STEENSEN VARMING

Residential

About Us

Firm Foundations

We strive for technical perfection. We are driven to enable the best building design where functionality and wellbeing are paramount. We demand at least as much from ourselves as our clients and collaborators have come to expect.

We grew up with the Danish design approach to refinement and longevity in our formative years. Since our foundation, in 1933, we have attracted and employed gifted people with a shared ethos and commitment to optimal design solutions.

We focus on offering a portfolio of specialist services and high levels of expertise, deliberately maintaining a scale of operation that does not outgrow our talent pool. We continue to innovate to meet and exceed the needs of the most challenging projects, to consistently deliver positive outcomes.

Enabling Architecture

Working in close cooperation with architects, engineers, scientists and designers, we have developed the knowledge to seamlessly assimilate form and function, art and technology. We are practitioners in mechanical and electrical engineering, lighting and sustainable design that enhance spatial design.

In addition to the Vitruvian principles of solidity, utility and beauty, we have put in place our own guiding triad to produce intelligent, valuable and elegant solutions. Our integrated design innovations are often examples of quiet achievement with a profound effect on the success of a project, creating exceptional environments from combinations of active and passive measures - the efficient, seamless operation merges elegantly into the whole, we achieve total architecture.

Thinking Without Borders

Steensen Varming was founded by Niels Steensen and Jørgen Varming in Copenhagen - but the seeds of a global outlook were already sown when Jørgen and his architect father before him, studied in the U.K.

Not long after the war ended, the Dublin office opened followed by London was preceded by prestigious commissions with competition-winning architects. The Sydney Opera House commission with Jørn Utzon continued this pattern and the Sydney practice opened in 1973. Hong Kong and New York followed in our eightieth year.

We remain inspired by our Danish heritage while working with visionary architects and clients, wherever their location. Being global means more than expansion or having a physical presence in different countries - it is a way of thinking.

Mechanical Engineering

Mechanical engineering design is more than componentry, it is the knowledge of the fundamental principles of physics and the ability to apply these imaginatively. It is essential to the success of the internal environment of a building and its people.

Through active and passive means, we put as much into the design of our invisible plant rooms as we do the visible components of our integrated systems.

Technological advancement and statutory development make it critical to stay ahead, to use the best, or the next, available means. Sound engineering involves buildability, space, operation, aesthetics, acoustics, capital and recurring cost, energy efficiency and environmental quality. We consider the holistic requirements and priorities, applying mechanical engineering solutions that create comfortable buildings.

Sustainable Design

Sustainable design focuses on creating comfortable environments without increasing environmental deficit. It is a way of thinking that embraces simple, appropriate solutions to complex problems. It is about efficient design, specifying systems that complement one another, using less material in the right place, and utilising the waste of one process to fuel another.

Our expertise spans design and engineering with our integrated solutions supported by a long tradition of in-house collaboration across all building services.

We participate in creative dialogue in concept stages and have the technical acuity to support our work with prudent analysis throughout design development. Continuous exchange within the design team yields integrated solutions, both active and passive, that are fit for purpose, low maintenance and low energy.

Lighting Design

Light is a fundamental part of life and a powerful means of communication. We intuitively perceive and experience our world through light. It influences our wellbeing, it reaches our emotions, it inspires us. Our passion for light comes from the understanding of its deep connection to being. To realise and share a vision in any context, whether in landscape, in the built environment or in art, the role of light is essential.

Our lighting design philosophy is driven by creativity and collaboration, and backed by experience and learning. We are actively involved in the industry and research, expanding our knowledge, teaching, speaking and participating. Our progressive and dynamic methodology is constantly evolving, enabling progressive design solutions across a wide spectrum of lighting services.

Electrical Engineering

Modern society could not exist without the control and distribution of electrical power and communications. Electrical services are its arteries and veins - critical to the smooth operation of a contemporary building and its business. They are taken for granted, as long as they function properly, but their complexity is increasing at the same startling rate as technology is developing.

Electrical lifelines range from power generation, supply and infrastructure reticulation to communication networks, security systems, fire safety and vertical transportation. Their design and delivery requires patience and perseverance; liaison with supply authorities, strategic advice on cost and space planning, clear and concise briefings and precise documentation detailing every system powering the building, running the air conditioning, controlling the lighting.

Day-to-day operational provision converges with our long-term outlook where life-cycle cost, energy saving initiatives, efficiency, security and sustainability are key, including planning for interaction with embedded generation and smart grids. We are experienced in complex and challenging projects with a portfolio covering the health, education, defence, residential, commercial, cultural, public, civic and urban design sectors.

Expertise

Services Masterplanning
Specialist Environments
Natural, Hybrid & Mixed Mode Ventilation
Air Conditioning, Heating & Cooling
Medical & Specialist Gases
Industrial Ventilation
Smoke Control & Life Safety Systems
Dynamic Thermal Modelling
Building Load Analysis
Interior & Exterior Lighting
Lighting Masterplanning
Daylight Analysis & Design
Exhibition Lighting
Solar Shading & Access
ESD & Energy Masterplanning
Passive & Low Energy Design
Building Envelope Design
Climate Control & Thermal Comfort
Indoor Air Quality
Thermal Storage
Renewable Energy
Energy Recovery
Material Reuse and Recycling
Vertical Transportation
Information & Communications Technology
Building Management & Controls
Security & Surveillance
Audio Visual Services
Power Generation & Standby
High & Low Voltage Power
Co-generation & District Energy
Lightning Protection

Sustainable and Social Values

It is in our DNA to create positive environments.

Steensen Varming has an innovative and collaborative approach to design that considers the broader social and environmental aspects of our work.

We are committed to creating ‘positive environments’, and continuously improving our practices to the benefit of the local and global environment and communities.

We are proud to lead by example and consider environmental and social issues to be essential to a responsible business. We exclusively support projects that provide benefit to, and advance society rather than those that irresponsibly exploit others or the environment.

B Corp

Certified B Corporations, or BCorp, envision a better economic system where businesses can benefit people, communities, and the planet.

Steensen Varming is proudly B Corp certified. Meaning, we are eco-centric, not ego-centric. We hold ourselves accountable in meeting B Corp’s high standards of social and environmental performance, accountability, and transparency.

We are proud to play our part in B Corp’s global movement for an inclusive, equitable, and regenerative economy: “We over Me”.

UN Global Compact

Our partnership with the UNGC (United Nations Global Compact), demonstrates our dedication towards expanding our industry reach and seeking opportunities to further participate and collaborate on projects that advance the UN Sustainable Goals (SDGs).

We embed core UN Sustainable Goals principles of human rights, labour, climate action and anti-corruption into everything we do, from our company strategy to our culture and operations.

Certified

B

Corporation

Indigo Slam Residence

Residential Expertise

Steensen Varming possesses an extensive and wide range of experience in many sectors, including, residential, commercial, iconic landmark projects and public spaces - in both the interior and exterior environment; all providing us with specific expertise in many areas and an understanding that will positively influence the design and ensure appropriate solutions are being developed for each component and space in a residential development.

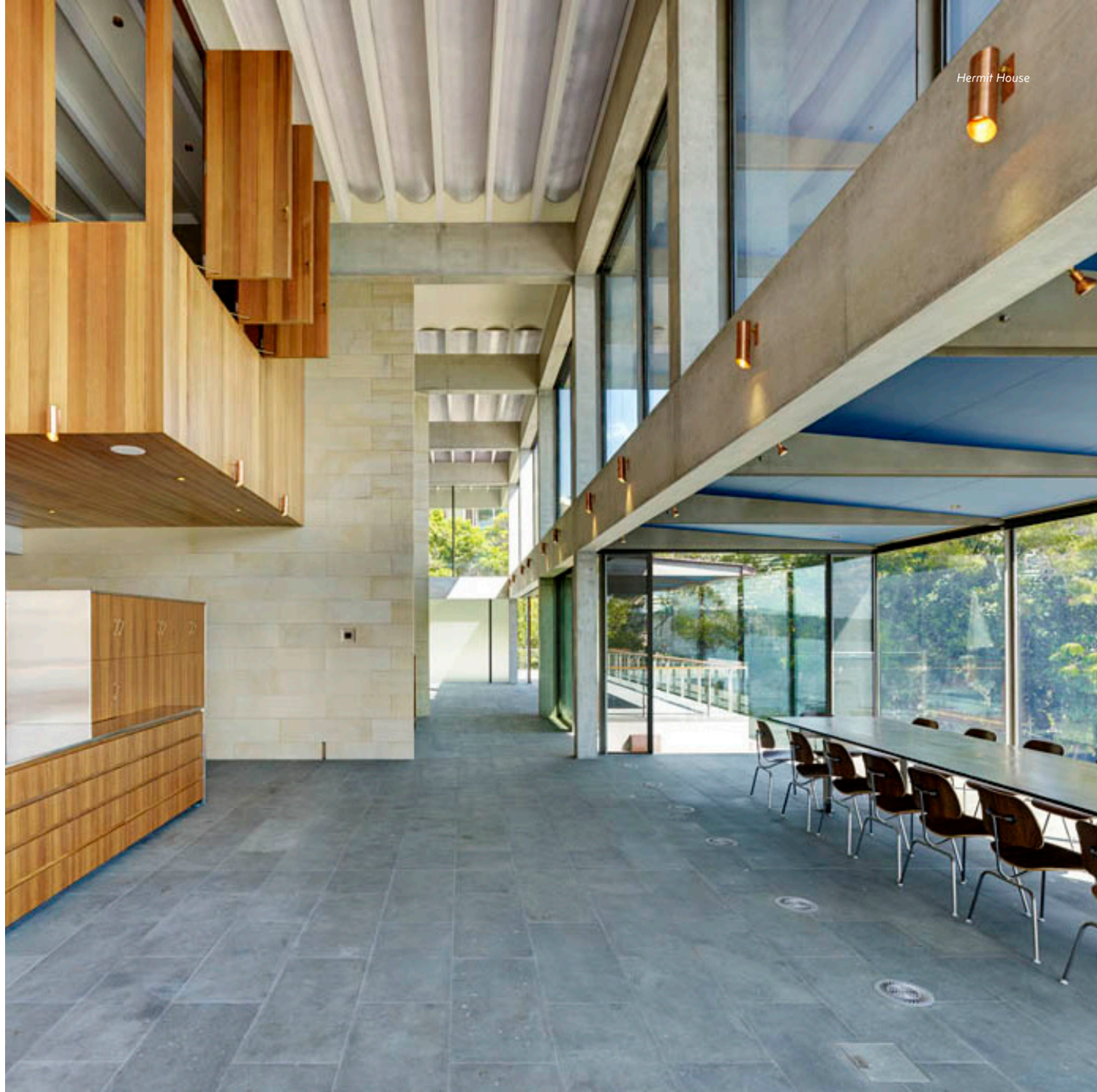
Our breadth of experience across different sectors also ensures unique rather than standard design solutions, tailored to each project and project focus and the ability to create holistic designs across all areas of the residential development with individual responses to the various spaces.

Critical issues such as user wellbeing and comfort, energy conservation, and flexibility of design are addressed in our design methodology.

We have a range of experience in residential designs and believe with our background in many sectors, from large projects to artworks, will enable us to contribute positively and provide tailored solutions to every project.

Light specifically has direct influence on the perception of the space and comfort of the residents. The design needs to meet people's needs in relation to visual performance and comfort and create an inviting and welcoming home, with the aim to:

- Create an atmosphere that is calm, inviting and welcoming, and reinforces a sense of belonging
- Create comfortable and functional lighting solutions to fulfil the specific visual performance and visual comfort requirements
- Consider and support the importance of daylight and its changing nature for occupants' health by balancing with the electric lighting to achieve a visual balance, and the variance between the day- and night time atmosphere and relevant lighting response as part of the design
- Increase comfort through intuitive lighting operation and control.



Hermit House

Indigo Slam Residence

A piece of sculpture to be lived in, this unique space fronts a new urban parkland and creates an inspiring residence for a renowned art collector. Behind a façade of sculpted concrete, serene living spaces and monumental halls create a dynamic spatial interplay of spare interiors in which the main decorative element is light.

The spatial sequence is alive to the changes wrought by natural light during the day and is redefined at night as a dramatic counterpoint. At the entry the visitor is welcomed into a generous and intimate coved vestibule. From here, the space compresses to a low and narrow corridor before suddenly opening to a cavernous stair hall lit from concealed roof lights overhead.

Attention to detail can be recognised in the various spaces within this residence, spacious and intimate. Internal finishes are modest and pared-back: floors are brick-paved, lights fittings are handpicked with care, they are simple and elegant. The brief requiring a century life span for the building was tackled by using simple and timeless hardwired and analogue control methods whilst still maintaining complex controls, dimming and scene changes.

Light is used a key element in the architectural composition and balance of the spaces, giving each different part of the residence its own atmosphere. Lighting in each space has been mindfully composed to complement the mood and articulate the beauty and qualities of architectural elements. Conceptual integrity is maintained even in areas like the commercial-grade kitchen providing a generous and unique visual environment while responding to functional requirements and paying high attention to detail.

Indigo Slam
Sydney, NSW

Client: Private Residence
Completion: 2016
Design Team: Smart Design Studio
Services: Lighting Design

Awards:
INSIDE World Festival of Interiors Awards – Residential 2016
IES Lighting Design - Award of Excellence 2018

Hermit House

Hermit House is a harbour front property in Vaucluse, not far from Sydney's CBD. The property offers a stunning location of uninterrupted harbour views and is an awe-inspiring family home. The house is unique in its position, its architecture and in its sustainability qualities.

Steensen Varming provided the mechanical, electrical, ESD and lighting services design for this project. The design included many key features such as; Thermal labyrinth to passively temper incoming outside air to reduce air conditioning loads, heat recovery via plate heat exchangers, mixed mode ventilation, hydronic lab heating, displacement ventilation and optimised natural ventilation system, coupled with night purge and exposed thermal mass.

Hermit House
Sydney, NSW

Client: Private Residence
Size: 2,000m2
Completion: 2014
Design Team: Peter Stutchbury
Services: Mechanical & Electrical Engineering, ESD, Lighting Design

Awards:
2014 Master Builder Association Award for Excellence in Housing

140 Paddington Street

The objective of the lighting design for the Paddington street residence was to enhance and integrate with the unique character of the Grove Architects architecture. With a focus on the flexibility, simplicity and quality of the artwork display experience, consideration of the client's needs and aesthetic expectations of each space, the minimisation of energy consumption,

Steensen Varming introduced new technologies for the lighting of key areas and artworks within this space. Steensen Varming designed and implemented specialist artwork lighting, residential architectural lighting, including lighting calculations and the overall lighting controls and strategy.

140 Paddington Street
Sydney, NSW

Client: Private Residence
Completion: 2019
Design Team: Grove Architects
Services: Lighting Design

67-68 Warwick Square

67-68 Warwick Square is a redevelopment of a 5 storey Grade II listed building that was converted into three self contained apartments. Steensen Varming provided lighting design services and mechanical, electrical and plumbing services including “whole house ventilation” with heat recovery to mitigate external noise issues.

The works included providing a detailed review of the existing systems and creating a recommendations report detailing how any changes could be linked with the existing services.

67-68 Warwick Square
London, UK

Client: Private Residence
Size: 500m2
Project Value: £1.5M GBP
Completion: 2019
Design Team: Cooke Fawcett Architects
Services: Mechanical & Electrical Engineering, Lighting Design

Bellevue Hill Residence

Sydney, NSW

Client: Private Residence
Design Team: Collins & Turner
Services: Lighting Design

Steensen Varming developed the lighting concepts for the exterior areas of this private residence, including garden and landscape lighting, Lighting is integrated into the architecture and landscape design, creating a subtle night-time environment and serene and welcoming lighting atmosphere.

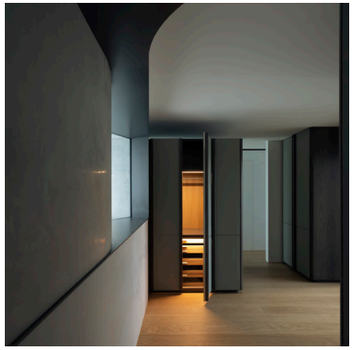
Dawson's Wood Residence

East Sussex, UK

Client: Private Residence
Size: 300m2
Design Team: FJMT Oxford
Services: Mechanical & Electrical Engineering, Hydraulics, Lighting Design

Sustainability is a key component and driver for this home, which is designed to be harmonious within its landscape setting and surroundings. Materiality and form are enhanced with the subtle lighting that pronounces the architectural language and creates a comfortable residential atmosphere.

Steensen Varming provided mechanical, electrical, plumbing and lighting design for this private residence.



House Taurus

Sydney, NSW

Client: Private Residence
Design Team: Durbach Block Jaggers/SJB
Services: Lighting Design

With a monolithic curved concrete form, this unique residence makes an impressive statement. The lighting solution considers architectural form as well as human comfort. Wellbeing, enhanced visual quality of the owners personal art collection, conservation strategies and integrated lighting control are an important focus of the design.

Liveable spaces are created with careful consideration given to the daytime and nighttime experiences.

Clareville House

Sydney, NSW

Client: Private Residence
Design Team: Terroir
Services: Lighting Design

This private residence project orientates around the living room, studio, and bedrooms which all maximise the water views across Pittwater. It also also included an elevated swimming pool, a street level garage/workshop, extensive landscaping, and an inclinator linking the garage to the waterside.

Being a retreat from the bustle of the city and response to the natural features of the site, the material palette is sympathetic to the surroundings , using timber that is native to the site. Lighting is integrated into the timber structure or and in line the architectural design, creating warmth and ambience at night-time.

106 Kirribilli Avenue

Sydney, NSW

Client: Private Residence
Size: 1,450m²
Design Team: Tzannes Associates, Redgen Mathieson, William Dangar
Services: Mechanical & Electrical Engineering, Lighting Design, Dry Fire, BIM

Designed by award-winning architects, this penthouse is located within a boutique development of three lavish apartments. The two level penthouse is located in the harbour front suburb and has views of the Opera House and the Harbour Bridge. It is one of only four residences in the iconic development known as Kirribilli Avenue.

This luxury apartment building showcases spectacular views of the Harbour Bridge and the Sydney Opera House. The development includes copper and sandstone exterior, two lavish apartments and a penthouse on top, car stacker and private pools. Steensen Varming engaged for Mechanical, Electrical base build, Emergency Lighting and Dry Fire services.

Killcare House

Sydney, NSW

Client: Private Residence
Design Team: TZG Architects
Services: Mechanical & Electrical Engineering, Lighting Design

Awards
2001 RAIA Merit Award

This award winning private residence on Sydney's outskirts is an example of Steensen Varming's broad base of project experience and our ability to ensure that building services and lighting design is entirely sympathetic to the particular architectural philosophy embodied in a building.

One Sydney Harbour Residential Towers

One Sydney Harbour consists of three residential towers, marking the final phase of the Barangaroo development, the largest urban renewal project of its time. Designed by Renzo Piano, the towers feature sleek glass facades that reflect the changing skies and sea. Each tower maximizes natural light and offers stunning views of Sydney Harbour, the Opera House, and the Harbour Bridge, with integrated greenery promoting a connection to nature.

As part of Barangaroo's high sustainability efforts, the towers are cooled by a centralised district cooling plant and heated by individual centralised heating systems. The development is served by a private utility that initially supplied thermal energy, electricity, and wastewater. This utility, Living Utilities, was later acquired by Clean Peak Energy as the One Sydney Harbour buildings neared completion.

Before taking over, Clean Peak Energy required technical assistance to ensure the heating and cooling plants were installed as per the Project Agreement. This included verifying compliance with design specifications, commissioning, the quality of handover documentation, and adjustments to supply agreements between the utility provider and building owners.

Steensen Varming provided mechanical services expertise, which involved design assessment, inspections, commissioning, metering verification and manual review.

One Sydney Harbour Residential Towers
Sydney, NSW

Client: Clean Peak Energy
Size: 808 Apartments
Project Value: £4B AUD
Completion: 2024
Services: Mechanical Engineering

UK House Residential Penthouse Apartments

UK House was originally built in 1906 in the former rag and trade district and was designed to resemble Hampton Court Palace. As such, there is a strong element of heritage associated with building. At the commencement of the services the building is used as a mixture of office and retail space only.

Four new penthouse apartments have been built as an extension on the current building roof. These apartments are set on 2 levels, surrounded on all sides by an accessible terrace. There is also a new ground floor residential entrance lobby, lift and art storage.

The intent was for an internal modern feel to high standards, with servicing requirements to match. Extensive studies were carried out to implement passive design, with an openable façade together with automated external shading, allowing for natural ventilation and daylight penetration. This is complemented with active cooling seamlessly coordinated within joinery to ensure additional protection of artwork on display. Lighting is designed to be warm and inviting, as well as flexible to highlight the artwork as required. Audio Visual and Home Automation systems complete the apartments ready for the future way of living.

The apartments' heating and hot water demands are solely served by air source heat pumps, accompanied with a new array of solar PV on the roof, in line with The London Plan strategy of reducing energy demand, then increasing efficiency and finally providing renewables. Critical systems are backed up by dedicated batteries. Green roofs and walls cover the rest of the external facades, with a new roof drainage system integrated into the new proposals.

UK House Commercial and Residential Building
London, UK

Client: Flametree Properties
Size: 1,270m2
Completion: 2023
Design Team: Blue Sky Building, TP Bennett, Christ & Gantenbein
Services: Mechanical and Electrical Engineering, Communication, Fire Detection Lighting Design, BIM

Sai Kung WM Hotel

Located in the Sai Kung Peninsula, the easternmost part the New Territories in Hong Kong, the site is situated along the shoreline, facing the South China Sea. Developed from a rural fishing village, Sai Kung is now a leisure and tourist destination, a main attraction for local citizens and visitors during weekends.The Sai Kung WM Hotel is a three-storey hotel that houses 260 luxury rooms, and offers retail and wedding services.

Steensen Varming were engaged to develop the exterior and interior lighting of the development. The hotel will be a venue for weddings and celebrations, with a wedding chapel, banquet halls, function rooms and retail areas serving guests and local clients.

Lighting inspirations are drawn from the landscape architectural metaphor of headlands interacting with the ocean. The façade architecture lends itself to playing with lighting and the geometry to give a sense of depth and play in the building during the evening. The hotel has achieved LEED Gold certification.

Sai Kung WM Hotel
Sai Kung, Hong Kong

Client: Shaw Studios
Size: 26,910m2
Completion: 2021
Design Team: Aedas, Alex Choi, Alexander Wang Architects
Services: Lighting Design, ESD

Awards
2023 International Property Awards:
- World's Best Interior Design
- Best International Hotel Interior
- Best Hotel Interior Asia Pacific
2023 MUSE Design Awards Gold Winner, Hotels & Resorts
2022 A&D Awards Certificate of Excellence, Best Hotel, Resort & Leisure
2022 IDA International Design Awards - Honorable Mention, Architecture Category – Hotels & Resorts
2022 Pro+ Award - Gold Award, Hotel
2022 READ Global Design Award - Silver Award, Hotels
2022 Architecture MasterPrize - Honorable Mention, Architectural Design Hospitality Architecture

Macquarie Central Apartments

Macquarie, NSW

Client: Toga Group
Services: Mechanical & Electrical Engineering, Lighting Design

Macquarie Central is located 14km north of the Sydney CBD and was the most significant residential development in the area at the time. With clean lines the Skyline Apartment building creates a dramatic entry statement to this new masterplanned community.

The accommodation mix – all light-filled, contemporary and spacious – is complemented by generous alfresco entertaining spaces, floor to ceiling windows, communal landscaped gardens, and sweeping district and city views.

Steensen Varming completed the D&C level electrical services documentation for buildings C & D and compiled the full design for building E.

Onslow Avenue Residential Units

Sydney, NSW

Client: Private Residence
Design Team: PTW Architects
Services: Mechanical & Electrical Engineering, Lighting Design, ESD

The residential development on the constrained site included nine luxury apartments with high quality spaces, fixtures and finishes. Steensen Varming's approach to building services, ESD and Lighting Design aimed to enhance and reinforce the Architect's and Interior Designer's vision and the living experience of the building. Non-intrusive, integrated design as well as energy efficiency and sustainability were the key drivers for this project.

Lighting is integrated in the joinery for both indirect lighting of the space and tasklighting to reinforce the 'clean' contemporary appearance of the units. Wallwashing to the key walls creates atmosphere whilst providing a suitable canvas for artwork.

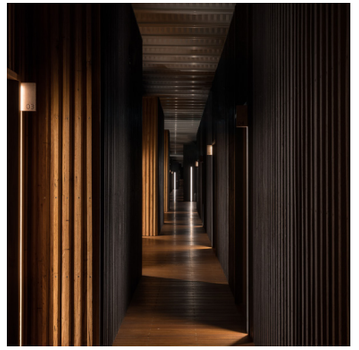
The Quincy Hotel

Sydney, NSW

Client: Far East Organisation
Size: 18,000m2
Design Team: FJC, TTW, Essence
Services: Mechanical & Electrical Engineering, Lighting Design, ESD & Vertical Transport

The project will see the development of The Quincy Hotel, located on Harrington Street in The Rocks Sydney.

The redevelopment will see the demolition of the existing Clocktower Square commercial and retail, and new build of the North Wing hotel accommodation, reinvigorating the existing hotel accommodation of the Rendezvous Hotel (South Wing) and existing hotel accommodation of the heritage-registered terraces. Steensen Varming are undertaking the Mechanical, Electrical, ESD, Vertical Transport and Specialist Lighting Design.



Bundanon Accommodation Bridge

Riversdale, NSW

Client: Bundanon Trust
Size: 4.500m2
Services: Mechanical Engineering, Electrical Engineering, Lighting Design

Set within native bushland, Bundanon Art Museum and the dramatic Bridge offers visitors the opportunity to experience the natural surrounds that inspired artist Arthur Boyd (the Galleries namesake and legacy) in his work; and secures Bundanon as leading cultural and tourist attraction in Regional Australia.

Integrated into the landscape and designed to meet Bundanon's net zero ambitions, the eco accommodation bridge is resilient and conscious of its natural environment, letting the floodwaters flow unimpeded and remaining humbly unlit from the outside. Services and lighting are seamlessly embedded within the architectural form. Lighting is warm, minimal and targeted, carefully curated and in harmony with the intrinsically dark surrounds.

St Catherine's College Accommodation Block

Oxford, UK

Client: St Catherine's College
Design Team: Purcell
Services: Mechanical & Electrical Engineering, Lighting Design, ESD

The Graduate Centre and student accommodation block at the Grade I & II-listed St Catherine's College at the University of Oxford, complement the work of Danish architect Arne Jacobsen.

The accommodation block includes 78 student bedrooms arranged in clusters in a trio of three-storey pavilions next to Jacobsen's 1960s masterpiece. The adjacent cylindrical three-storey building is used as a graduation centre. Thermal modelling was undertaken for the graduate centre to demonstrate that natural/night purge ventilation in combination with exposed thermal mass could achieve acceptable internal temperatures without the need for active cooling systems. Electrical systems were designed to utilise the existing electrical infrastructure and the lighting was designed compliment the architecture and original Arne Jacobsen approach.

Herring Road Student Accommodation

Macquarie Park, NSW

Client: Freecity
Size: 500 Units, 13,200m2
Design Team: Cox
Services: Mechanical & Electrical Engineering, ESD

Located next to the Macquarie University Metro Station and bordering Elouera Reserve, Herring Road, a contemporary high-quality Purpose-Built Student Accommodation, connects with both its urban and natural surroundings and aims to set a new benchmark for urban living. Steensen Varming provided mechanical, electrical and sustainability advice for the project, in the concept and design development phase, ensuring a smooth delivery of the Development Application package.

When complete, Herring Road will stand as Australia's tallest volumetric modular building - a high-quality, sustainable housing delivered at speed, without sacrificing design excellence.

steensenvarming.com

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