

**SKELLY & COUCH**





## A commitment to excellence

When Tristan Couch and I founded Skelly & Couch in 2007, our ambition was to work on high-quality, bespoke projects that were challenging and rewarding. Over a decade later, the goals on which we first set our sights continue to be met.

We have had the great good fortune to have worked on unique buildings with like-minded architects and a wealth of forward-thinking clients. Our inspiring challenge has come from applying our distinctive multidisciplinary approach to create a contextual response to each site and brief, whilst at the same time pushing forward innovation and crafting quality. Our true reward has come from the enjoyment we gain from the process and from the immense satisfaction of creating buildings that are loved by their users, well regarded by our peers and contribute to improving the environment.

The structure, management and ethos of the practice are constantly evolving to allow us to embrace change and we continue to be fascinated and challenged by our work. We are excited about our new office in Bristol and our presence in Newcastle continues to thrive.

We seek to maintain our high standards by only taking on projects that help meet our goals and by employing a brilliant and diverse group of people who are committed to this common purpose. This brochure attempts to give an insight into our portfolio of work to date. Each project has its own personality, reflecting the individuals who contributed to them and the process they went through. We hope this comes across and that you enjoy and value them as we do.

## Dr Mark Skelly

Founding Director

## Who are we?

Skelly & Couch is a dynamic firm of award-winning building environment and services engineers based in north London. The design-led practice was founded in 2007 and is run by Directors Mark Skelly, Tristan Couch, Mark Maidment, Stephen White and Stephanie Skelly. The firm has grown steadily over the past 12 years through mainly repeat business, and now employs 40 people.

As a leader in our field, the ethos of the practice is to support the design and construction of sustainable buildings which not only use less energy, but perform environmentally and socially; are capable of being efficiently maintained and operated; and have the flexibility to stand the test of time for future generations.





© Nick Kane

Chadwick Hall, University of Roehampton

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Our projects have won many architectural and sustainability awards, including 34 RIBA Regional Awards and 13 RIBA National Awards. Three of our projects over three successive years have been shortlisted for the RIBA Stirling Prize, the UK's most prestigious architecture award: Command of the Oceans – The Historic Dockyard Chatham (Baynes and Mitchell Architects) in 2017; Chadwick Hall, University of Roehampton (Henley Halebrown) in 2018; and The Weston, Yorkshire Sculpture Park (Feilden Fowles) in 2019. Skelly & Couch won Association for Consultancy and Engineering (ACE) Building Services Excellence Awards for two years running and was named one of the construction industry's top 50 employers for three consecutive years in Building magazine's Good Employer Guide 2015, 2016 and 2017. The firm has achieved ISO 9001 accreditation and ISO 14001 certification for environmental management.

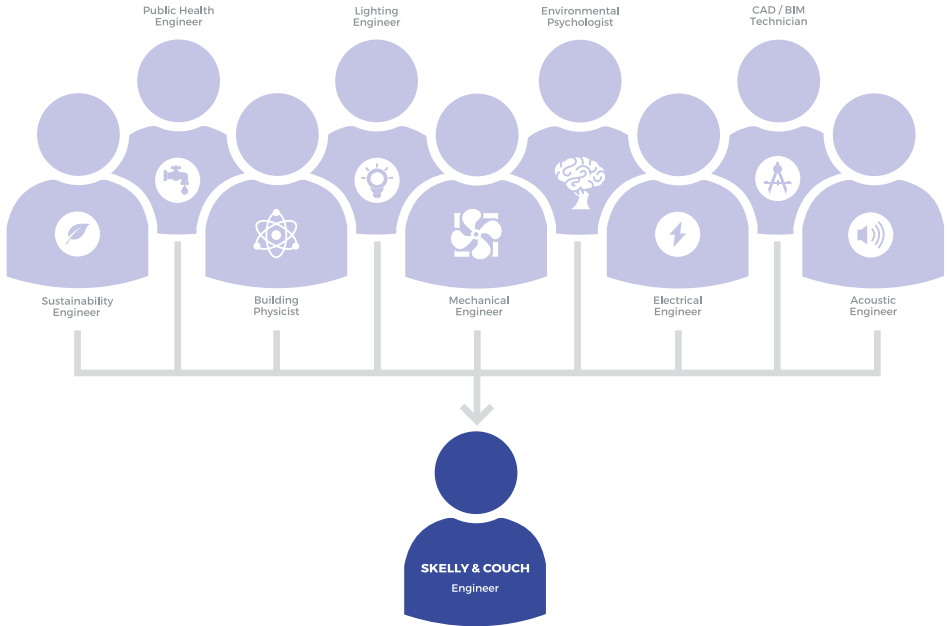
## What do we do?

Our primary business goal is to provide fully co-ordinated MEP and environmental design services, from conception to completion, that deliver high-quality built environments. Our primary market focus is complex and bespoke projects, covering a range of sectors, client types and sizes, with the majority having a construction value of between £1m and £30m.

Over more than a decade, we have built up a reputation for 'innovation' and 'sustainable design'. We believe that true 'sustainable design' is what used to be called simply 'GOOD DESIGN'. Well-designed buildings should:

- Be loved by the people that use them, from an aesthetic, usability and comfort point of view
- Be designed to have as long a life as possible
- Be flexible and adaptable
- Use as little energy and resources as possible
- Fit well into their local environment
- Be simple, elegant and not too complicated; the list could go on.





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Good design is subtle, as well as client and site-specific, and developing good design as part of a team takes skill, and involves a process that is not easily measured using tools such as BREEAM, Energy Performance Certificates or sustainability checklists.

To ensure we have the right skills to deliver good design and facilitate innovation, all our engineers are trained in every aspect of building environmental design and we do not divide ourselves into separate disciplines, such as mechanical, electrical, lighting, sustainability and public health. In addition, our engineers produce their own drawings, do their own energy modelling and are trained to work in a 3D BIM environment. We believe this approach is unique within the industry and the benefits are that engineers attending meetings are highly skilled and able to cover all aspects of the design, on fewer projects. This approach enables us to provide a more transparent, integrated, informed and well-rounded service.



## Alfriston School

The project was to build a new swimming pool and refurbish an existing hall for a secondary-age Special Educational Needs (SEN) Girls' School at the edge of Buckinghamshire's Greenbelt. The brief was to provide a landmark building that would raise the profile of the school and provide facilities that could be used by staff, pupils, parents and the local community alike. Facilities include a main pool hall, changing rooms, chemical stores, plant areas, an admin office, a fitness suite and a small sports hall.

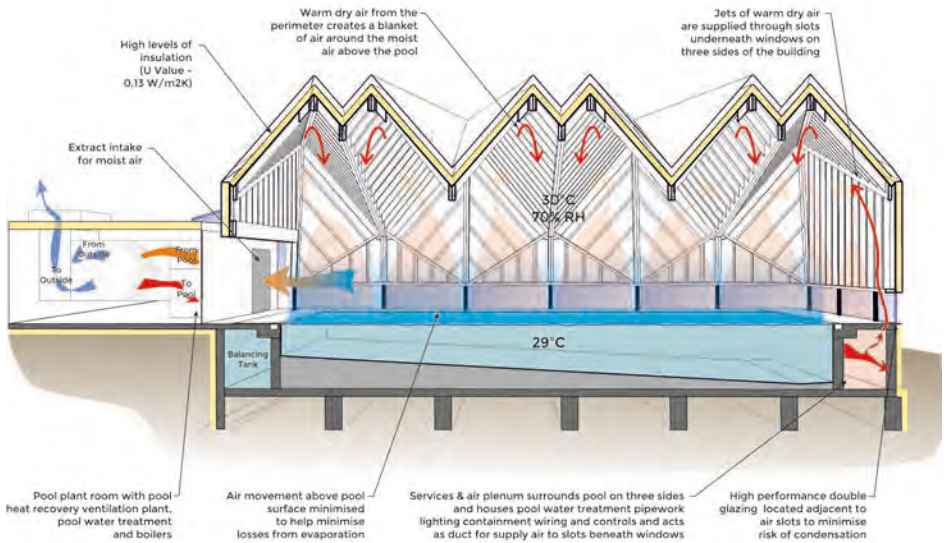
The key to the project was making sure that the striking structural design, which features a geometrically folded timber roof, and won the Structural prize in the 2014 Wood Awards, was not interrupted by the normal M&E services associated with a highly serviced swimming pool environment. A strategy was developed that created a service plenum in the plinth around the pool itself to house the main services distribution and supply air through discrete slots directly beneath the glazed windows. The extract is positioned at the changing room end of the space near the central plant room.

The design relies on excellent airtightness values and high levels of insulation to limit energy loss and condensation risk and other energy saving features include heat pump water heating of the pool coupled with a heat reclaim ventilation system, as well as efficient lighting and control. The new pool is predicted to use 70% less energy than the previous pool.

The project was designed to RIBA Stage E before going out for a design and build tender. Skelly & Couch was appointed to provide full M&E, environmental, acoustic and co-ordination design services and was novated to the Main Contractor.

Winner of a 2015 RIBA National Award and two 2015 RIBA South Awards – overall award and Client of the Year prize. Winner of the Structural prize in the 2014 UK Wood Awards and shortlisted for the British Construction Industry Building Project of the Year 2015 Award (value up to £10 million). Selected for the RIBA Stirling Prize Midlist 2015. Commendation in the 2015 Structural Awards in the Education or Healthcare Structures category.





Morris+Company

£2.5m

2014



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## The Bridge Theatre

The new Bridge Theatre is London's first commercial theatre of scale outside the West End for four decades. The 900-seat auditorium is the flagship home for the London Theatre Company, with Nicholas Hytner and Nick Starr, who led 12 years of artistic and commercial success at the National Theatre, at its helm.

The outstanding venue, for which Skelly & Couch undertook full mechanical, electrical and environmental design, has a spectacular location by City Hall and Tower Bridge, overlooking the River Thames as part of Berkeley Homes' One Tower Bridge development.

The auditorium of the theatre, which opened in summer 2017, is designed by Steve Tompkins and Roger Watts of RIBA Stirling Prize-winning Haworth Tompkins Architects, with whom Skelly & Couch has worked on many successful projects, including the refurbishment of the Grade II\*-listed Chichester Festival Theatre.

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**Haworth Tompkins**

**£8.4m**

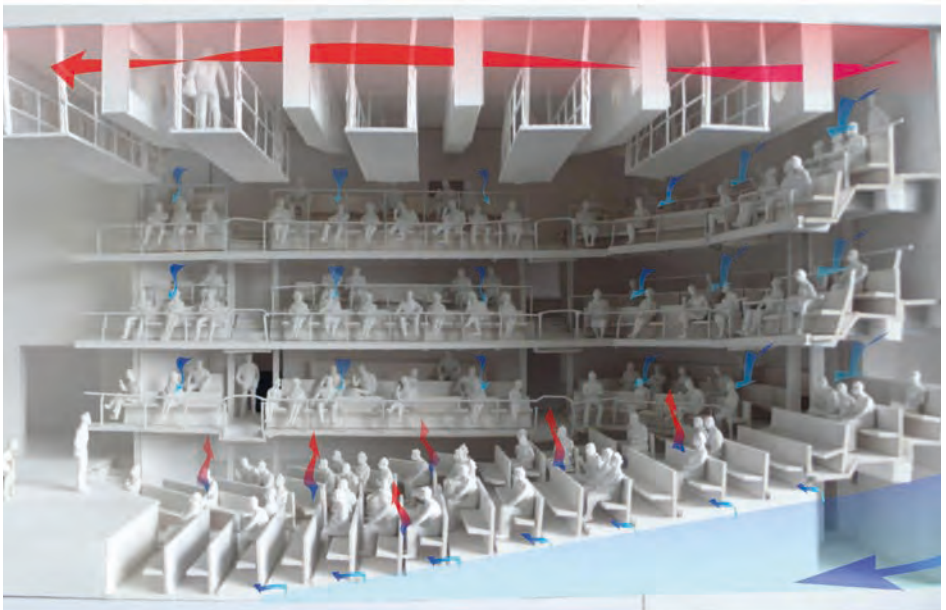
**2017**



The theatre features a state-of-the-art prefabricated modular auditorium that brings flexibility and the latest in-stage technologies to the cutting-edge theatre, which offers theatre-makers a platform to create adventurous new work. It is the flagship of a number of new theatres to come in London.

The Bridge Theatre is run as a commercial enterprise with no subsidies or philanthropic grants. It is the London Borough of Southwark's second-largest theatre, after Shakespeare's Globe, where Skelly & Couch has worked on a refurbishment and new-build project.

2018: Winner of Theatre Building of the Year in The Stage Awards; a RIBA London Award; and the Design Through Innovation RICS Award. A Cultural Project of the Year finalist in the 2018 AJ Architecture Awards.



## Cambridge Central Mosque

Cambridge Central Mosque is the first 'eco-mosque' in Europe and promises to become a landmark standard for spiritual centres across the continent.

The Mill Road site includes a 1,000 capacity prayer hall, community kitchen and café, teaching rooms, two residential units and an underground car park. The building is surrounded by a cypress tree garden, providing an oasis within the immediate urban environment. The design intent is for environmental and energy concepts for the building and its integrated services to achieve low carbon emissions and none on site.

Energy use is minimised by using mixed mode systems – static heating and natural ventilation – supplemented by displacement cool air supply at times of high occupancy or high heat gains and natural light supplemented by low-energy LED artificial lighting.



© Laura Slacle



© Abdallah Abada

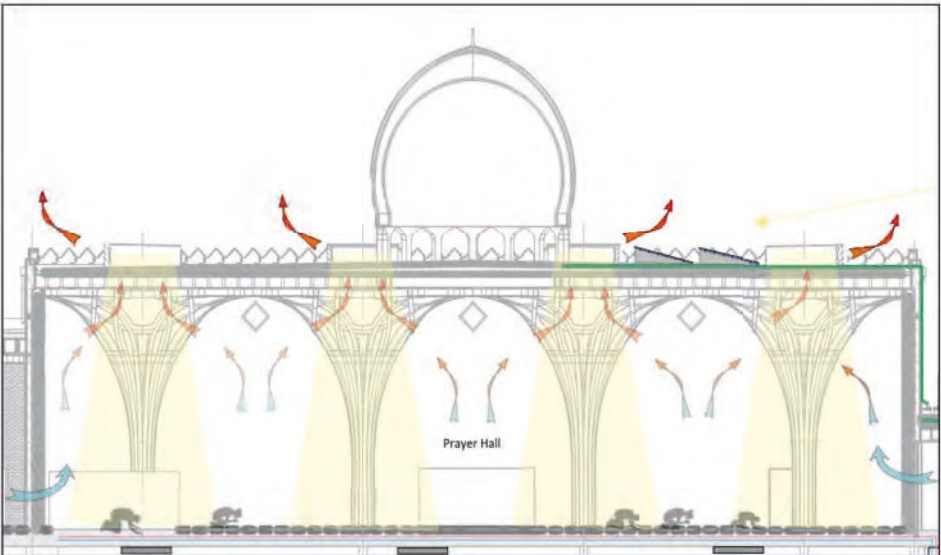


Figure 1 – Illustration of the Natural Stack ventilation strategy for the Prayer Hall.



© Morley von Sternberg



© Morley von Sternberg

**Marks Barfield Architects**

**£23m**

**2019**

The building form and fabric specification ensure it can be naturally lit during daylight hours and naturally ventilated throughout the year - even during periods of peak occupancy. The building fabric is designed to ultra-low U-values with airtight construction to minimise energy need and energy loss.

Each timber vault sits beneath a glass oculus, and the overall effect is an interior bathed in natural light. The striking timber construction means that embodied energy is very low.

Air source heat pumps are used for underfloor heating/cooling which also includes an innovative system of direct hot water heating via buffer tanks. Given that the grid electricity becomes increasingly less carbon intensive, the overall footprint will reduce year on year.

The building is part powered by a PV array and rainwater is harvested for flushing WCs and irrigation. The power produced by the PVs is sufficient to cover all of the hot water used in the building, all of the cooling and 13% of the heating.



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## Chadwick Hall - University of Roehampton

This award-winning project for the University of Roehampton provides 210 student rooms within three buildings located adjacent to the Grade II\*-listed 18th century Downshire House within the Alton Conservation Area. Skelly & Couch was appointed to provide full mechanical, electrical, public health and environmental services on this design and build.

Strong features of the buildings include high levels of thermal insulation, air-tightness and daylight with 85% of spaces meeting the target daylight factor of 2% and 81.5% achieving a daylight factor greater than 3%. All bedrooms and communal spaces use natural ventilation with occupancy-controlled boost ventilation to WC ensembles. They make use of a Combined Heat and Power system and a local district heating network. All of these factors contributed to the scheme meeting the London Plan's 40% carbon reduction target and it being awarded a BREEAM 'Very Good' Rating and an EPC rating of 'A'.



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## Henley Halebrown

£13.5m

2016

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Student rooms are clustered on an apartment basis with local heat interface units and thermal storage providing an increased level of occupancy control, enhancing the efficiency of the CHP installation. The ensuite areas of the buildings were formed using prefabricated pods, to maximise the programme and quality benefits of offsite construction. A sustainable urban drainage scheme was adopted including a brown roof attenuation system, and surface water attenuation tank.

Chadwick Hall was a 2018 RIBA Stirling Prize finalist and a RIBA 2018 National Award winner. RIBA judges referred to “the expertly designed student accommodation of Chadwick Hall, London, built cleverly between a listed building and modernist flats and on an extremely low budget”. It was a Regional Finalist in the Civic Trust Awards and a best Higher Education project finalist in the inaugural AJ Architecture Awards 2017.

## Chichester Festival Theatre

The iconic, Grade II\*-listed Chichester Festival Theatre was designed by Powell and Moya and opened in 1962. It boasted the first modern 'thrust' stage auditorium in the country. Over the past 50 years it has been a hugely successful and influential centre for the performing arts and has been extended on a number of occasions to address changing demands, leading to a dilution of the original design.

The refurbishment, designed by architects Haworth Tompkins, involved the construction of new-build, back-of-house areas that add approximately 50% to the floor area. The unique setting and listed status meant that modernisation of services and facilities had to give clarity to the original design.

The 1,300-seat auditorium was fully refurbished as part of the works, which included the complete replacement by Skelly & Couch of all mechanical

Haworth Tompkins

£13m

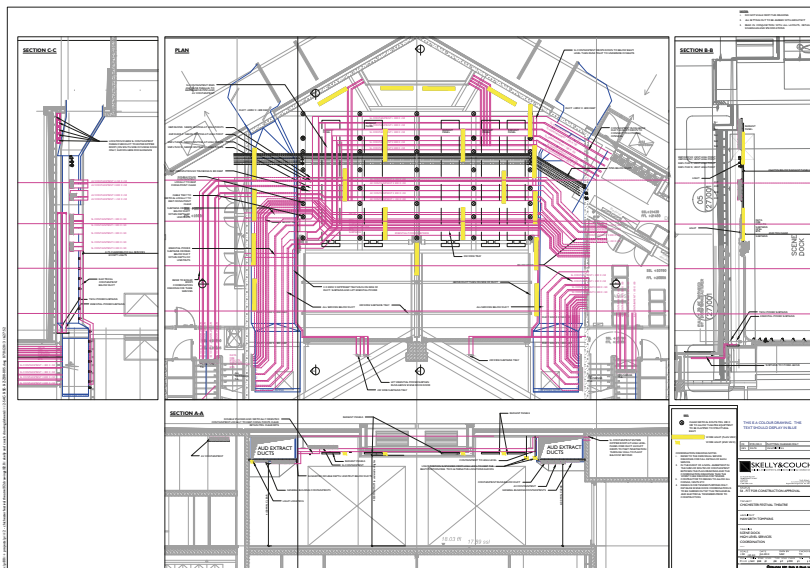
2014



All photos © Philip Vile



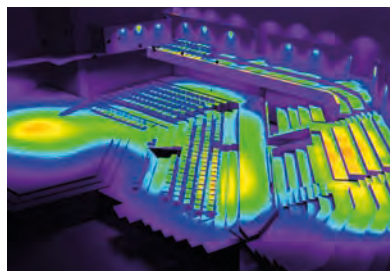




and electrical services using sustainable technologies to minimise future running costs and reduce CO<sub>2</sub> emissions. A ground source heat pump provides the majority of the heating and cooling and the ventilation system within the theatre has been significantly re-designed to increase comfort. Skelly & Couch developed a design with the rest of the team where there would be a system consisting largely of a displacement ventilation system but with elements whereby fresh air was still delivered around the perimeter using drum louvres to direct the air into the body of the auditorium more effectively. Close co-ordination with the architects has allowed the integration of substantially improved thermal elements and new plant within an extremely tight envelope.

Skelly & Couch's role included advising on the environmental and services aspects of the project and to work with the theatre specialists to ensure the successful delivery of the Theatre ready for the 2014 summer season.

Winner of a 2015 Civic Trust Commendation and five 2015 RIBA South East Awards. Shortlisted for a 2016 CIBSE Building Performance Award as Project of the Year - Leisure; and finalist in the 2016 International Architecture Awards.





## City of London Freeman's School

Skelly & Couch is involved in various aspects of a multiple-phased masterplan for this co-educational boarding school situated in a stunning setting of attractive historical buildings and parkland. Past and present works include replacing the existing swimming pool, the refurbishment of the Main House and other smaller projects across the immense site of 57 acres.

The award-winning new swimming pool, along with changing rooms and a multipurpose teaching and events space, features a CHP district heating network, sustainable technologies and a focus on passive strategies. Despite swimming pools being heavily serviced and environmentally controlled, the building design was developed to allow the pool hall to appear minimally serviced and clutter free. Surrounded by mature woodland, and partly submerged below ground, the building gives swimmers the sense of 'swimming amongst the trees'.



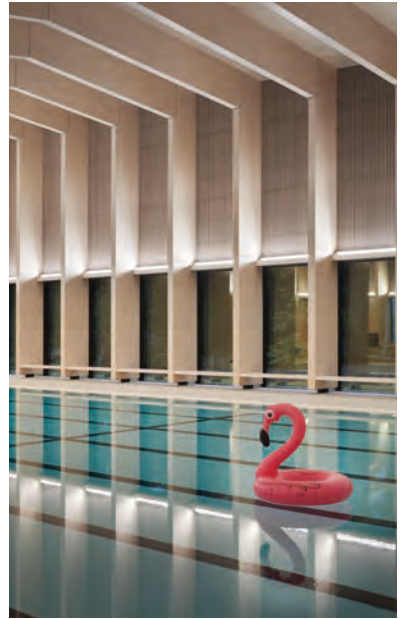
**Hawkins\Brown**  
**Swimming Pool**  
**£8.2m**  
**2017**  
**Masterplan**  
**Ongoing**

Another phase of the masterplan includes the transformation of the school's Grade II-listed Main House into a new Sixth Form centre and event space as well as landscape improvements to the surrounding area. Skelly & Couch tackled some challenging areas, including the building's highly decorative rooms and the reinstatement of the Orangery with a fully glazed roof.

The school's Main House refurbishment offers a unique opportunity to update and enhance the existing listed building, thereby reducing onsite carbon emissions as well as life cycle and capital costs too.

Skelly & Couch is also working to deliver a new Clubhouse and associated parking for the Old Freeman's Association, and considering a number of sustainable features, including ground source heat pumps that will extract heat from the ground through pipework.

The City of London Freeman's Swimming pool was a 2018 RIBA National Award winner and won three RIBA Awards for the South East Region in 2018. It was Highly Commended for Education & Public Sector and Structural prizes in the 2018 Wood Awards.



## Command of the Oceans

Command of the Oceans, a major project for The Historic Dockyard Chatham, secured the repair and preservation of a range of The Historic Dockyard's Scheduled Ancient Monuments and of the 18th century HMS Namur archaeological find, The Ship's Timbers. It created world-class galleries, interpretation and visitor facilities and external carparking and landscaping to reveal the story and significance of the dockyard and its defences during the age of sail. The development enhanced the wider Chatham Dockyard through the creation of a 4.5 hectare area of heritage-based public realm and a Discovery Centre for the dockyard.

The timber specialist recommendation was to leave the historic timbers of the Namur in as close to their historic existing condition (floor joists beneath the floor) as possible and to neither heat nor ventilate the space. The introduction of visitors to the space provides a thermal and latent load and Skelly & Couch advised on a natural ventilation strategy to minimise this impact.

All photos © H el ene Binet.





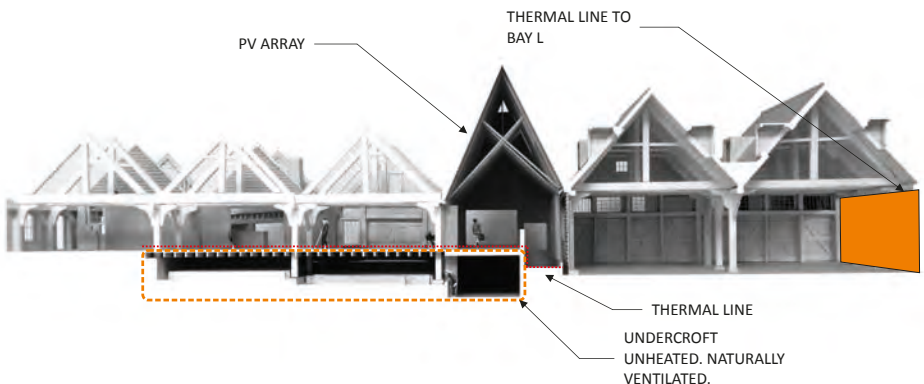
The project secured significant energy savings (both carbon and financial), identified as essential to the long-term sustainability of Chatham Historic Dockyard Trust in its corporate planning strategy. These were achieved through improvements to thermal insulation and the renewal of building services systems. Skelly & Couch provided full Mechanical, Electrical, Public Health and Environmental Design on the project.

Command of the Oceans was shortlisted for the RIBA Stirling Prize 2017. Winner of a 2017 RIBA National Award and three RIBA South East Awards, including a special Conservation Award and Building of the Year. Regional finalist in the 2017 AABC Civic Trust Awards and winner of a Medway Design and Regeneration Award.

**Baynes & Mitchell**

**£9m**

**2016**



## Farmiloe Building

An exemplar of the finest Victorian architecture, the Farmiloe Building is a Clerkenwell landmark, once home to lead and glass merchants George Farmiloe & Sons, and central to London's heritage of trade and commerce. Victorian warehouse floors – built as the strongest in London – extend from a spectacular glazed atrium revealing distinctive interiors, typified by exposed wrought-iron beams, aged paintwork, panelled offices, hoists and safes.

A frequent location for films, TV and fashion design, the conservation and refurbishment of the 40,000sqft Grade II-listed building transforms the warehouse building into a major commercial development in one of the capital's most vibrant areas, close to the new Crossrail station at Farringdon.

For the refurbishment of the original 150-year-old building, Skelly & Couch incorporated improvements to the thermal fabric that are sensitive to conservation concerns associated with its listed status. The building services and environmental engineering design featured a number of energy-saving measures, including exposed thermal mass in the new-build extension with cast-in air ducts feeding perimeter fan coil units for passive heating and cooling. Heat and coolth storage, storing heat recovered from the chillers and coolth from free cooling on the roof, significantly reduces the overall energy



© AAWW



© millerhare



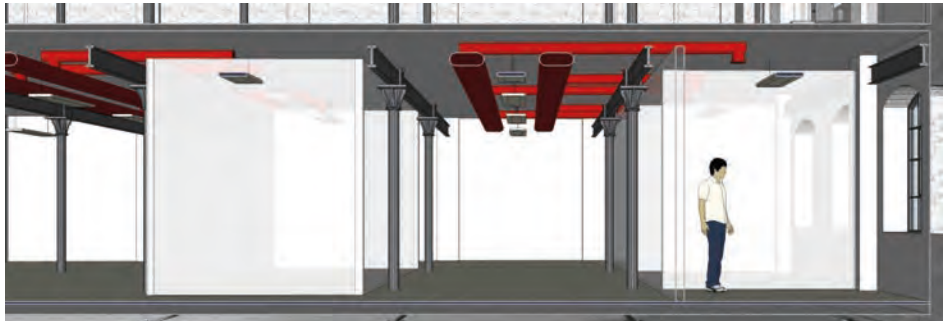
© AAWW

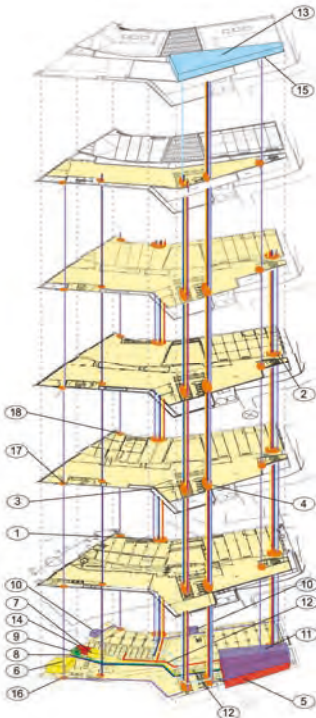
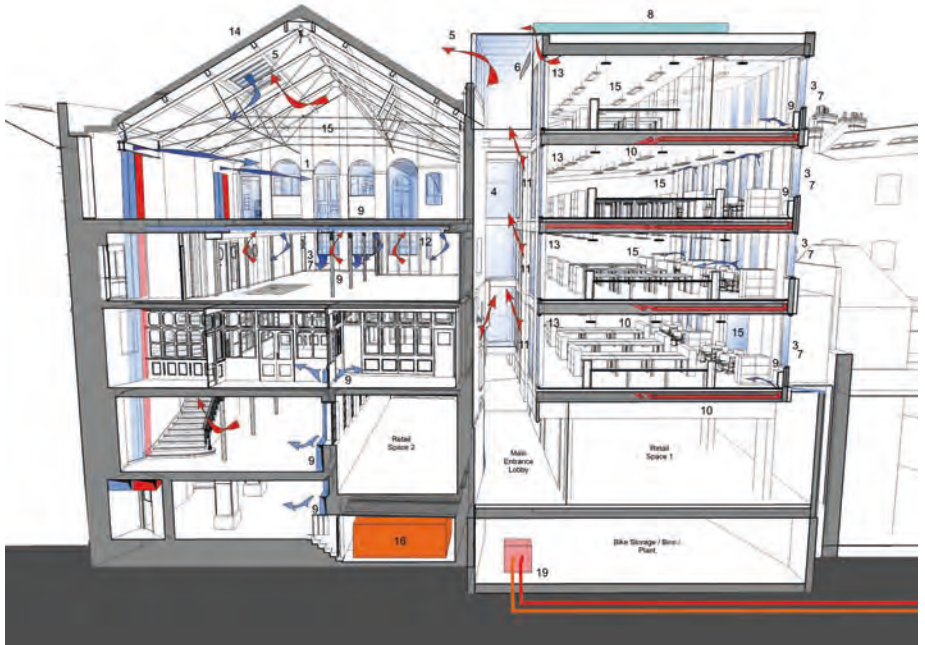
**Refurbishment: Feilden Clegg Bradley Studios**

**Fit-out: Gensler**

**£32m**

**2020**





consumption. Imaginative use of space to extend the stunning existing atrium into the new extension brings light deep into the building. The project has a BREEAM sustainability rating of 'Excellent'.

Following its successful work on the refurbishment, Skelly & Couch was invited to work on a major fit-out for the new London headquarters of concert tickets seller Live Nation at the Farmiloe. The environmentally sensitive and responsive design achieves high specification loft-style offices, with in-built flexibility to meet the client's future operational needs, and provides passive design solutions with additional cooling to meet peak requirements.



## Highgate Junior School

The New Junior School is an exciting new development for the high-profile Highgate School and involves the demolition of its existing Junior School and the construction of a new building occupying a highly visible new location. The project aims to deliver a state-of-the-art facility and includes approx 4,200m<sup>2</sup> of high-specification performance spaces, design technology laboratories, as well as science, music, drama and art facilities, all based around a central hub and designed to encourage a culture of open and accessible learning.

The central space helps control the environmental performance of the building by introducing abundant natural light from a glazed roof light and providing routes for natural air flow. Within the classrooms, exposed concrete soffits have been co-ordinated with acoustic finishes to provide thermal mass and excellent acoustics. Continuous raft lighting has been carefully integrated with the ceiling finishes, ensuring a cohesive and considered appearance. Passivhaus principles such as superinsulation, a PV array with 20% renewables and a very airtight design have been employed throughout to provide a building that should prove very cost- and energy-efficient to operate. Detailed internal climatic calculations and an iterative approach to the external façade design were undertaken to show this naturally ventilated building could provide a comfortable internal environment without cooling.

The project has been designed for a 100-year life in Revit to BIM level 2 with all modelling undertaken in-house to deliver a low-risk design solution, easily understood by Client and Contractor. Part of the project, shortlisted for the NLA New London Awards and a 2017 AJ Retrofit Award finalist, is the redevelopment of a Victorian villa. A 'Soft Landings' process provides support for cutting CO<sub>2</sub> emissions and connections are in place for a future ground source heat pump.

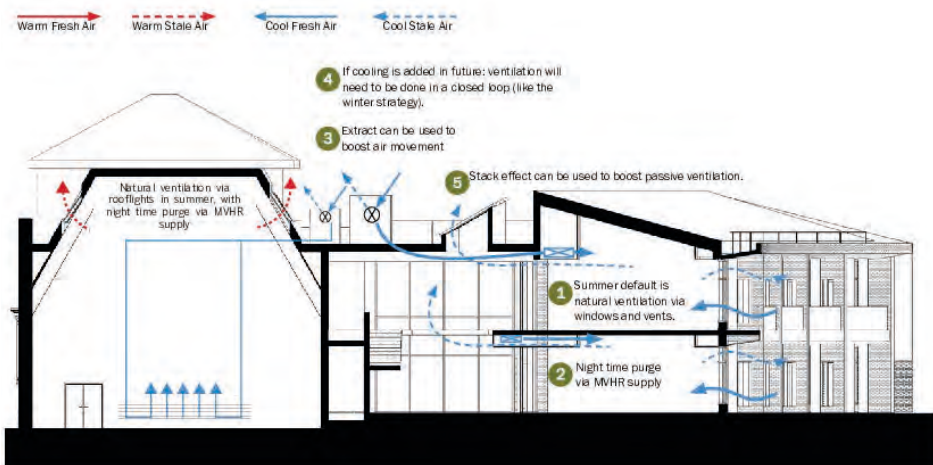
An AJ100 Building of the Year finalist and winner of a 2017 RIBA London Award. Project of the Year in the 2017 Education Estates Awards and a Regional Finalist in the 2018 Civic Trust Awards.

### Archetype

£15m

2015





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## King's School Canterbury

Skelly & Couch has carried out a series of commissions for the King's School Canterbury, within a beautiful setting near Canterbury Cathedral, a Scheduled Ancient Monument. Forming part of the school's £48m plan are five key projects: the Malthouse performing arts centre; Kingsdown House boarding accommodation; Mitchinson's Day House; an International College; and a new £10m science building in the Mint Yard (Precincts). The 19th century maltings houses a new drama centre for the school comprising drama and dance teaching facilities, a 350-seat auditorium, theatre foyers, as well as science and art teaching accommodation.



© Dennis Gilbert



© Dennis Gilbert

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Phase 1 of the Kingsdown House refurbishment created boarding accommodation for 30 pupils, including a common room, study area and kitchen. For phase 2 a new building was constructed for the older pupils of the house. The masterful conversion of a Grade II-listed building provided the Mitchinson's Day House for 70 non-boarding pupils, featuring study and social spaces, changing rooms and a kitchenette. The goal was to provide a high level of comfort, while maximising the use of passive design principles to minimise operational energy consumption.

The International College is the latest member of the historic King's family of schools and is a purpose-built teaching and residential building designed for international students to live and learn in Canterbury. It offers 34 en-suite bedrooms for 80 students, as well as flats for staff and specialist teaching facilities. Constructed in cross-laminated timber, the three-storey building wraps around a private courtyard for socialising and learning.

Attempting to resolve two challenges on the school's site, the Precincts Project aims to update and co-locate science facilities to bring them up to a world-class standard, and to increase dining provision to cater for a larger school population. There are also plans to construct a new teaching block, housing labs within a World Heritage Site with Grade I-listed surroundings and a rich archaeological history.

Kingsdown House was Winner of three 2019 Canterbury Society Design Awards and a 2018 Civic Trust AABC Conservation Commendation.

© Studio Archetype



© Tim Ronalds Architects



© Studio Archetype



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**Walters & Cohen Architects**

**Malthouse: Tim Ronalds Architects**

**£48m**

**2020**

## ORTUS Learning and Events Centre

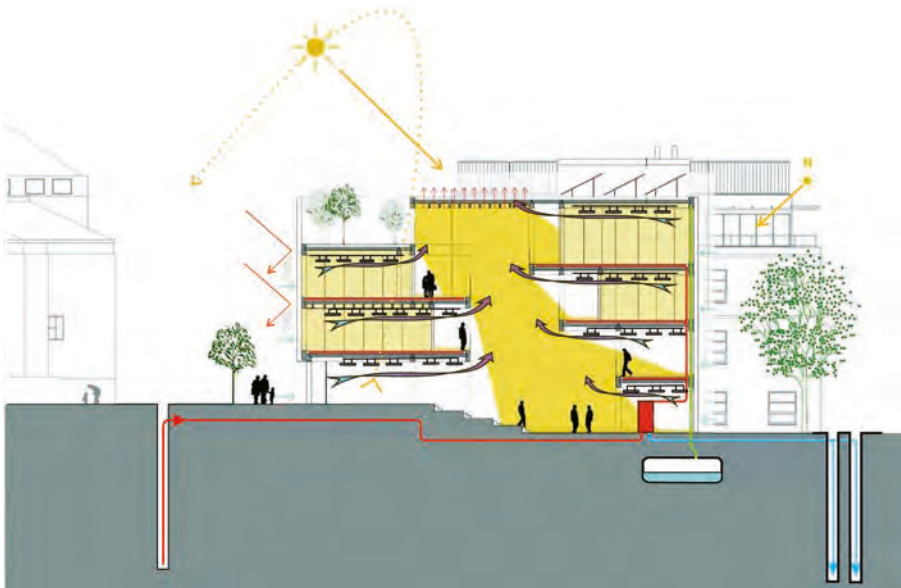
ORTUS is a stunning new learning and events centre based in Camberwell, South London, adjacent to the world-renowned Institute of Psychiatry, Maudsley Hospital and King's College London. It was named Building Project of the Year (up to £10 million) in the 2014 British Construction Industry Awards and won a 2014 RIBA National Award. The 1,550sqm building split over seven levels, is designed as an inspirational and flexible learning space, promoting mental health and well-being through networking, social media and Wi-Fi.

Striking architectural features and sustainable

technologies underpin this meticulously-planned learning environment, which is open to all and houses teaching and conference facilities, a community café and exhibition spaces. The building was conceived as a free-standing pavilion with multi-functional, connected spaces positioned at half-level intervals around a central atrium. The central space, optimised window design and floor level offsets allow abundant daylight while controlling solar gain.

Manual and automated natural ventilation, coupled with profiled soffit and exposed fair-faced concrete

All photos © Jack Hobhouse



brickwork, maximise the effects of thermal mass. The primary thermal source is a closed loop ground source installation consisting of seven 120m vertical loops and a simultaneous heat/cool pump unit, partly powered by a roof-mounted photovoltaic array. An integrated KNX system controls HVAC and lighting.

Skelly & Couch continues to assist social enterprise Maudsley Learning with the 'Soft Landings' aftercare process of energy monitoring and effective operation of the building, which helps fine-tune systems, improves energy performance and encourages

occupiers to make best, efficient use of the building.

The iconic ORTUS is a symbol of culture change. A clear vision, collaborative approach and strong respect for the environment will all ensure that ORTUS is able to adapt and remain at the cutting edge of world-class innovation for decades to come. The ORTUS has a BREEAM sustainability rating of 'Excellent' and is EPC 'A'-rated.

Named Building Project of the Year (up to £10 million) in the 2014 British Construction Industry Awards and winner of a 2014 RIBA National Award.



**Morris+Company**

**£4.65m**

**2014**

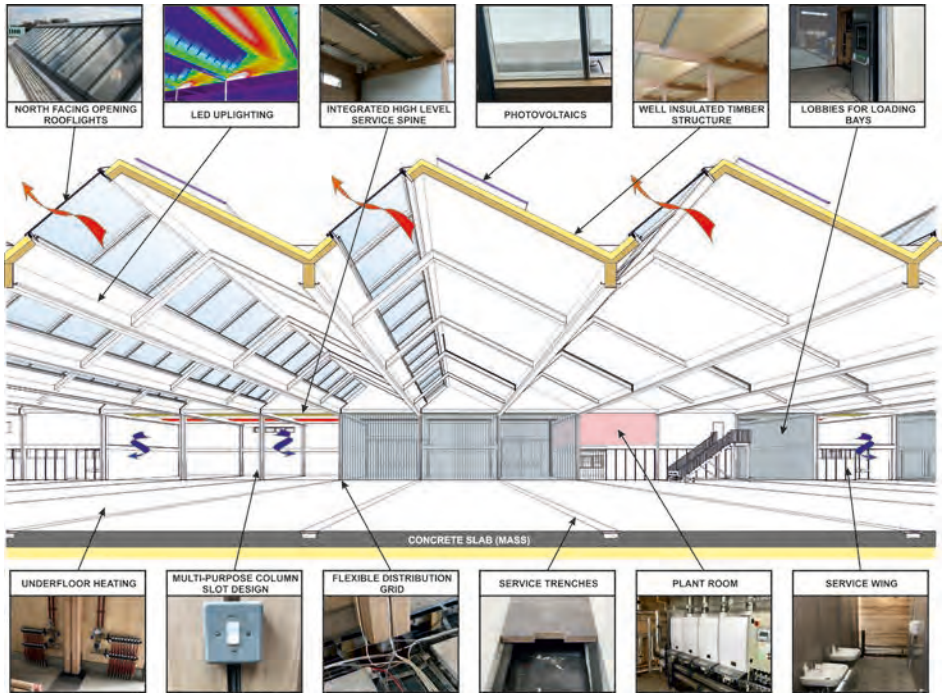


## Vitsoe

The project is the development of a truly universal and multi-functional building for iconic British furniture manufacturer, Vitsoe.

The site of the new building, which was formerly the location of the Ford foundry, is 3.3 acres and, like the company's renowned 606 Universal Shelving System, the building is an extension of Vitsoe's system thinking. As well as being naturally ventilated and day-lit via its north-facing sawtooth roof-lights, cross ventilation is provided by prevailing wind and heat in summer rises into the high ceilings. The Vitsoe HQ is the first building in the UK with a structure made completely of a newly-developed beech laminate-veneer lumber (LVL) - a naturally adaptable material. This hardwood is high performance engineered and permits beams and columns to have smaller cross sections than softwood glulam. The 1,020 cubic metres of this material used for the structures represents 806 tonnes of sequestered carbon, resulting in 612 tonnes of carbon being retained in the building.





Vitsoe and Martin Francis/  
Waugh Thistleton

£5.7m

2017

Mark Skelly, Founding Director of Skelly & Couch, commented: "In the modern world of green-wash and target/checklist-driven design, it is easy to forget that a sustainable building is nothing more than a well-designed building. Well-designed buildings are robust, flexible and adaptable, designed not just for now but with possible future uses and climates in mind.

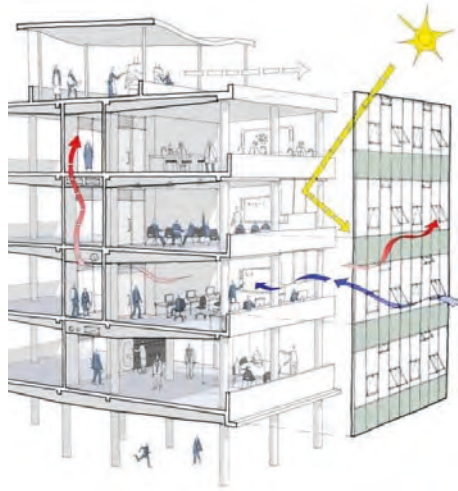
"A good starting position can be found in Vitsoe's own core products. The principles of simple, well-resolved, robust designs, that are elegant, legible and practical, whilst also being affordable over their life cycle, are all principles that are transferable and can be seen in the building in various forms: the natural breathable materials, the exposed services that conform to a set hierarchy when integrated with the structure, the refinement of details.

"But like Vitsoe the company, a building is more than just an assembly of components. It is a place for people to work and play and flourish."

## Ark Putney Academy

A complete refurbishment of the Grade II-listed building, which aimed to create an inspiring environment suitable for modern teaching at Wandsworth's most improved secondary school. For Skelly & Couch, the EPC 'A'-rated project involved a site-wide energy strategy for the school, with practical and technical design advice on phasing and the provision of temporary school buildings, to ensure the school curriculum was maintained in temporary accommodation on site. Extensive work was carried out on the design of the school façade, balancing listing constraints with thermal and environmental factors and engaging the support of English Heritage. Skelly & Couch also devised an energy strategy for the adjoining new-build residential development.

**Hawkins\Brown**  
**£23m**  
**2015**







## Battersea Arts Centre

Initially, an overall masterplan was developed and this was subsequently broken down into a number of phases; the first phase included the renewal of house, work and performance lighting and theatre performance infrastructure to the Grand Hall. The second was to expand this infrastructure throughout the rest of the building including relocation of office and provision of residential accommodation. The final Phase of works is the reconstruction of the Grand Hall, which was destroyed by a fire in March 2015. The external envelope and roof of the hall was rebuilt to match the original design, whilst internal elements of the Grand Hall were preserved where possible; features of the fabric that were lost in the fire were reinterpreted, such as a new timber lattice ceiling that reflects the original decorative plaster ceiling, improving acoustics and allowing services and theatre technology to be installed above and through the ceiling.

Winner of a 2019 RIBA National Award and two 2019 RIBA London Awards: London Regional Award and Client of the Year.

**Haworth Tompkins**  
**£15m**  
**2018**



© Fred Howarth



© Fred Howarth



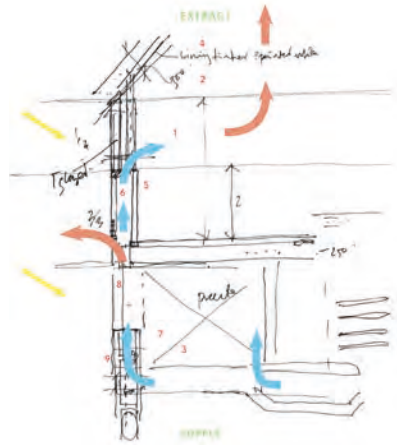
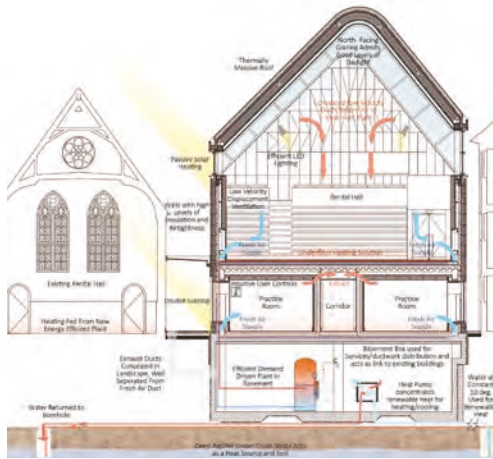
## Bishop's Palace House - Kingston Riverside

This striking redevelopment of a former 1970s brick car park and shopping centre comprises six high-profile riverfront restaurants, a theatre and circus space. Built within the River Thames Floodplain, the design had to allow for the river to flood the site periodically. Flood vents were incorporated into the units to offset the loss of floodplain that the project would otherwise have presented. Photovoltaic panels were installed to offset 10% of the CO<sub>2</sub> consumed by the new-build elements. Skelly & Couch is working on a new phase of the development, which adds 100 flats and two floors of commercial space to the retained restaurant areas of the site.



**Haworth Tompkins**  
**£3m**  
**2014**





## Brighton College Music School

Brighton College Music School was the first phase of a larger performing arts centre that will complete within a collection of Grade II-listed buildings. Skelly & Couch's site-wide energy masterplan gave recommendations for rationalisation to achieve energy savings and phased plant replacement and renewables. Mechanical ventilation has been designed to stringent acoustic criteria. An analysis of energy strategy options led to the implementation of an open loop borehole installation designed to serve this development and future new buildings on the site. A new central plant room allows for existing buildings to benefit from renewable heat and an extensive daylight/solar analysis will ensure that glare and overheating are eliminated.

Shortlisted for a 2017 RIBA South East Award.

**Eric Parry Architects**  
**£6.5m**  
**2016**



All photos © Héliane Birnet





## Bush Theatre

Phase one involved the conversion of the former library into a theatre, and Phase two comprised the refurbishment of the existing offices and added new performance and rehearsal spaces. The new flexible studio, seating between 50 to 70 people, has enabled the theatre to increase the number of programmed shows. The space is highly multifunctional, with opening wall panels that let in natural light to run daytime workshops. The front-of-house spaces feature vibrant wall and ceiling paintings by local artist Antoni Malinowski, and a new attic rehearsal room enables actors to rehearse all shows on site, which previously was not possible.

'Highly commended' in the 2017 AJ Retrofit Awards Cultural Building of the Year category; a best Cultural project finalist in the inaugural AJ Architecture Awards 2017; Regional Finalist in the 2018 Civic Trust Awards; shortlisted for the Selwyn Goldsmith Award.



**Haworth Tompkins**  
**£4.5m**  
**2017**



## Carnival Village

A new home for the Carnival Village Trust, as well as the Association of British Calypsonians, Ebony Steel Band Trust and Yaa Asantewaa Arts. It includes a flexible exhibition/performance space, education and training workshops, a 60-seat presentation theatre, two dedicated rehearsal spaces for the development of steel pan music, a dance studio, business advisory services and a radio station. Through optimising day-lighting to all spaces, developing an energy-efficient ventilation and lighting control, adopting a sustainable urban drainage scheme, including rainwater recycling, and extensive consultation with the planners, Skelly & Couch was able to justify the sustainability of the scheme without the use of renewables.

Winner of a 2013 Civic Trust Commendation.

**Foster Wilson Architects**  
**£3m**  
**2011**



## Donmar Warehouse - Dryden Street

The conversion of a 19th century warehouse into a new rehearsal, education, administration and ancillary space. An energy usage reduction of at least 20% was achieved through a combination of improved building fabric, enhanced natural ventilation, high efficiency heating plant, high efficiency lighting, light controls, sub-metering and controls, and the introduction of renewables via a solar thermal array. Graphical representations show a 23% improvement in energy performance and a 19% improvement in CO<sub>2</sub> emissions. Following the success of this project, Skelly & Couch has been appointed to carry out a complete refurbishment of all M&E services at the Theatre itself.

**Haworth Tompkins**  
**£2.5m**  
**2014**



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## Ethical Property Company

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Planned to be the tallest engineered timber building in London, this project involves a two-phase redevelopment of a BREEAM 'Excellent'-graded block of offices in Bethnal Green. The first phase comprises the retention and transformation of most of the existing building into the Green House - a new, environmentally friendly, shared office space. The second phase includes the addition of a new building to the rear, to deliver versatility to the new office space. There is a strong emphasis on natural ventilation for the building, which is made possible through the addition of a double-skin façade to facilitate internal ventilation.

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**Waugh Thistleton Architects/Veretec**  
**£17m**  
**Ongoing**



## Floating Cinema

The brief was to deliver power to the cinema in a way that would allow films to be displayed without being moored to a power supply nor powered by the boat's engine. The solution was to invest in a hybrid battery and engine system that allowed 3-4 hour film sessions, using sustainable biodiesel as opposed to regular diesel and coupling this to a bank of marine batteries. This involved some careful design for risk mitigation through successful research, and challenged conventional boat building wisdom. The Floating Cinema continues to power the boat and cinema using biodiesel, which means the energy use is effectively carbon zero.

**Morris+Company**  
**£80,000**  
**2013**

### HybridMarine

### Canal boat Hybrid System







## Hill House

This project retains the existing building and converts 12 floors to residential use, housing over 150 flats and recreational facilities. The redevelopment involves complete internal refurbishment, re-cladding of the existing façade and general improvements to the immediate streetscape. Skelly & Couch enhanced the building façade to provide thermal control and offered natural ventilation rates catering for both overheating and fresh air. The residential block is estimated to provide 37% less gas consumption and almost 70% less electricity than its previous office use, leading to an overall carbon reduction saving of 72%, or 916 tonnes of CO<sub>2</sub> for the entire scheme.

**Hawkins\Brown**  
**£20m**  
**2017**



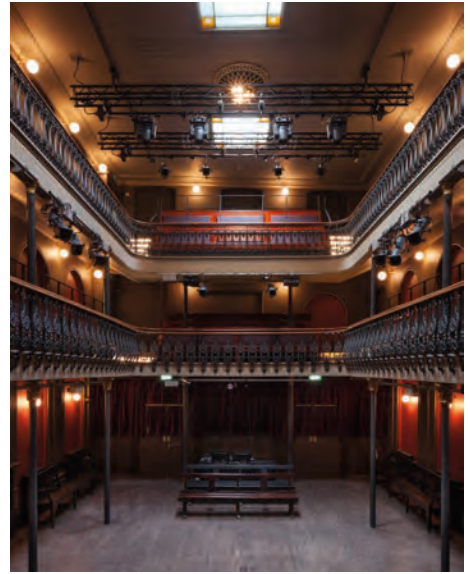


## The Horniman Museum

This Heritage Lottery-funded project formed part of the Horniman's wider ambition to create a better link between its museum and the gardens. The design includes a number of sustainable features such as timber construction methods; ground source heat pumps; rainwater recycling; daylight dimmable lighting and heat reclaim ventilation. The design proposals also bring back into use two much-loved existing facilities; the Dutch Barn and the Bandstand. The Horniman Gardens lie within the Forest Hill Conservation Area and are Grade II-listed in the English Heritage Register of Parks and Gardens of Special Historic Interest. Skelly & Couch provided Building Environmental, Acoustics & Services Engineering consultancy services.

**Walters & Cohen Architects**  
**£1m**  
**2011**



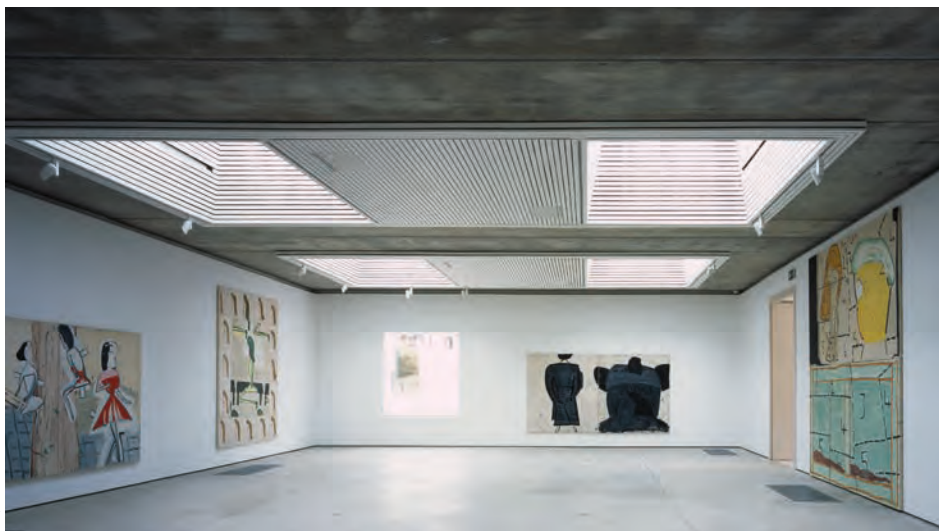


## Hoxton Hall

Hoxton Hall is a Grade II\*-listed and very rare surviving Victorian music hall located on bustling Hoxton Street in East London. In 2010 Skelly & Couch contributed towards a masterplan for the building's development. It comprised the development of the community arts facilities, restoration of the listed music hall and a new extension, providing improved foyer space and residential accommodation. Phase one of the development was successfully completed in 2012, and Phase two included restoration of the hall and an improved entrance facility. This phase of work has listed building consent and planning approval, and construction started in 2014. Phase two work is part funded by the Heritage Lottery Fund.



**Foster Wilson Architects**  
**£2.3m**  
**2015**



## Jerwood Gallery - Hastings Contemporary

Sustainability was embedded in the design of the gallery from the outset, influencing orientation and plan layout, as well as materials and servicing. Skelly & Couch undertook a detailed analysis of renewable energy options, including life cycle costing (financial and CO<sub>2</sub>) and ongoing maintenance. Since museums demand exacting standards of temperature and humidity control, through consultation with the Tate, Skelly & Couch successfully developed an approach to the environmental control that reduced energy consumption whilst adequately preserving exhibits. The building is heated using a ground source heat pump, taking advantage of the beachfront location's proximity to the practically infinite heat source of the sea. The project achieved an 'Exemplar' rating at design stage using an industry standard Sustainability rating tool.

Winner of a 2013 National RIBA award. It has also been granted a 2013 Civic Trust Award and a 2012 Public and Community Award from Sussex Heritage Trust.

**HAT Projects**  
**£4m**  
**2012**

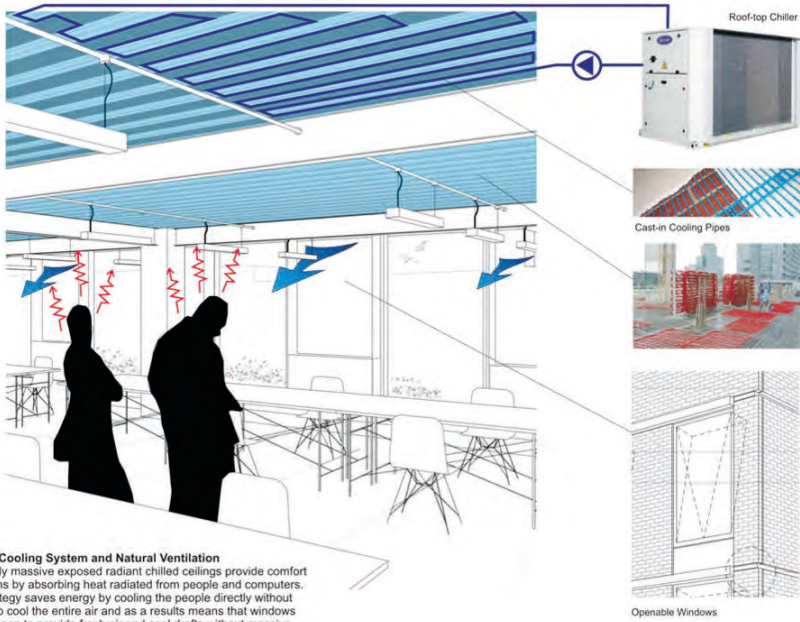


## The Lady Eleanor Holles School

A new music and art department, a new 350-seat purpose-built theatre and some new teaching and dining accommodation for a leading independent girls' school in London. The design was developed to include high levels of natural light and ventilation in non-performance spaces, good air-tightness values and heat reclaim ventilation in performance and serviced areas. The roof of the Auditorium is covered with photovoltaic panels to generate renewable electricity, designed to meet the planning authority's 20% renewable requirement and has been granted a BREEAM rating of 'Excellent'. Services provided included M&E, environmental and acoustic design advice.

Winner of a 2014 RIBA London Award.

**Walters & Cohen Architects**  
**£7m**  
**2013**



**Cast In Cooling System and Natural Ventilation**  
 Thermally massive exposed radiant chilled ceilings provide comfort conditions by absorbing heat radiated from people and computers. The strategy saves energy by cooling the people directly without having to cool the entire air and as a result means that windows can be open to provide fresh air and cool drafts without massive energy penalties.



© Mark Hadden

## Mansel Court

This project was one of two completed for the Low Carbon Workplace. The building was stripped back to its concrete shell, extended to increase lettable area and enhancements made to the building envelope and services. Skelly & Couch introduced a low carbon cooling alternative which made the best use of the existing and new elements of exposed thermal mass. In existing areas, retained concrete soffits were covered with a micro-capillary cooling mat, which was then rendered with a high conductivity plaster. In the new build, elements pipework was cast into the new concrete slabs, which linked to roof-top chillers, allowing the building to store cool night-time air and reduce daytime cooling loads.

Mansel Court won the 2015 Guardian Sustainable Business Innovation Award for the Built Environment Category.

**Morris+Company**  
 £6m  
 2013

All photos © Tim Crocker



## Mountview Academy of Theatre Arts

This project is a new building for one of the leading theatre arts schools in the country. Located over five floors, the building includes a 250-seat auditorium, TV and recording facilities, dance and acting studios and backstage changing facilities. A new public space, café and rooftop bar have been created which are open to the community. In response to complex technical challenges, Skelly & Couch delivered a range of innovative design solutions including coordinating the services infrastructure with the demanding technical requirements of the theatre and developing a natural ventilation strategy for the dance and acting studios.



**Carl Turner Architects**  
**£16m**  
**2018**





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## Opera Terrace, Covent Garden

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The project involves the sensitive upgrade of an existing restaurant facility on Covent Garden's famed Opera Terrace within the historic Grade II\*-listed Market Building. Significant co-ordination took place with the goal of improving energy efficiency and serviceability of all fixed building services across the Market Building, while minimising disturbances to historic features or building fabric. The site-wide masterplan element has involved energy analysis and feasibility studies to reduce the carbon footprint of the iconic landmark, while improving comfort, functionality and lettable value; all within the constraints of the existing building.

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**Eric Parry Architects**  
**£6m**  
**2017**





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## Paradise Gardens

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Paradise Gardens is a sheltered residential development of six family homes surrounded by communal landscape gardens in Hammersmith. Skelly & Couch provided the environmental and building performance strategies to deliver a sustainable design solution, including thermal modelling and daylight studies. The houses have cobbled courtyards and allow interiors to be filled with natural light. Paradise Gardens' high standard of build is set to provide a benchmark for similar developments in the capital and across the UK.

A 2017 National RIBA Award winner and Housing Project of the Year in the inaugural AJ Architecture Awards 2017.

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**Lifschutz Davidson Sandilands**  
**£4.5m**  
**2016**



## The Perse School, Cambridge

The new-build, EPC 'A'-rated Peter Hall Performing Arts Centre for The Perse School in Cambridge consists of a 400-seat theatre with classrooms, support spaces, and a foyer space including a large, day-lit rehearsal room and exhibition space. Unusually, the auditorium also features windows admitting natural daylight. The galleried auditorium uses combined natural and mechanical ventilation and has the additional architectural, as well as engineered, feature of acoustically attenuated chimneys. A ground source heat pump installation provides simultaneous heating and cooling and the building also boasts a 13kw PV array and green roof.

Winner of a 2019 RIBA National Award and a 2019 RIBA East Award.

**Haworth Tompkins**  
**£10m**  
**2018**



## Portsoken Pavilion

The striking Portsoken Pavilion was created as a focal point, in the form of a café and community space run by social enterprise Kahaila, which transforms the reconfigured Aldgate roundabout in the heart of the City of London. The 325m<sup>2</sup> Cor-ten steel structure reflects the asymmetrical angles of the City of London Information Centre, folding down to meet the ground at three triangular support points, with glazing in between. The interior soffits are clad with white laminate timber panels, punched with slots to aid the acoustics. Two large asymmetrical roof lights sit over the central counter drawing light into the building.

**Make Architects**  
**£4m**  
**2018**

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## Preston Bus Station

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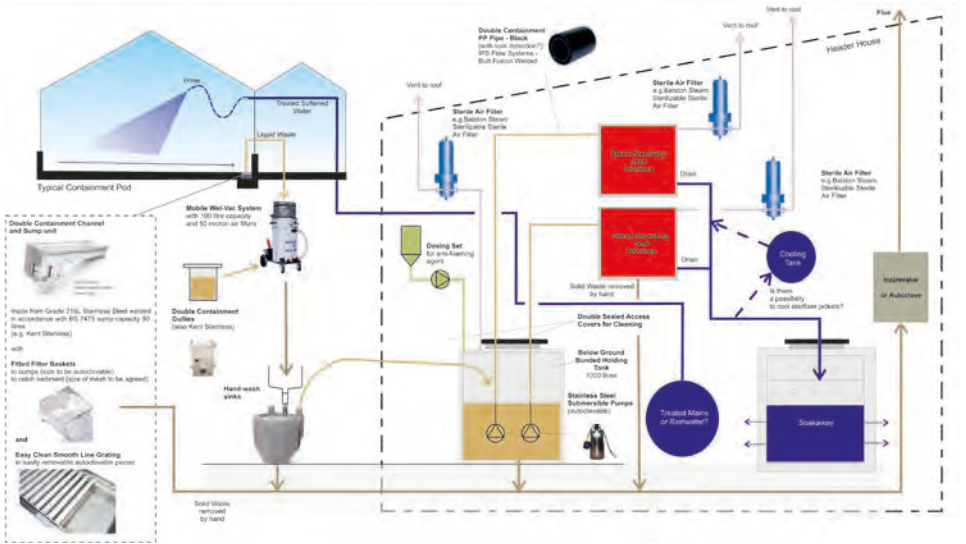
Originally designed by BDP and completed in 1969, the bus station is a renowned, Grade II-listed Brutalist building, which Skelly & Couch has helped to return to its former glory through modern technologies, sensitive refurbishment techniques, and by enhancing the functionality and use of the bus station concourse. An effort was made to upgrade the existing lighting and technology provisions to create a space that is well lit, welcoming, technology friendly and energy efficient in its use of electricity. The lighting design in particular highlights and enhances the iconic building's dramatic architectural heritage.

Winner of a 2019 National Award and three 2019 RIBA North West Awards, including North West Regional Award, Client of the Year and Conservation Award.

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**John Puttick Associates**  
2018





## Quarantine House - Royal Botanic Gardens Kew

This project is the provision of a new quarantine facility at the Royal Botanic Gardens Kew. The brief was to create a hermetically sealed, air conditioned glass house, designed to containment levels standards with HEPA filtration and steam sterilisation, that was as sustainable as possible. The strategy adopted was to utilise the heat collected by the glasshouses and store it using a heat recover chiller coupled to a heat and coolth tank. Other features include rainwater recycling, demand controlled ventilation and the adoption of a large CHP energy centre. Specialist facilities include totally sealed, air conditioned quarantine pods, glasshouse climate controls, irrigation systems, sterilised drainage systems, water treatment facilities, back-up generators.

**WilkinsonEyre**  
**£3m**  
**2011**



## Ravensbourne Student Accommodation - Greenwich Peninsula

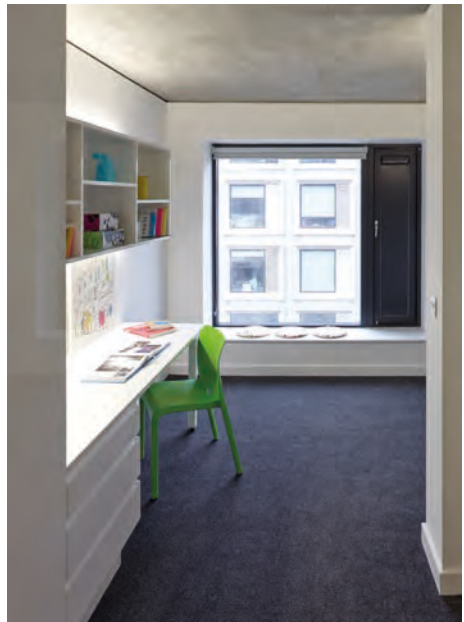
The project was to provide 280 student rooms within 8,200m<sup>2</sup>. Features of the buildings include high levels of thermal insulation and airtightness and good levels of daylight with natural ventilation throughout. These are the first buildings to be connected to the Greenwich Peninsula District Heating Network, which will make use of Combined Heat and Power. All of these factors contributed to the scheme meeting the London Plan's 40% carbon reduction target and it being awarded a BREEAM 'Excellent' Rating and an EPC 'A' rating. Each of the two residential towers has a fire fighting lift with mechanically assisted smoke extract.

Shortlisted for a 2015 RIBA London Award.

## Allford Hall Monaghan Morris £15m 2013



All photos © Rob Parrish





## Regent's Park Open Air Theatre

Regent's Park Open Air Theatre in north London is the only permanent outdoor theatre in the UK. The award-winning project replaced the changing room block, added new administration offices, upgraded the workshops, refurbished the studio and created a new entrance and box office. The new buildings, threading around existing structures and trees, form a series of linear elements culminating in the external public façade of natural and stained larch. Lightweight piles support a prefabricated, engineered timber structure that was erected on site in three weeks.

2013 New London Award for Public Buildings and 2014 Commendation by the Civic Trust.

**Haworth Tompkins**  
**£2.5m**  
**2012**

## Richmond Adult Community College

A dual to single campus rationalisation and centralisation project, developed over a number of phases and projects, where the existing M&E services were given a modern day energy efficient overhaul. Placed at a high level, building services are skilfully integrated with architecture and structure. Each space has been designed with flexibility in mind, with the exposed services carefully set out to allow for future reconfiguration of teaching equipment and layouts. All teaching areas are generously filled with daylight and naturally ventilated. Rooflights and clerestory windows have been incorporated wherever feasible.

Shortlisted for a 2016 RIBA London Award and winner of a 2016 Civic Trust Commendation.

**Morris+Company**  
**£6m**  
**2014**

All photos © Mark Hadden





## Vajrasana Buddhist Retreat

The refurbishment, for which Skelly & Couch carried out the full design of mechanical, electrical, public health and acoustics work, has created accommodation for 60 people, a shrine room, a commercial kitchen and dining facilities. From the outset, there was a strong architectural aspiration for the buildings and landscape to emulate the Buddhist religion, involving close collaboration with the client, the London Buddhist Centre. Owing to the rural setting, it was critical to limit mechanical plant noise, ensure the simplicity of services installations and deliver a high level of environmental comfort and sensitivity.

Winner of a 2017 RIBA National Award and RIBA East Award Building of the Year 2017. Shortlisted for a 2016 World Architecture Festival Award in the Religion category.

**Walters & Cohen Architects**  
**£3m**  
**2016**

All photos © Dennis Gilbert





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## Waddesdon Manor Pavilion

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This project involved the construction of a new visitor pavilion for the Rothschild Waddesdon Manor Estate. The pavilion provides ticketing and welcome facilities. National Trust membership opportunities, toilets and a bus stop, and the practical but contemporary design of the pavilion offers a discreet way of managing the enormous number of visitors welcomed by the Manor. Located within a Grade I-listed landscape, Skelly & Couch have developed an efficient way to provide the pavilion with heating, lighting and facilities. It has been designed to be a 'temporary' building with a 10-year design life.

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**Carmody Groarke**  
**£0.5m**  
**2015**



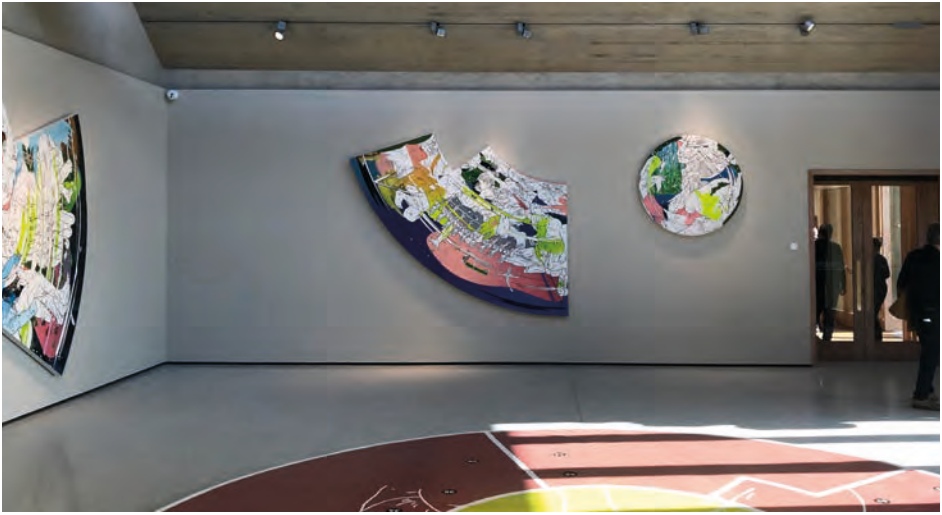


## Waingel College

The project was a 75% new build, 25% refurbishment phased development of an existing secondary school located next to a designated green gap between Woodley and Earley in Berkshire. The brief was to create a largely open plan school made up of four pavilions located around a large central courtyard. Skelly & Couch used innovative techniques to develop a design that did not overheat and that met the acoustic requirements of BB93. The design incorporates a number of sustainable features, including high levels of natural light, natural ventilation, efficient lighting and controls and a building energy management system.

Winner of the British Council for School Environments Architecture Award and RIBA Regional Award.

**Sheppard Robson**  
**£27.5m**  
**2011**



## The Weston, Yorkshire Sculpture Park

Set into a hillside with no gas or drainage connections, the highly-sustainable Weston visitor centre now houses a 140m<sup>2</sup> restaurant, gallery, foyer and shop. An air source heat pump provides high-efficiency heating and domestic hot water, saving over 50% of the energy otherwise needed for water heating. The gallery uses a complex humidity buffer, formed using hygroscopic materials, in conjunction with a standard thermal wheel heat recovery unit, to moderate the temperature and humidity without resorting to energy-intensive air conditioning. Natural ventilation, coupled with passive measures such as solar control glazing and a green roof, avoid overheating to create a comfortable environment in the café.

Winner of a 2019 RIBA National Award and three 2019 RIBA Yorkshire Awards, including Yorkshire Regional Award, Client of the Year and Building of the Year. A 2019 RIBA Stirling Prize finalist, cited by the judges as "an exquisite new gallery nestled in the Yorkshire landscape".

**Feilden Fowles**  
**£3.8m**  
**2019**

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## Windsor Walk

The extensive refurbishment and reinstatement of six derelict Victorian terraced houses in Denmark Hill, London for the South London and Maudsley Charitable Trust. The main objective of the project was to bring these 150-year-old buildings back from the brink of ruin and give them a sustainable future. Four of the houses were joined to create temporary living accommodation for families of patients, and two of the houses were kept as individual houses. The buildings were stripped back to the bare brick structure and new glazing and insulation added. The buildings were also provided with heat reclaim ventilation, Solar PVs, air source heat pumps and rainwater recycling.

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**Peter Sargent Architect**  
**£5m**  
**2014**

All photos © Jack Hobhouse





## Abbey Place

The arrival of the Elizabeth line (formerly Crossrail), together with the redevelopment of the Thamesmead estate, are paving the way for a vibrant new district in Abbey Wood, south east London, comprising two residential blocks, commercial spaces and a public realm. Skelly & Couch's services design is energy-efficient and passive in nature.

**shedkm Architects**  
**£60m**  
**Ongoing**



## Albany Riverside/Half Acre Brentford

Albany Riverside and Half Acre are joint projects of redevelopment and sites of Potential Strategic Importance (PSI). Albany Riverside provides 193 high-quality, sustainable homes, an abundance of amenity spaces and a commercial unit. The linked Brentford scheme Half Acre features the redevelopment of the Watermans Art Centre and the creation of nearly 300 homes.

**Morris+Company (Albany Riverside)**  
**Pollard Thomas Edwards Architects/Foster Wilson Architects (Half Acre)**  
**£65m**  
**Ongoing**



## Brighton College Sports and Science Centre

In this new state-of-the-art sports facility at Brighton College, Skelly & Couch is optimising environmental efficiency against comfort within a site-wide energy masterplan, which includes linking a new borehole network for renewable heating and cooling. The project is driven by a focus on design features and functional sustainability.

**OMA**  
**£32m**  
**Ongoing**

© dRMM Architects



### Brill Place - Somers Town

Brill Place is a new 27-storey residential tower in Camden in a parkland setting. Works cover new infrastructure for the building and a connection to the local Somers Town District Heating Network. Environmental features include photovoltaic cells, gas absorption heat pumps, carbon filtration and planted winter gardens for ventilation and pollution control.

dRMM  
£21m  
Ongoing

© Forbes Miasie



### British Academy

With sensitivity to the Grade I listing of this building in Nash-designed Carlton House Terrace, the restoration and improvements include the creation of a two-tier 220-seat auditorium and enhanced space for lectures, meetings and events. Bespoke designs of new mechanical and electrical systems are being undertaken to suit the constraints of the existing building and its listing.

Wright & Wright  
£10m  
2021

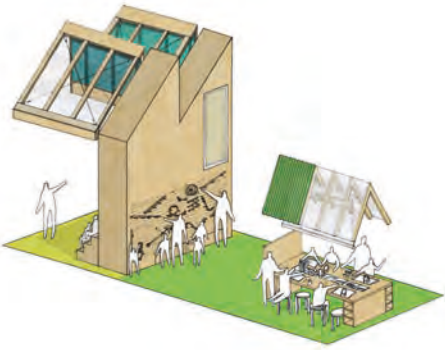
© Penoyre & Prasad



### Cambridge House - Birkbeck University

This redevelopment includes 440m<sup>2</sup> of additional teaching space for 610 students at Birkbeck, University of London. Skelly & Couch has responded to demanding site constraints with energy-efficient mechanical ventilation and cooling systems, delivering flexible-use environments. Photovoltaic panels and rainwater harvesting are among several innovative sustainable measures also introduced.

Penoyre & Prasad  
£7m  
2020



### Centre for Life Creativity Studio

For this new creative and exhibition space for Newcastle museum, Skelly & Couch carried out full M&E duties including the provision of heating/cooling and ventilation using a singleheat pump system, as well as installing new drainage services. The use of natural light has also been optimised with sawtooth roof lights leading out to the existing ETFE foil roof.

**Harper Perry Architects**

**£400,000**

**2019**



### Chetwynd Court, King's College Cambridge

This project involves the construction of a new 200-seat, multi-purpose auditorium located in the surrounds of a Grade I-listed Cambridge college. Skelly & Couch is carrying out M&E Design work to RIBA Stage 1. To minimise heritage impact, the auditorium is planned to be created underground.

**Abell Nepp**

**£13m**

**Ongoing**



### Contemporary Almshouse

The aim is to build a high-quality four-storey almshouse that will contribute to the long-term physical and social character of the area. The proposal is for 57 extra-care housing flats along with several communal spaces, facilities for an on-site warden, a well-designed residents' garden and shared public facilities.

**Witherford Watson Mann**

**£14.7m**

**2021**





## Dorset County Museum

Renovation and extension of the historic Grade II-listed Dorset County Museum to create a 'Collections Discovery Centre'. A closely-controlled visiting exhibition gallery, basement archive and collection stores, refurbished galleries and new workrooms bring the conservation work carried out by the museum to the forefront of the visitor experience. Skelly & Couch worked on the successful Heritage Lottery Funding application and design from conception to stage 4.

**Carmody Groarke**

**£15m**

**2021**



## Emmanuel College, Cambridge

Located in the heart of the centre of Cambridge within the Cambridge Historic Core Conservation Area, Emmanuel College is undergoing development featuring the refurbishment of the Grade II-listed Furness Lodge to provide a new student bar and teaching accommodation and the creation of 80 to 90 new en-suite undergraduate rooms.

**Stanton Williams**

**£20m**

**2022**



## Gascoigne Estate East

Appointed to one of London's largest regeneration schemes of three blocks containing 500 flats each, Skelly & Couch is providing full M&E Environmental design. Engineers are working to help develop a MUSCO (Multi-utility service company) enabling single point provision of heat, power, water, drainage and broadband across the site.

**White Arkitekter**

**£120m+**

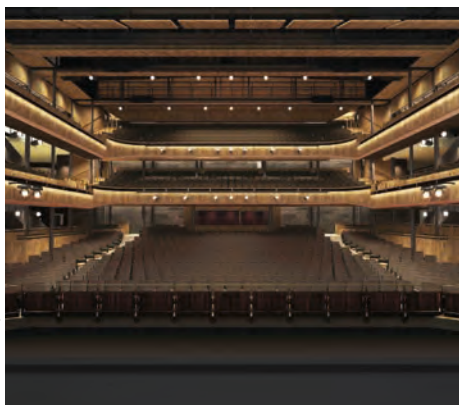
**Ongoing**



## Greenwich Design District

The Greenwich Design District is London's first purpose-built district designed for the creative industries, covering a 1.08-hectare plot on the Greenwich Peninsula with 16 buildings across seven districts. Eight architects have been commissioned to work on two buildings each, bringing the development to life with a vibrant cluster of affordable workspaces, galleries and studios.

**Various**  
**£44m**  
**2020**



## Hall for Cornwall

A substantial refurbishment to increase the capacity to around 1300 seats within the regionally-significant, Grade II-listed theatre. Skelly & Couch's work contributes to increased comfort and lower energy consumption, by means of a displacement ventilation system with heat recovery and by making use of waste heat from the auditorium cooling system to achieve BREEAM 'Very Good'.

**Burrell Foley Fischer**  
**£12.45m**  
**2020**



## Jackson's Lane Arts Centre

This celebrated Grade II-listed multi-arts venue is undergoing upgrades to visitor and technical facilities within the complex, which includes a 166-capacity theatre, studio and bar. Skelly & Couch is introducing natural ventilation strategies, improved thermal envelope by adding insulation and replacing windows, renewable energy (PV panels) and conservation works to the brick façade and windows.

**Citizens Design Bureau**  
**£5m**  
**2021**



## Kensington Palace Orangery

Skelly & Couch is contributing to two projects at the Grade I-listed, baroque Kensington Palace Orangery, a Scheduled Ancient Monument. The first provides space for a commercial kitchen serving the Orangery restaurant and a new learning centre for visiting children; while the other involves landscaping to the Parterre Gardens. Skelly & Couch has also been leading on conservation works and services within the Orangery.

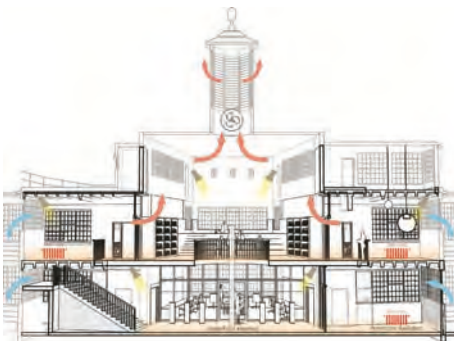
**Liam O'Connor/Purcell (New Build)**  
**Donald Inshall Associates (Orangery Conservation)**  
 2020



## The Landing Maidenhead

A major mixed-use development in the centre of Maidenhead is underway creating 519 homes, a 5,200m<sup>2</sup> office building and 3,400m<sup>2</sup> of retail. Our approach has been fabric first with close to Passivhaus standards which minimises the need for heating and therefore allowing a full electric design supported by a large PV array.

**Studio Egret West**  
 £100m  
 Ongoing



## Marlborough College Science Centre

Boasting a picturesque backdrop of natural beauty, Marlborough College is embarking on a significant and sensitive update of the fabric and facilities of its existing Science building which was Grade II-listed in 1970. The building is refurbished to create a new link building, central space and updated labs facilities.

**Allies and Morrison**  
 £15m  
 2020



### Mountbatten House

Located in Basingstoke, Mountbatten House is undergoing a Cat-A fit-out refurbishment and replacement of MEP services in the Grade II\*-listed office block. With Skelly & Couch providing energy and thermal modelling plans, these upgrades are set to improve the building's current energy use and carbon emissions.

### Feilden Clegg Bradley Studios

£18m  
2021

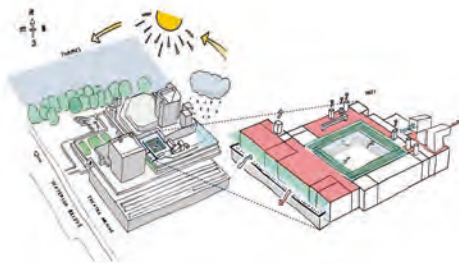


### Museum of Science and Industry, Manchester

The refurbishment of a Grade I-listed railway station, warehouse and Grade II-listed railway viaduct, with the addition of a new, special exhibition gallery space for the Museum. Situated on the site of the world's oldest surviving passenger railway station, this historic project is designed to meet Government Indemnity standards.

### Carmody Groarke

£4m  
2022



### National Theatre Costume Workshops

Based on the South Bank, the National Theatre's existing 5th floor workshop department is being refurbished to meet up-to-date compliance requirements and better meet the needs of the costume workshop users. This will include new hair and make-up departments with the ambition to reduce energy consumption wherever possible.

### Tom Wilson Studio

2022

© David Kohn Architects



## New College, Oxford

The provision of new student accommodation (100 bedrooms), and underground conference and lecture theatre facilities for Oxford University's New College. The quad development also includes a music hall, the extension and refurbishment of a neighbouring primary school and an underground car park. Among many sustainable features are a combined heat and power energy centre and ground source heat pipes.

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**David Kohn Architects**  
£20m  
Ongoing

© Foster Wilson Architects



## Polka Theatre

The aim of the refurbishment at the renowned Polka Children's theatre in Wimbledon is to modify and improve systems in existing space and to provide a new rehearsal/performance space for 1-5 year olds. The theatre will be opened up by expanding the front of the building with foyers, a café and a shop, incorporating many sustainable features.

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**Foster Wilson Architects**  
£3m  
2020



## Rhodes House

Considered a hidden gem in the heart of Oxford, Rhodes House is undergoing a refurbishment, providing new office and residential accommodation and a conference facility. Through the implementation of sustainability strategies, any changes provide efficient and resilient systems while still conserving the existing fabric of the listed building.

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**Stanton Williams**  
£20m+  
2022



### RHS Garden Wisley - Hilltop Building

Skelly & Couch is providing M&E, environmental design and analysis for an international horticultural research, visitor and archive building. Energy usage is minimised by heavyweight walls around the herbarium to reduce temperature fluctuations; ground-coupled air ducts to produce fresh air; and hygroscopic materials to help passively reduce swings in humidity levels, among many other energy-saving features.

WilkinsonEyre

£21m

2020



### St Hilda's College, Oxford

A £12 million riverside extension will be the first new major front-of-house redevelopment for an Oxford College in a number of years. Skelly & Couch are investigating the feasibility of a river-coupled heat pump for site-wide heating and cooling. Other features include the use of thermal mass, as well as generous daylight and landscape planting to create a more comfortable living and working environment.

Gort Scott

£12m

2020



### St Peter's RC Seminary, Cardross

Skelly & Couch contributed to the first phase of the 'rescue' and restoration of one of Scotland's greatest Modernist buildings, designed by Gillespie, Kidd and Coia, which has lain in ruins for 25 years. The most significant post-war modern building in Scotland, its initial scheme was designed to include partial restoration and reclamation alongside new interventions.

Avanti Architects

Ongoing



### Shakespeare's Globe West Block

Shakespeare's Globe West Block project involves a redevelopment of the exhibition spaces, administration areas, library and archive in the West Block, and will contribute to achieving the Globe's objective for a more sustainable site.

**Allies and Morrison**  
£18m  
Ongoing



### Talent House / Sugar House Island Primary School

Part of the Strand East Masterplan, this is a new hub for education at Sugar House Island. Skelly & Couch is developing new dance and music studios for two urban culture organisations and a primary school to serve the residential development at Strand East.

**Citizens Design Bureau (Talent House)**  
**Penoyre & Prasad (Sugar House Island Primary School)**  
Ongoing



### Theatre Royal Drury Lane

The Grade I-listed Theatre Royal Drury Lane is set to return to its place as the prime venue for musical theatre in London. This project will celebrate the theatre's architectural and historic significance through the restoration and rebuilding of features, hopefully rejuvenating the relationship between the performers and the audience.

**Haworth Tompkins**  
£34m  
2020



### Tring Park School for the Performing Arts

This project provides a new boarding house and hub building for Tring Park School for the Performing Arts. Skelly & Couch has designed naturally-ventilated classrooms and heat recovery systems in the bedrooms whilst ensuring the new buildings are sympathetic to the historic and listed status of the existing school campus.



**Burrell Foley Fischer**

**£10m**

**2019 (Boarding House) 2020 (Hub Building)**



### Wadham College, Oxford

The project is to build a new, 135-bed student residential building for the 400-year-old college. The developments will optimise energy efficiency through good passive design, which has influenced layout, orientation, landscaping and materials. Skelly & Couch's plans will deliver a proportion of low carbon energy and focus on natural ventilation throughout the building.



**Allies and Morrison**

**£20m**

**Ongoing**



### Warburg Institute

At the forefront of the global research platform, the Warburg Institute, part of the University of London, is undergoing a substantial refurbishment and extension, addressing the building's infrastructure issues and developing a new lecture theatre and events space. The environmental control of the libraries is greatly improved by ventilation and passive measures to maintain a stable environment for the centre's valuable material.



**Haworth Tompkins**

**£8m**

**2019**



© James Corst Architects



## White Eagle Lodge

Skelly & Couch is delivering a new temple building for the White Eagle Lodge spiritual organisation, located in the South Downs National Park, East Hampshire. The plans comprise a one-storey building covering an area of 559m<sup>2</sup>, with a shallow loop ground source heating design to deliver sustainable heating and no gas on site.

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**James Corst Architects**

**£1.7m**

**2021**

© Design Engine Architects



## Winchester College Masterplan

Skelly & Couch has contributed to all aspects of the masterplan for BREEM 'Excellent'-graded Winchester College. It creates a new sports centre, consisting of a 25-metre swimming pool, a fitness suite, and a sports hall for school and public use, along with a district heating system and support buildings. The swimming pool will use a wastewater heat recovery system.

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**Design Engine Architects**

**£30m**

**2022**

# Architects

abell nepp

ADAM KHAN  
ARCHITECTS

ALLFORD  
HALL  
MONAGHAN  
MORRIS

Allies and Morrison

ARCHITYPE

AVANTI  
ARCHITECTS

BAYNESANDMITCHELLARCHITECTS

BURRELL | FOLEY | FISCHER  
ARCHITECTS AND URBAN DESIGNERS

Carl  
Turner  
Architects

CARMODY  
GROARKE

citizens  
design  
bureau



DESIGNENGINE  
ARCHITECTS



Eric Parry Architects

FeildenCleggBradleyStudios

FEILDEN FOWLES

Foster  
Wilson  
Architects

Gensler

GORT SCOTT

harper perry

HAT Projects

Hawkins\|  
Brown

Haworth  
Tompkins

architects  
Henley  
Halebrown

JAMES GORST ARCHITECTS

JOHN  
PUTTICK  
ASSOCIATES

Lifschutz  
Davidson  
Sandilands  
Architects  
Design consultants  
Urban planners

make

marks barfield  
architects

MORRIS+COMPANY

OMA

Penoyre  
Frost  
&  
Partners

Pollard  
Thomas  
Edwards

REED  
WATTS

shedkm

SHEPPARD ROBSON

STANTON  
WILLIAMS

Studio  
Egret  
West

Tim Ronalds Architects

Tom Wilson  
Studio

veretec   
A member of the Aukett Swanke Group

WALTERS  
& COHEN  
ARCHITECTS

WAUGH THISTLETON ARCHITECTS

white

WilkinsonEyre

WITHERFORD WATSON MANN  
architects

WRIGHT & WRIGHT  
ARCHITECTS

## Clients

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Abbey Wood LLP

Abell Nepp

Alfriston School

Battersea Arts Centre

Brighton College

Bush Theatre

Canadian & Portland Estates Plc

Capco

Centre for Life

Chatham Historic Dockyard Trust

Chichester Festival Theatre

Citizens Design Bureau

City of London Corporation

City of London Freeman's School

Donmar Warehouse

Dorset County Museum

East London Dance

Emmanuel College, Cambridge

Event Investments

Gensler

Hall for Cornwall

Haworth Tompkins

Highgate School

Historic Royal Palaces

Hoxton Hall

HUB Group

John Puttick Associates

King's College, Cambridge

Knight Dragon

LendLease (for Wandsworth Borough Council)

Leopard Guernsey Greenwich Ltd

Live Nation

London Borough of Camden

London Buddhist Centre

London Green

London Theatre Company

LW Theatres

Lynette Shanbury

Marlborough College

Maudsley Learning

Mountview Academy of Theatre Arts

Museum of Science and Industry

Muslim Academic Trust	The King's School Canterbury
National Theatre	The Lady Eleanor Holles School
National Trust	The Low Carbon Workspace
New College, Oxford	The Perse School
Penoyre & Prasad	Tring Park School for the Performing Arts
Ravenscourt Studios Ltd	United St Saviour's Charity
Regent's Park Open Air Theatre	University of London
Rhodes Trust	University of Roehampton
Richmond Adult Community College	UP Projects
Royal Botanic Gardens, Kew	Urban Development
Royal Horticultural Society	Vastint
Shakespeare's Globe	Vitsøe
South London and Maudsley NHS Foundation Trust	Waddesdon Estate
St Hilda's College, Oxford	Wadham College, Oxford
St Peter's College, Cardross	White Arkitekter
The British Academy	White Eagle Lodge
The Carnival Village Trust	Willmott Dixon
The Ethical Property Company Plc	Winchester College
The Horniman Museum	Wokingham Borough Council
The Jerwood Foundation	Yorkshire Sculpture Park

# M&E Glossary

AAV	Automatic Air Vent	DHWF/R	Domestic Hot Water, Flow/Return
AAV	Air Admittance Valve	DIR	Display Illuminance Ratio
AC	Access Control	DMX	Digital Multiplex
AC	Access Chamber	DR	Draught Rating
AC	Above Ceiling	DRP	Design Review Panel
ACH	Air Changes per Hour	DSI	Digital Signal Interface
AHU	Air Handling Unit	DSSO	Double Switched Socket Outlet
AP	Access Panel	DSY	Design Summer Year
ASHP	Air Source Heat Pump	DTM	Design Team Meeting
ATEX	Explosive Atmosphere	EC	Electrically Commutated
AV	Audio Visual	ECV	Emergency Control Valve
AVB	Audio Visual Box	ELV	Extra Low Voltage (<50V AC, 120DC)
BCB	Building Control Body	EPBD	Energy Performance of Buildings Directive
BCO	British Council for Offices	EPC	Energy Performance Certificate
BCW	Boosted Cold Water	ErP	Energy Related Products [directive]
BD	Balancing Damper	FA	From Above
BER	Building Emissions Rate	FAI	Fire Alarm Interface
BIM	Building Information Modelling	FAP	Fire Alarm Panel
B(E)MS	Building (Energy) Management System	FB	From Below
BSP	British Standard Pipe	FCU	Fan Coil Unit
BTU	British Thermal Unit	FFL	Finished Floor Level
BWIC	Builders Work in Conjunction	FH	Fire Hydrant
CCHP	Combined Cooling, Heat and Power	FM	Fire Management
CCT	Correlated Colour Temperature	FP	Facilities Panel
CCTV	Closed Circuit TV	FW	Foul Water
CDM	Construction Design and Management	GS	Galvanised Steel
CFD	Computational Fluid Dynamics	GSHP	Ground Source Heat Pump
CFM	Cubic Feet per Minute	HDPE	High Density Polyethylene
CfSH	Code for Sustainable Homes	HIU	Heat Interface Unit
CHP	Combined Heat & Power	HL	High Level
CHW F/R	Chilled Water Flow/Return	HMO	Houses of Multiple Occupancy
CIE	Control and Indicating Equipment	HRU	Heat Recovery Unit
CIE	Commission Internationale d'Eclairage	HUP	Hose Union Point
CL	Cover Level	HV	High Voltage (>1000V)
C/O	Change Over	HX	Heat Exchanger
CoP	Coefficient of Performance	IAP	Intruder Alarm Panel
CPD	Continued Professional Development	ID	Inside Diameter
CPR	Carbon Performance Rating	IFC	Intumescent Fire Collar
CRI	Colour Rendering Index	I&HAS	Intruder and Hold-Up Alarm System
CTF/CTR	Constant Temperature Flow/Return	IL	Invert Level
DA	Daylight Autonomy	IP	Ingress Protection
DALI	Digital Addressable Lighting Interface	IP	Internet Protocol (eg CCTV)
DB	Distribution Board	IV	Isolating Valve
DC	Drain Cock	IZAM	Inter Zonal Air Movement
DD	Degree Days	LED	Light Emitting Diode
DER	Dwelling Emissions Rate	LL	Low Level
DF	Daylight Factor	LOR	Light Output Ratio
DHW	Domestic Hot Water	LPG	Liquefied Petroleum Gas

LSF	Low Smoke and Fume	RP	Rodding Point
LSOH	Low Smoke Zero Halide (cable insulation)	RPZ	Reduced Pressure Zone [Valve]
LST	Low Surface Temperature (radiator)	RWP	Rainwater Pipe
LTHW	Low Temperature Hot Water (heating)	SAP	Standard Assessment Procedure
LV	Low voltage (<1000V)	SBEM	Simplified Building Energy Model
LWPC	Lowest Working Pressure Component	SE	Stage Engineering
LX	Electrics (Stage Lighting)	SFP	Specific Fan Power
MCB	Miniature Circuit Breaker	(S)FX	(Special) Effects
MCCB	Moulded Case Circuit Breaker	SHW	Solar Heated Water
MCP	Manuel Call Point	SL	Stage Lighting
MCP	Mechanical Control Panel	SLB	Stage Lighting Box
MCW	Mains Cold Water	SOR	Statement of Requirements
MD	Motorised Damper	SPN; TPN	Single Phase + Neutral; Three Phase + Neutral
(HDPE/LDPE)	(High/Low) Medium Density	SS	Stub stack
MDPE	Polyethylene	SV	Stop Valve
MEV	Mechanical Extract Ventilation	SVP	Soil Vent Pipe
MH	Manhole	SW	Surface /Storm Water
MLCP	Multi Layer Composite Pipe	SWA	Steel Wire Armour[ed Cable]
MRT	Mean Radiant Temperature	TA	To Above
MSP	Main Switch Panel	TAS	Thermal Analysis Simulation
MVHR	Mechanical Ventilation with Heat Recovery	TB	To Below
NCM	National Calculation Method	TER	Target Emissions Rate
NICEIC	National Inspection Council for Electrical Installation Contracting	TG	Transfer Grill
OD	Outside Diameter	TIU	Thermal Interface Unit
OBD	Opposed Blade Damper	TMD	Thermal Magnetic Device
O & M	Operations and Maintenance	TRY	Test Reference Year
OZ	Occupied Zone	TV	Trickle Vent
PA	Public Address	UCS	User Coordinate System
PB	Polybutylene	UDI	Useful Daylight Index
PHX	Passive Heat Exchanger	UFH	Underfloor Heating
PIR	Passive Infra Red <sup>1</sup>	ULR	Upward Light Ratio
PMV	Predicted Mean Vote	UPS	Uninterruptible Power Supply
PoE	Power over Ethernet	VA	Voice Alarm
PP	Polypropylene	VAV	Variable Air Volume
PPD	Predicted Percentage Dissatisfied	VC	Vitrified Clay
PQQ	Pre Qualification Questionnaire	VCD	Volume Control Damper
PRV	Pressure Reducing Valve	VE	Value Engineering
PTZ	Pan Tilt Zoom	VOC	Volatile Organic Compound
PV	Photovoltaics	VP	Vent Pipe
(U)PVC	(Unplasticised) Poly Vinyl Chloride	VRV/VRF	Variable Refrigerant Volume/Flow
QS	Quantity Surveyor	VSF	Vertical Sky Factor
RC	Reinforced Concrete	VTF/R	Variable Temperature Flow/Return
RCBO	Residual Current Breaker with Overcurrent Protection (MCB+RCD)	WC	Water Conditioner
RCD	Residual Current Device	WP	Waste Pipe
RCP	Reflected Ceiling Plan	XLPE	Cross linked polyethylene
RH	Relative Humidity		

<sup>1</sup>Used generically to mean "presence detector"







# SKELLY & COUCH



[admin@skellyandcouch.com](mailto:admin@skellyandcouch.com)

020 7424 7770

Skelly & Couch Ltd  
6 - 9 Union Wharf  
23 Wenlock Road  
London  
N1 7SB



