the reinforced concrete slab, and drainage will be collected via reconfigured drain pipes suspended from the soffit of the ground floor RC slab, and discharged to the existing soil pipe outlets from the existing plantroom.

Redundant penetrations through the suspended C21 concrete slab will be repaired with concrete repair products as appropriate. Foul drainage from the sinks and newly installed showers within the refurbished treatment rooms will be connected to the existing below ground drainage within the rooms themselves.

RELEVANT PLANNING POLICY CONTEXT

NPPF "Conserving and enhancing the historic environment" Section 16 defines the Government's policies concerning heritage assets and sustainable development.

Section "Proposals affecting heritage assets" paragraph 203 gives guidance to local planning authorities as to what to take into account when determining an application: desirability of sustaining and enhancing the significance of heritage assets and putting them to viable uses consistent with their conservation, the positive contribution that conservation of heritage assets can make to sustainable communities including their economic vitality, the desirability of new development making a positive contribution to local character and distinctiveness. "

Section "Considering potential impacts" Paragraphs 207 & 208 define the approach required in evaluating and balancing any harm which would be caused to a heritage asset against the potential public benefits which might be achieved.

Wiltshire Council's Core Strategy Policy CP58 "Ensuring the conservation of historic environment" requires that the designated heritage assets and their setting will be conserved and where appropriate enhanced, in manner appropriate to their significance.

Wiltshire Council's Core Strategy Policy CP57 "Ensuring high quality of design and place shaping" requires a high standard of design in all new developments and alterations.

EVALUATION OF THE PROPOSAL AGAINST RELEVANT PLANNING POLICIES

The critical question for the evaluation of this proposal against the relevant Planning Policies is the one of impact of the proposal on the Significance of the Historic Asset.

Whatley Manor is Grade II Listed Building. It is a fine example within the category of Grade II Listed Buildings and as such can be considered a Significant Grade II Listed Building.

The part of the Grade II Listed Building affected by the works is mostly C21 SPA extension from which the proprietary C21 thermal cabins are being removed as they are reaching the end of their serviceable life and are being replaced with new cabins of the same nature to continue provision of SPA facility to hotel users and general public.

All finishes proposed for removal are C21 Mudstone or Limestone tiles damaged by cleaning chemicals in the Spa environment over twenty years period. There is no proposal to remove any fabric older than C21.

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The loss should also be weighed against the public benefit which would be gained by refurbishment in line with the requirements of Paragraphs 207 & 208 as well as positive contribution the change would bring to economic vitality of the hotel and other local services in line with Paragraph 203.

The proposal would enable Whatley Manor to continue to provide this amenity to the local community, which is clearly highly desirable.

The proposed design would create minimal impact possible on Historic Fabric and satisfy the requirements of Strategy Policy CP57.

CONCLUSION

Whatley Manor is an architecturally Significant building within the category of Grade II Listed Buildings, situated in Brokenborough Parish on the north of the Wiltshire Council.

The Hotel has a Health SPA facility built in the position of the former orchard in the early C21 redevelopment/refurbishment project.

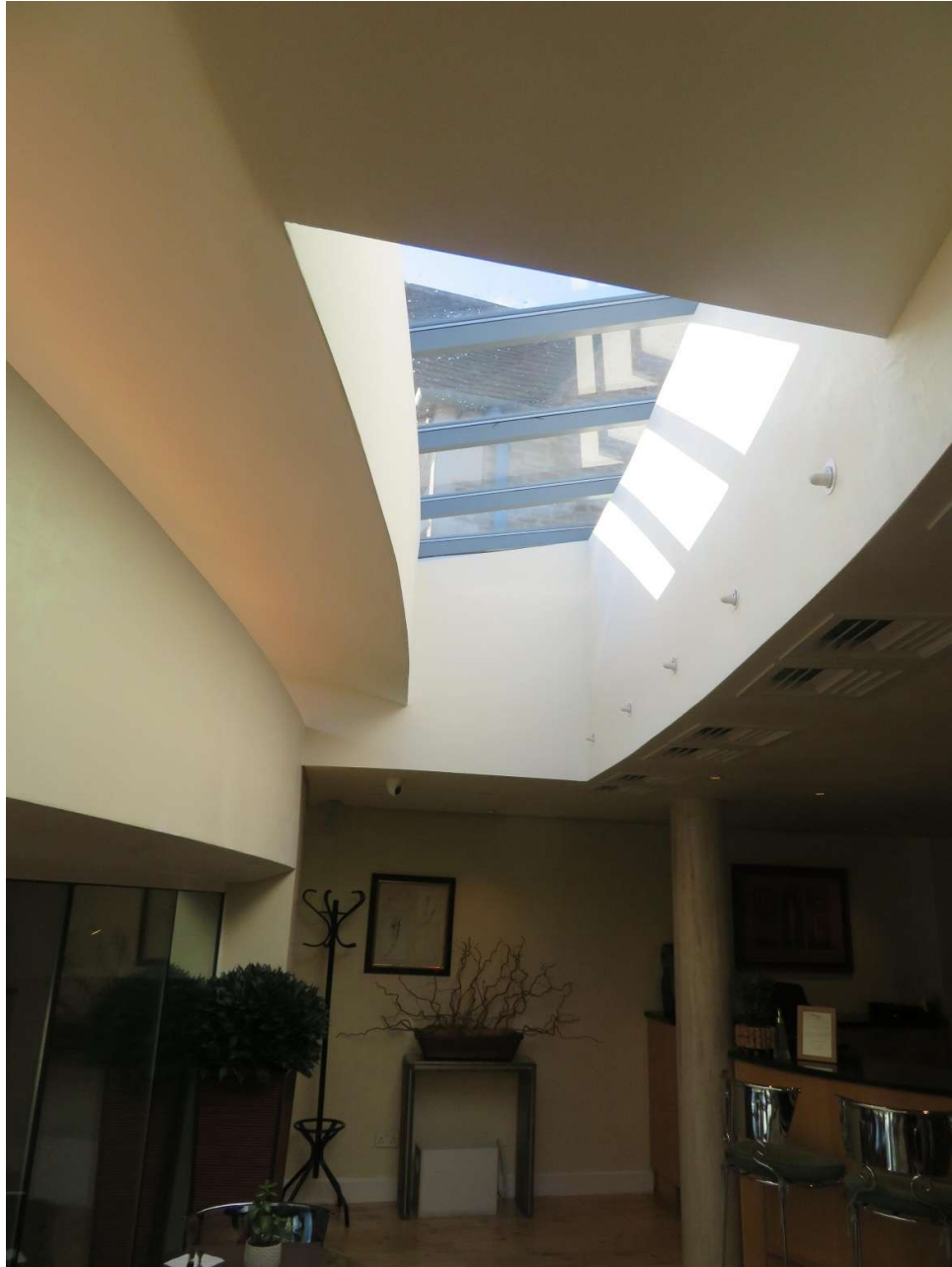
The SPA has provided a unique leisure offer to all the hotel guests and local users for more than twenty years and differentiated itself within the leisure market as a cutting edge experience.

The SPA facility is now over twenty years old and in need of refurbishment as some of the thermal cabins and associated services have reached the end of their serviceable life.

It is considered that the refurbishment of the SPA is in line with the guidance given in NPPF. The Applicant hopes that the proposal will gain approval of the Local Planning Authority.

APPENDIX I

PHOTOGRAPHS



PH01



PH02



PH03



PH04



PH05



PH06



PH07



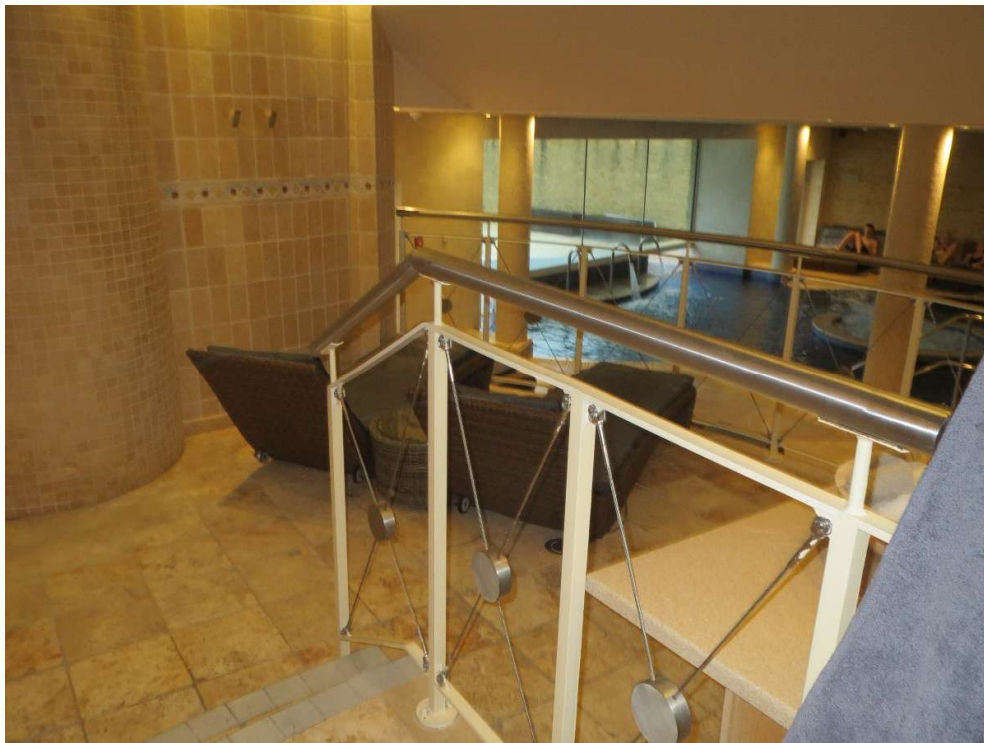
PH08



PH09



PH10



PH11



PH12



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PH14



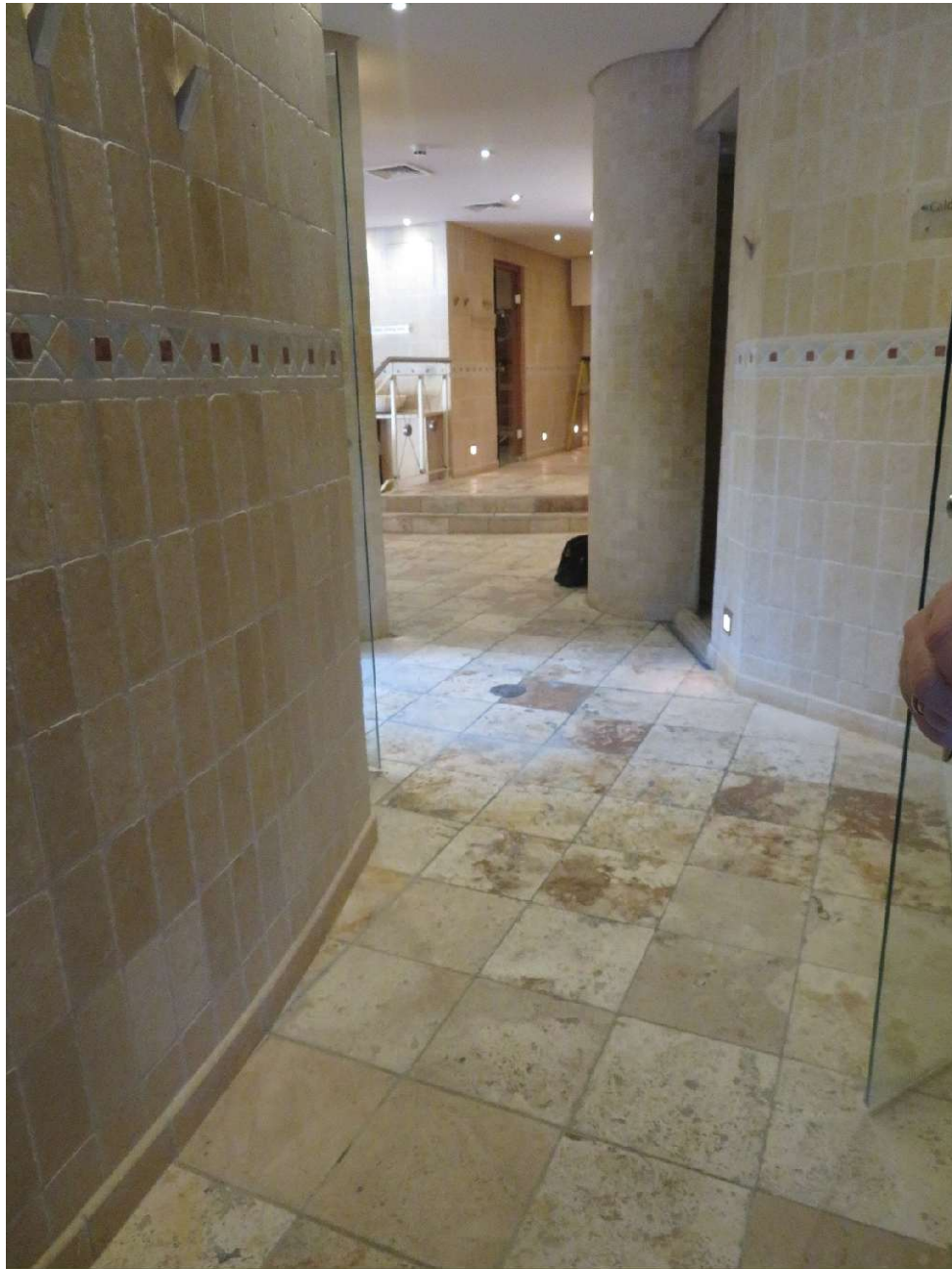
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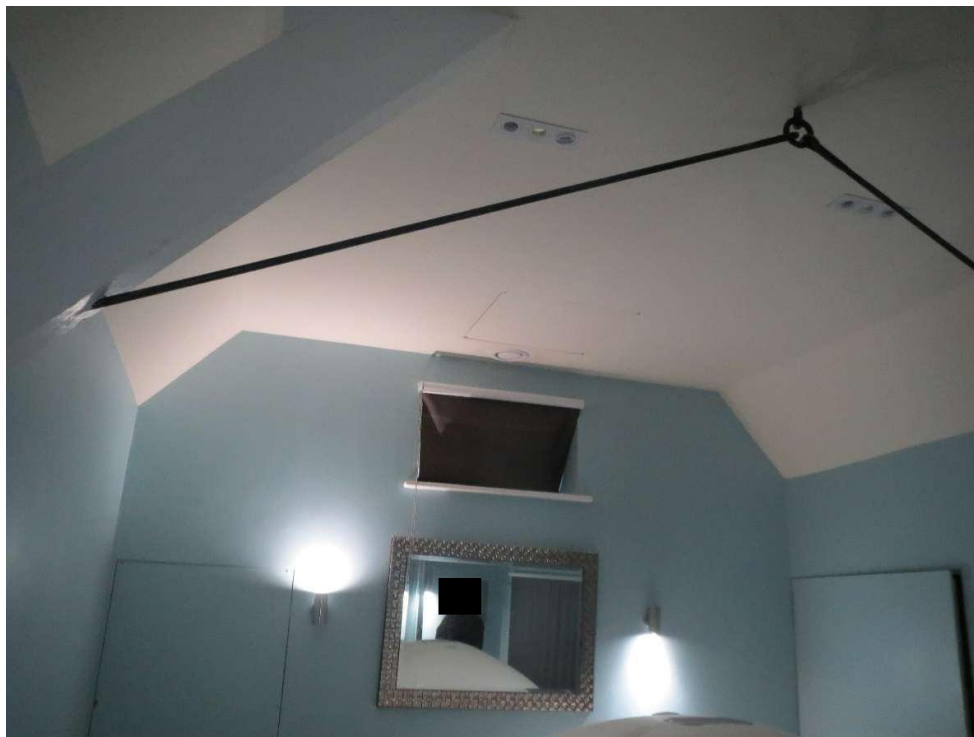
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PH18



PH19



PH20

APPENDIX II

KLAFS CABINS EXAMPLE PHOTOGRAPHS AND PRELIMINARY TECHNICAL SPECIFICATION

m a r k l o v e l l d e s i g n e n g i n e e r s

KLAFS CABINS – EXAMPLE PHOTOGRAPHS

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Principal: Mark Lovell M.Sc. B.Sc (Hons) C.Eng.FIED FICE

Associate: Sandra Lovell Dipl. Ing. Arch.



SANARIUM SAUNA



ESPURO – PH1



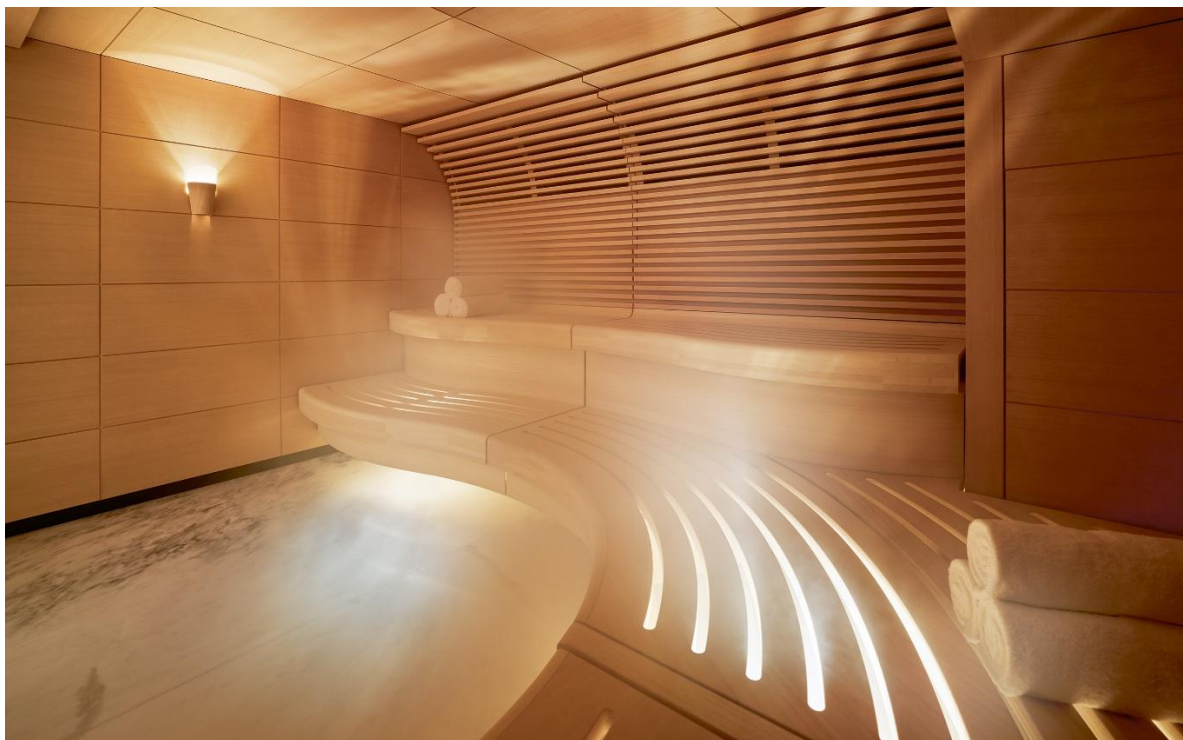
ESPURO – PH2



SALT INHALATION ROOM



COLD BUCKET SHOWER



SAUNA



ICE FOUNTAIN STALAGMITE – PH1

WHATLEY MANOR

Preliminary Technical Specification

Project No.: 4967					
Document: Preliminary Technical Specification					
Document Status: For REVIEW					
Document Reference: KLAFS-TECHSPEC-4967					
Based on:					
Revision	Prepared				Item / change description
	VD	05/08/25			
A	VD	30/10/25			Revised dimensions
B	VD	22/12/25			Revised dimensions
C					
D					

LIMITATION OF LIABILITY

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M&E REQUIREMENTS

Sauna

Size & Volume	Size: 2.95m Depth x 5.14m Width x Height: 2.32m Volume: ~35m ³	
Design temperature	80°- 100°C	
Design humidity %	5%-20%	
Proposed usage	10-16 hours per day (commercial use)	
Electrics	Electric Sauna Heater	3/N/PE (20kW) power supply with RCD isolated locally to plant equipment. 3x25A circuit protection.
	Control system	1/N/PE (1kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection.
	Lighting	1/N/PE power supply with RCD isolated locally to plant equipment. 16A circuit protection.
	Vitality Boost	1/N/PE (1kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection.
Ventilation	Exhaust Air	Via high level 2 no. 125mm duct at high level. Mechanical air extract capable of ~5-7 air changes per hour via fan/damper accessible area. Continuation to main system by others. Ducting capable to withstand hot air.
	Supply Air	Via slot in baseframe, ventilation of void space surrounding the cabin.
Other	Emergency button	Interface to the alarm system "by others" located in the plant room
	Conduits	6 No. 2" Conduits running from plant space to cabin for cabling (tray as an alternative)

M&E REQUIREMENTS

Sanarium

Size & Volume	Size: 2.1m Depth x 2.6m Width x Height: 2.25m Volume: ~13m ³	
Design temperature	70°- 80°C	
Design humidity %	20%-30%	
Proposed usage	10-16 hours per day (commercial use)	
Electrics	Electric Sauna Heater	3/N/PE (9kW) power supply with RCD isolated locally to plant equipment. 3x16A circuit protection.
	Control system	1/N/PE (1kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection.
	Steam Generator	3/N/PE (3.8kW) power supply with RCD isolated locally to plant equipment. 3x16A circuit protection.
	Lighting	1/N/PE power supply with RCD isolated locally to plant equipment. 16A circuit protection.
Water	Steam generator	1 no. 3/4 inch cold water supply within plant space including accessible isolating valve
		Water quality: untreated drinking water with a conductivity of 125 to 1250 µS/cm or demineralized water
Drain	Steam generator	Drain dia. 50mm near steam generator in the plant cupboard in a suitable material to take 100°C water discharging
	Other	Drain inside and in front of the steam room
Ventilation	Exhaust Air	Via high level 125mm duct at high level. Mechanical air extract capable of ~7 air changes per hour via fan/damper located in the accesible area. Continuation to main system by others. Ducting capable to withstand hot/moist air.
	Supply Air	Via slot in baseframe, ventilation of void space surrounding the cabin.
Other	Emergency button	Interface to the alarm system “by others” located in the plant cupboard
	Conduits	6 No. 2" Conduits running from plant space to cabin for cabling (tray as an alternative)

M&E REQUIREMENTS

Steam room

Size & Volume	Size: 2.2m Depth x 4.5m Width x Height: 2.35m Volume: ~ 23m ³
Design temperature	43°- 48°C
Design humidity %	90-100%
Proposed usage	10-16 hours per day (commercial use)
Electrics	Steam generator 3/N/PE (18,1kW) power supply with RCD isolated locally to plant equipment. 3x35A circuit protection. Control system 1/N/PE (1kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection. Lighting 1/N/PE (1kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection. Seat E-heating 1/N/PE (2kW) supply isolated locally to plant equipment. 16A circuit protection.
Water	Steam generator 1 no. 3/4 inch cold water supply within plant space including accessible isolating valve Water quality: untreated drinking water with a conductivity of 125 to 1250 µS/cm or demineralized water Kneipp Hoses 2 no. ½ inch cold water supply for handhose high level within cabin location
Drain	Steam generator Drain dia. 50mm near steam generator in the plant cupboard in a suitable material to take 100°C water discharging Other Drain inside and in front of the steam room
Ventilation	Exhaust Air Via high level 125mm duct. Mechanical air extract capable of ~5 air changes per hour via fan/damper located in accessible area. Continuation to main system by others. Ducting to be watertight. Supply Air Via high level 125mm duct. Mechanical air supply via fan/damper located in accessible area.

Whatley Manor	Plant cupboard	Heat Experience Ventilation of plant cupboard (recomended temperature 25 C and 65% humidity.)
Other	Emergency button	Interface to the alarm system “by others” located in the plant room
	Conduits	<i>6 No. 2" Conduits running from plant space to cabin for cabling</i> (tray as an alternative) Service route from plant space to cabin to allow for the conduits outlined above and the following: 1 No. Lagged Steam Pipe (approx. 95mm)

M&E REQUIREMENTS

Espuro

Size & Volume	Size: 2.2m Depth x 2.6m Width x Height: 2.2m Volume: ~ 12m³	
Design temperature	43° - 48°C	
Design humidity %	90-100%	
Proposed usage	10-16 hours per day (commercial use)	
Electrics	Steam generator	3/N/PE (8kW) power supply with RCD isolated locally to plant equipment. 3x16A circuit protection.
	Control system	1/N/PE (1kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection.
	Lighting	1/N/PE (1kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection.
	Seat E-heating	1/N/PE (2kW) supply isolated locally to plant equipment. 16A circuit protection.
	Foam generator	1/N/PE (1kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection.
Water	Steam generator	1 no. 3/4 inch cold water supply within plant space including accessible isolating valve Water quality: untreated drinking water with a conductivity of 125 to 1250 µS/cm or demineralized water
	Foam generator	1 no. 3/4 inch cold water supply within plant space including accessible isolating valve
	Kneipp Hoses	2 no. ½ inch cold water supply for handhose high level within cabin location
Drain	Steam generator	Drain dia. 50mm near steam generator in the plant cupboard in a suitable material to take 100°C water discharging
	Other	Drain inside and in front of the steam room
Ventilation	Exhaust Air	Via high level 125mm duct. Mechanical air extract capable of ~5 air changes per hour via fan/damper located in accessible area. Continuation to main system by others.

Ducting to be watertight.

Supply Air

Via high level 125mm duct. Mechanical air supply via fan/damper located in accesible area.

Plant cupboard

Ventilation of plant cupboard (recomended temperature 25 C and 65% humidity.)

Other

Emergency button

Interface to the alarm system "by others" located in the plant room

Conduits

6 No. 2" Conduits running from plant space to cabin for cabling (tray as an alternative)

Service route from plant space to cabin to allow for the conduits outlined above and the following:

1 No. Lagged Steam Pipe (approx. 95mm)

M&E REQUIREMENTS

Salt room

Size & Volume	Size: 2.2m Depth x 2.7m Width x Height: 2.26m Volume: ~ 21m ³	
Design temperature	30°C (ambient air assumed, no heating provided by thermal specialist)	
Proposed usage	10-16 hours per day (commercial use)	
Electrics	Microniser	1/N/PE (2kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection.
	Air intake dryer	1/N/PE (1kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection.
	Medical grade compressor	1/N/PE (2kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection.
	LED Light	1/N/PE power supply with RCD isolated locally to plant equipment. 10A circuit protection.
Ventilation	Exhaust Air	Via high level 125mm duct. Mechanical air extract capable of ~5 air changes per hour via fan/damper located in accesible area. Continuation to main system by others.
	Supply Air	Via high level 125mm duct. Mechanical air supply capable of ~5 air changes per hour via fan/damper located in accesible area. Continuation to main system by others.
Other	Emergency button	Interface to the alarm system "by others" located in the plant room
	Conduits	6 No. 2" Conduits running from plant space to cabin for cabling (tray as an alternative)

M&E REQUIREMENTS

Experience Showers and Bucket Shower

Electrics	Experience shower 1	1/N/PE (1kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection.
	Experience shower 2	1/N/PE (1kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection.
Water	Experience shower 1	1 no. 3/4 inch cold + hot water supply isolated locally to the shower panel in the plant room.
	Experience shower 2	1 no. 3/4 inch cold + hot water supply isolated locally to the shower panel in the plant room.
	Bucket shower	1 no. ½ inch cold water supply next to the bucket shower at high level
Drain	Experience shower 1	Drain dia. 50mm experience shower panel in the plant room Drain inside experience shower cubicle
	Experience shower 2	Drain dia. 50mm experience shower panel in the plant room Drain inside experience shower cubicle
	Bucket Shower	Drain inside bucket shower cubicle suitable for large immediate water discharge (circa. 15 litres)
Ventilation	Exhaust Air	Ventilation to comply with typical requirements for shower rooms
	Supply Air	Ventilation to comply with typical requirements for shower rooms
	Plant cupboard	Ventilation of plant cupboard (recommended temperature 25 C and 65% humidity.)

M&E REQUIREMENTS

Ice Room “Stalagmite”

Size & Volume	Size: 2.1m Depth x 3.2m Width x Height: 2.35m Volume: ~ 15.8m ³	
Design temperature	8-12°C (chilling maintained by the ice walls)	
Proposed usage	10-16 hours per day (commercial use)	
Electrics	Ice Unit “Stalagmite”	1/N/PE (1kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection.
	Ice Wall “Glacier”	3/N/PE (3kW) power supply with RCD isolated locally to plant equipment. 16A circuit protection.
	Lighting	1/N/PE power supply with RCD isolated locally to plant equipment. 10A circuit protection.
Water	Ice Unit Stalagmite	Cold water 1/2" for ice production Cold water 3/4" for cooling Water consumption (water cooled): 45l/h COOLING AT 10°C WATER TEMP. 70l/h AT 15°C WATER TEMPERATURE 5l/h ICEPRODUCTION AIR COOLED OPTION AVAILABLE
	Ice Wall “Glacier”	Cold Water 1/2" for ice buildup Cold water 3/4" for chiller (water cooled) AIR COOLED OPTION AVAILABLE
Drain	Ice Unit “Stalagmite”	Drain dia. 50mm under Ice Unit Drain dia. 50mm near ice wall chiller (water cooled)
	Other	Drain inside the room
Ventilation	Exhaust Air	Via high level 125mm duct. Mechanical air extract capable of ~3-5 air changes per hour via fan/damper located in accesible area. Continuation to main system by others.

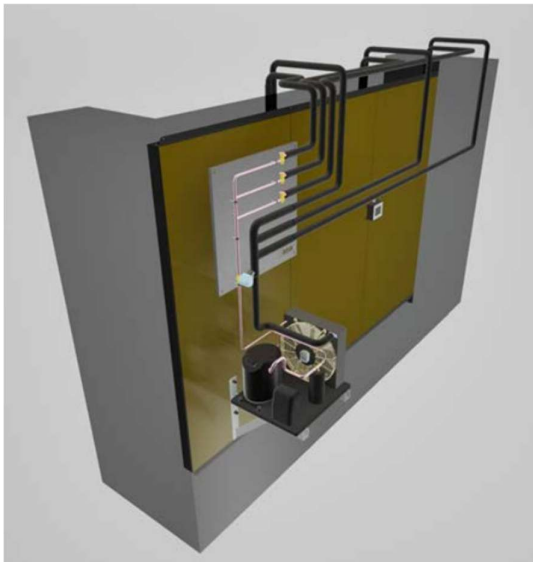
Supply Air

Via high level 125mm duct. Mechanical air extract capable of ~3-5 air changes per hour via fan/damper located in accessible area. Continuation to main system by others.

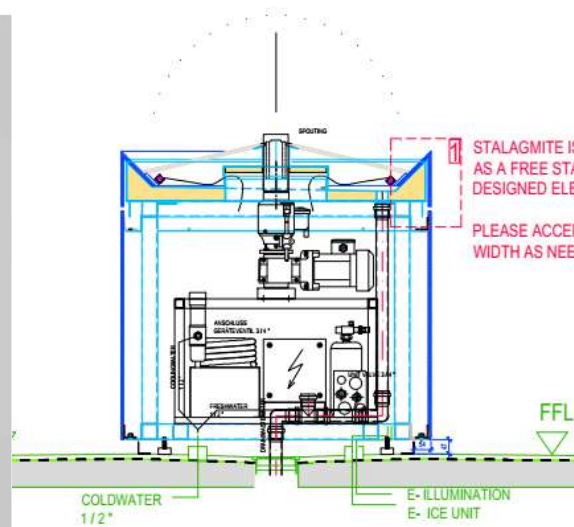
Other

Emergency button

Interface to the alarm system "by others" located in the plant room



Ice wall "Glacier" diagram (air cooled)



Ice unit "Stalagmite"