



XYPEX[®] *in*

LONDON

London's skyline and streetscape are undergoing considerable change and Xypex is participating on many of the city's most visually dominant, award-winning, and culturally important new and revitalised structures. The architects, engineers and contractors of these developments have avidly endorsed Xypex to waterproof, protect and enhance the durability of their buildings' concrete.

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From the United Kingdom's tallest building to London's most luxurious address and a myriad of fascinating structures in-between, Xypex is there, providing products and services to make concrete better.

It feels good to be playing a major role in the current construction dynamics of Central London. It's also rewarding to be rubbing shoulders with some of the world's finest architects and engineers as they rework the structural form and function of one of western culture's most famous business hubs. We give a nod to the Romans and the remnants of the original Roman Wall that still define the outer boundaries of Central London, and also a nod to the likes of Dickens and Shakespeare who trod the very paths that today's creative teams are revitalising.

THE SHARD

32 London Bridge Street

The Shard, with its church steeple and clad in shards of glass, is the inspiration and design of Renzo Piano, the project's architect. At 95-storeys and standing 309.6 metres (1,016 ft) high, The Shard ('Shard of Glass') is the tallest building in the UK – a top-down construction project that required the largest continuous concrete pour in UK history; three concrete pumps placed 700 truckloads over 36 hours; a total of 5,500 m³. While the extremely thick basement slab did not require waterproofing, Xypex Admix was used to waterproof and protect other areas of the basement as well as the capping beams and lift pits on various floors. Xypex was also used to waterproof the Shangri-La Hotel swimming pool and spa area on the 52nd floor. In all, approximately 7,500 kg of Xypex material was used to treat 1,500 m³ of concrete.





WILLIS BUILDING

51 Lime Street

The Willis Building, at 28-storeys, is the seventh tallest building in London. Located opposite Lloyd's in the heart of London's financial district, it was designed by architects, Foster + Partners and won the 2007 New City Architecture Award. The building, with over 15,000 m³ of concrete used in its construction, was the first large structure that Xypex worked on in Central London. Xypex was selected (instead of the specified membrane) to waterproof and protect the 38-metre deep foundation. Xypex Admix C-1000 NF (6,000 kg) was used for the below-grade slab and lift (elevator) pits and Xypex Concentrate Dry-Pac was installed in all floor-wall joints followed by a slurry coat application of Xypex Concentrate.

Located in the prominent site of Bishopsgate (a Ward named after one of the original eight gates in the 'Roman' London Wall), the current project replaces an earlier plan (2010). The re-design by PLP Architecture (2015) utilises large sections of the previously cast basement while also adding an equally large area that had to be cut out to enable the installation of the new pilings needed to handle the changed loads. The initial Xypex challenge was to waterproof all basement concrete of the original structure. Xypex was selected to replace the membrane specification for the original structure, thereby preventing the likelihood of membrane damage from existing cut and broken concrete. When the design change occurred (from the Pinnacle to 22 Bishopsgate), the fact that Xypex had been previously used instead of a sheet material made the adaptation to the new structure much simpler. An additional benefit was that only one warranty was required to cover the two separate and different basements.

22 BISHOPSGATE

22 Bishopsgate





The Lexicon is a 36-storey tower, and adds to the cluster of new skyscrapers dotting London's new and dynamic skyline. Designed by Skidmore Owings & Merrill (engineers of the world's tallest building in Dubai), it is situated in a prime canal-side location within London's booming east and central neighbourhoods that sport an alluring tapestry of culture and flavours. Because the canal-side location posed a greater risk of significantly higher hydrostatic pressure, Xypex with its proven ability to resist hydrostatic pressure in the extreme, was selected to waterproof and protect the walls, capping beams and podium slabs. Xypex Admix C-Series and Concentrate were both used on the project.

THE LEXICON

261 City Road

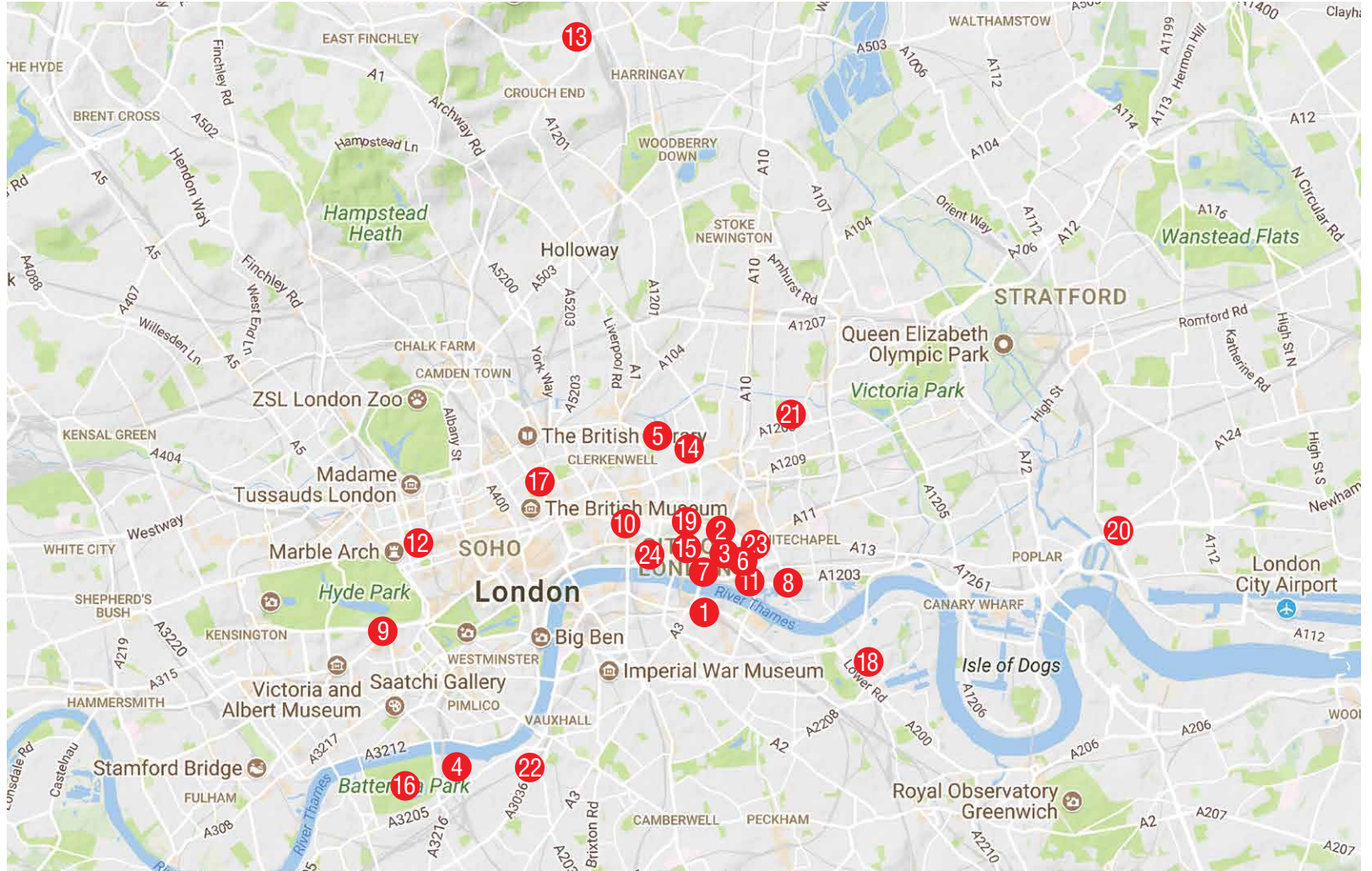


BATTERSEA POWER STATION

188 Kirtling Street

Battersea Power Station Circus West is a mixed-use development intended to create a self-sustaining urban village and vibrant community in its own right. The project takes its name from a coal-fired power station in Nine Elms, Battersea that was fully decommissioned in 1983 and given Grade II building status. Located opposite Chelsea, about one mile from the Houses of Parliament, construction includes 866 apartments, townhouses, offices, shops and leisure areas. The one basement under this large area is the closest the site gets to the River Thames, making the decision to use Xypex Admix to waterproof and protect the slab, walls and capping beam against potentially greater hydrostatic pressure, more critical.

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| 1 The Shard | 5 The Lexicon | 9 One Hyde Park | 13 Smithfield Square | 17 The Zayed Centre | 21 Queen Elizabeth Hospital |
| 2 Willis Building | 6 The Scalpel | 10 60 Holborn Viaduct | 14 Eagle House | 18 Light Project | 22 Sky Garden Nine Elms |
| 3 22 Bishopsgate | 7 24 King William | 11 London Wall | 15 The Ned | 19 Moorgate Exchange | 23 Aldgate Place |
| 4 Battersea Power Station | 8 London Dock | 12 Selfridges | 16 Battersea Park | 20 Rathbone Market | 24 Grange Hotels |





Selfridges opened in 1909 as the ‘dream store’ of Harry Gordon Selfridge. It is the only store to be named ‘The Best Department Store in the World’ three times. Today’s owners, the Galen Weston family, retained David Chipperfield Architects who have revamped the flagship Oxford street store. Xypex Admix was the answer to the concern over new basement elements being added to the old, original concrete.



Smithfield Square is a collection of luxury suites, apartments and live/work apartments by The Berkeley Group, one of London’s largest residential developers. Xypex Admix was specified by the engineer, Powell Tolner & Associates, to waterproof and protect the very large basement – slab, walls and capping beam – that extends under the entire structure.



Eagle House, opened in 2015, is in London’s Tech City and is one of the area’s most recognised landmarks. Primarily a high-end residential development, it also has considerable office space. Xypex Admix and Concentrate were specified by client and engineer to waterproof and protect the basement slab, walls and first floor podium courtyard area.



The Ned Hotel was formerly the Midland Bank Building (whose vaults starred as Fort Knox in the Bond film, Goldfinger). The original design by Sir Edwin “Ned” Lutyens is revised in a new scheme by EPR Architects who have refurbished the building into a 252-bedroom, 5-star hotel complex. Xypex Admix was used to waterproof and protect the basement swimming pool, roof swimming pool, and the new areas cut into the existing basement.



The Scalpel was coined by the Financial Times because of the building's distinctive angular design. The original specification for waterproofing the basement was eventually changed in favour of Xypex. While the Xypex application to the monolithically poured split-slab construction was fairly standard, the precast elements that were cast with Xypex (off-site and transported to the site) had to be carefully installed and jointed with Xypex-treated concrete. A total of 6,000 kg of Xypex Admix C-Series and Concentrate was required.



This project, **24 King William Street EC4**, creates a brand new building from the bones of an existing one. Ben Adams Architects recycled the existing structural frame and applied an innovative stone façade and zinc roof design to form an elegant city landmark. Xypex was selected as the easiest and most effective concrete waterproofing solution for this design-and-build construction. Xypex Admix was used to waterproof and protect a new section of the basement and integrate it with existing concrete.



London Dock, on the site of the original London Docks (constructed between 1799 and 1915) is a redevelopment of the News International site (Robert Murdoch's newspaper empire) and now an exciting new destination in the heart of London, featuring the finest selection of high quality new homes. Xypex successfully waterproofed and protected the entire basement of the first phase of this five-phase project using 16,000 kg of Xypex Admix.



Sky Gardens Nine Elms (formerly Vauxhall Sky Gardens) is a two tower (120 m) residential project – part of the regeneration of the Nine Elms district of London. The scheme is designed by architects CareyJones Chapmantolcher and developed by Fraser Property Development. Engineers, The Robert Bird Group, specified Xypex Admix (7,000 kg to date) to waterproof and protect the basement that runs under both towers, including the slab, capping beam and some of the suspended podium slab.



Battersea Park East is a mixed-use development and part of the Taylor Wimpey and Addition Land's proposal to revitalise the area between Queenstown Road and Battersea Park Stations. Xypex Admix was required to waterproof and protect the basement under a large area of the site, including the slab, walls and capping beam. Battersea Park, opened in 1858, is a 200-acre marshland reclaimed from the River Thames.



Great Ormond Street Hospital (GOSH) opened in 1852. Through the patronage of Queen Victoria and income generated from its ownership of the Peter Pan copyright, it has evolved into a hospital recognised for firsts in surgery and research into rare diseases in children. **The Zayed Centre** is for scientists from the UCL Institute of Child Health and doctors from GOSH, to work together in their mutual pursuit of better ways to treat children with rare diseases. Xypex Admix was selected to waterproof and protect the basement slab and capping beam in the new Centre.



Project Light is a major mixed-use development adjacent to Canada Water in Southwark and is fundamental to Southwark council's plan to regenerate the area with a new town centre. Xypex was retained to address water permeability concerns in the building's below-grade area. The basement was already cast. However, a separately cast 150 mm topping of Xypex-Admix-concrete was applied to waterproof and protect the slab, capping beam and sheet-piled walls.



Aldgate Place in London's fashionable East End is a two-phase project comprising six buildings ranging from 6 - 25 storeys, including contemporary apartments and a four-star hotel. Xypex was the preferred choice for this project because of Xypex Crystalline Technology and its capability in handling extreme hydrostatic pressure – a primary concern in this structure's construction. Xypex was used to waterproof and protect the new basement slab, walls and pile capping beam.



One Hyde Park, designed by Rogers Stirk Harbour + Partners, is in the heart of exclusive Knightsbridge and tagged as “the most luxurious address in London”. Contractor Laing O’Rourke selected the Xypex system as a one-stop concrete waterproofing and protection solution for the three-level basement slab and wall areas, attenuation tanks, podium slab and penthouse roofs. Xypex Admix was used for the traditionally cast and post-tensioned concrete and Xypex Concentrate and Patch’n Plug as a remedial solution for areas adjacent to the existing structure.



London Wall Place, designed by Make Architects, reinstates the site’s historic grids with special attention to the remains of the 12th century St. Alphage church and a section of the original (Roman) London Wall. Although Xypex Admix was the primary waterproofing solution for the entire basement, a two-system approach was required for certain areas. The dual system (Xypex plus a membrane) resulted in little to no remediation required of the existing concrete behind the new liner walls.



60 Holborn Viaduct is located in London’s West End, with Amazon its prime occupant. The nine-storey curved glass and steel structure was designed by Kohn Pedersen Fox. The basement concrete box extends over the full footprint of the site. Xypex Admix replaced the specified membrane in part because of Xypex’s natural affinity with concrete mixes that have a high blended cement content. Xypex was installed in the entire basement slab, walls and capping beam as well as the lower sections of the slip-formed core.



Xypex has provided concrete waterproofing and protection for the basements, saunas and pool facilities of all three luxury **Grange Hotels** in London. While thick upstands of concrete (more than a metre thick) required a Xypex Concentrate Coating, Xypex Admix was otherwise used throughout. The functional benefits of having both Xypex products facilitated more efficient cost control and tighter project scheduling.



Moorgate Exchange, designed by HKR Architects, is a 32,000 m² building in London, featuring green-terraced roof garden tiers and strategic views of St. Paul's Cathedral. This Skanska project is an excellent example of how Xypex Admix simplifies construction by simultaneously concreting and waterproofing, realising cost savings in the process. The entire basement is cast using Xypex Admix with Xypex Concentrate used for sealing joints.



The redevelopment of **Queen Elizabeth Children's Hospital**, closed since 1996, will provide 188 new homes in Tower Hamlets. HCA Design Architects and Rydon, the developer and contractor, while retaining and refurbishing the original historic façade on Hackney Road, also set a record for the largest concrete pour (450 m³) in the company's history. A new basement 'footprint' linked to the existing slab was cast against high hydrostatic pressure, requiring Xypex Crystalline Technology to waterproof and protect it.



Rathbone Market, a three-phase project, is a major urban regeneration project in the London Borough of Newham. Designed by CZWG Architects, the mixed-use scheme is intended to revitalise Canning Town and Custom House. Xypex Admix was used to waterproof and protect the basement slab, walls and capping beam.

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Xypex Chemical Corporation

13731 Mayfield Place, Richmond, BC, Canada V6V 2G9 Tel: 604.273.5265 Email: enquiry@xypex.com Web: www.xypex.com

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