

= Vauxhall Bridge =

Vauxhall Bridge is a Grade II \* listed steel and granite deck arch bridge in central London . It crosses the River Thames in a south ? east north ? west direction between Vauxhall on the south bank and Pimlico on the north bank . Opened in 1906 , it replaced an earlier bridge , originally known as Regent Bridge but later renamed Vauxhall Bridge , built between 1809 and 1816 as part of a scheme for redeveloping the south bank of the Thames . The original bridge was itself built on the site of a former ferry .

The building of both bridges was problematic , with both the first and second bridges requiring several redesigns from multiple architects . The original bridge , the first iron bridge over the Thames , was built by a private company and operated as a toll bridge before being taken into public ownership in 1879 . The second bridge , which took eight years to build , was the first in London to carry trams and later one of the first two roads in London to have a bus lane .

In 1963 it was proposed to replace the bridge with a modern development containing seven floors of shops , office space , hotel rooms and leisure facilities supported above the river , but the plans were abandoned because of costs . With the exception of alterations to the road layout and the balustrade , the design and appearance of the current bridge has remained almost unchanged since 1907 . The bridge today is an important part of London 's road system and carries the A202 road across the Thames .

= = Background = =

In the early 13th century , Anglo @-@ Norman mercenary Falkes de Breauté built a manor house in the then empty marshlands of South Lambeth , across the River Thames from Westminster . In 1223 ? 24 , de Breauté and others revolted against Henry III ; following a failed attempt to seize the Tower of London , de Breauté 's lands in England were forfeited and he was forced into exile in France and later Rome . The lands surrounding his Lambeth manor house continued to be known as Falkes ' Hall , later Vauxhall .

With the exception of housing around the New Spring Gardens ( later Vauxhall Gardens ) pleasure park , opened in around 1661 , the land at Vauxhall remained sparsely populated into the 19th century , with the nearest fixed river crossings being the bridges at Westminster , 1 mile ( 1 @.@ 6 km ) downstream , and Battersea , 2 miles ( 3 @.@ 2 km ) upstream . In 1806 a scheme was proposed by Ralph Dodd to open the south bank of the Thames for development , by building a new major road from Hyde Park Corner to Kennington and Greenwich , crossing the river upstream of the existing Westminster Bridge . The proprietors of Battersea Bridge , concerned about a potential loss of customers , petitioned Parliament against the scheme , stating that " [ Dodd ] is a well known adventurer and Speculist , and the projector of numerous undertakings upon a large scale most if not all of which have failed " , and the bill was abandoned .

In 1809 a new bill was presented to Parliament , and the proprietors of Battersea Bridge agreed to allow it to pass and to accept compensation . The Bill incorporated the Vauxhall Bridge Company , allowing it to raise up to £ 300 @,@ 000 ( about £ 19 @.@ 6 million in 2016 ) by means of mortgages or the sale of shares , and to keep all profits from any tolls raised . From these profits , the Vauxhall Bridge Company was obliged to compensate the proprietors of Battersea Bridge for any drop in revenue caused by the new bridge .

= = Old Vauxhall Bridge = =

Dodd submitted a scheme for a bridge at Vauxhall of 13 arches . However , soon after the 1809 Act was passed , he was dismissed by the Vauxhall Bridge Company and his design was abandoned . John Rennie was commissioned to design and build the new bridge , and a stone bridge of seven arches was approved . On 9 May 1811 , Lord Dundas laid the foundation stone of the bridge on the northern bank .

The Vauxhall Bridge Company ran into financial difficulties and was unable to raise more than the £

300 @, @ 000 stipulated in the 1809 Act , and a new Act was passed in 1812 permitting the Company to build a cheaper iron bridge . Rennie submitted a new design for an iron bridge of eleven spans , costing far less than the original stone design . Rennie 's design was rejected , and instead construction began on a nine arch iron bridge designed by Samuel Bentham . Concerns were raised about the construction of the piers , and engineer James Walker was appointed to inspect the work . Walker 's report led to the design being abandoned for the second time , and Walker himself was appointed to design and build a bridge of nine 78 @-@ foot ( 24 m ) cast @-@ iron arches with stone piers , the first iron bridge to be built across the Thames .

On 4 June 1816 , over five years after construction began , the bridge opened , initially named Regent Bridge after George , Prince Regent , but shortly afterwards renamed Vauxhall Bridge . The developers failed to pay the agreed compensation to the owners of Battersea Bridge and were taken to court ; after a legal dispute lasting five years a judgement was made in favour of Battersea Bridge , with Vauxhall Bridge being obliged to pay £ 8 @, @ 234 ( about £ 633 @, @ 000 in 2016 ) compensation . As well as the compensation awarded by the courts to Battersea Bridge in 1821 , the 1809 Act also obliged the Vauxhall Bridge Company to pay compensation to the operators of Huntley Ferry , the Sunday ferry service to Vauxhall Gardens , with the level to be decided by " a jury of 24 honest , sufficient and indifferent men " . The bridge cost £ 175 @, @ 000 ( about £ 12 @. @ 1 million in 2016 ) to build ; with the costs of approach roads and compensation payments , the total cost came to £ 297 @, @ 000 ( about £ 20 @. @ 5 million in 2016 ) .

= = = Usage = = =

In anticipation of the areas surrounding the bridge becoming prosperous suburbs , tolls were set at relatively high rates on a sliding scale , ranging from a penny for pedestrians to 2s 6d for vehicles drawn by six horses . Exemptions were granted for mail coaches , soldiers on duty and parliamentary candidates during election campaigns . However , the area around the bridge failed to develop as expected . In 1815 John Doulton built the Doulton & Watts ( later Royal Doulton ) stoneware factory at Vauxhall , and consequently instead of the wealthy residents anticipated by the company , the area began to fill with narrow streets of working class tenements to house the factory 's workers . Meanwhile , the large Millbank Penitentiary was built near the northern end of the bridge , discouraging housing development . Consequently , toll revenues were initially lower than expected , and the dividends paid to investors were low .

Usage rose considerably in 1838 when the terminus of the London and South Western Railway was built at nearby Nine Elms . Nine Elms station proved inconvenient and unpopular with travellers , and in 1848 a new railway terminus was built 1 1 ? 2 miles ( 2 @. @ 4 km ) closer to central London , at Waterloo Bridge station ( renamed " Waterloo Station " in 1886 ) , and the terminus at Nine Elms was abandoned .

With the closure of the rail terminus , Vauxhall Bridge 's main source of revenue was visitors to the Vauxhall Gardens pleasure park . In addition to people visiting the Gardens themselves , Vauxhall Gardens were used as a launch point for hot air balloon flights , and large crowds would gather on the bridge and surrounding streets to watch the flights . A large crowd also assembled on the bridge in September 1844 to watch Mister Barry , a clown from Astley 's Amphitheatre , sail from Vauxhall Bridge to Westminster Bridge in a washtub towed by geese .

= = = Public ownership = = =

Despite early setbacks and the construction nearby in the 19th century of three competing bridges ( Lambeth Bridge , Chelsea Bridge and Albert Bridge ) , the rapid urban growth of London made Vauxhall Bridge very profitable . The annual income from tolls rose from £ 4 @, @ 977 ( about £ 329 @, @ 000 in 2016 ) in its first full year of operation , to £ 62 @, @ 392 ( about £ 5 @, @ 297 @, @ 000 in 2016 ) in 1877 . In 1877 the Metropolis Toll Bridges Act was passed , allowing the Metropolitan Board of Works ( MBW ) to buy all London bridges between Hammersmith Bridge and Waterloo Bridge and free them from tolls .

In 1879 the bridge was bought by the MBW for £ 255 @, @ 000 ( about £ 23 @, @ 380 @, @ 000 in 2016 ) and tolls on the bridge were lifted . Inspections of the bridge by the MBW following the purchase found that the two central piers were badly eroded , exposing the timber cradles on which the piers rested . Large quantities of cement in bags were laid around the wooden cradles as an emergency measure ; however , the cement bags themselves soon washed away . The piers were removed , replaced by a single large central arch . By this time the bridge was in very poor condition , and in 1895 the London County Council ( LCC ) , which had taken over from the MBW in 1889 , sought and gained Parliamentary approval to replace the bridge . Permission was granted by Parliament to raise the projected replacement costs of £ 484 @, @ 000 ( about £ 50 @, @ 420 @, @ 000 in 2016 ) from rates across the whole of London rather than only local residents , as a new bridge was considered to be of benefit to the whole of London .

In August 1898 a temporary wooden bridge was moved into place alongside the existing bridge , and the demolition of the old bridge began .

= = New Vauxhall Bridge = =

Sir Alexander Binnie , the resident engineer of the London County Council ( LCC ) , submitted a design for a steel bridge , which proved unpopular . At the request of the LCC , Binnie submitted a new design for a bridge of five spans , to be built in concrete and faced with granite .

Work on Binnie 's design began , but was beset by problems . Leading architects condemned the design , with Arthur Beresford Pite describing it as " a would @-@ be Gothic architectural form of great vulgarity and stupid want of meaning " , and T G Jackson describing the bridge designs as a sign of " the utter apparent indifference of those in authority to the matter of art " . Plans to build large stone abutments had to be suspended when it was found that the southern abutment would block the River Effra , which by this time had been diverted underground to serve as a storm relief sewer and which flowed into the Thames at this point . The Effra had to be rerouted to join the Thames to the north of the bridge . After the construction of the foundations and piers it was then discovered that the clay of the riverbed at this point would not be able to support the weight of a concrete bridge . With the granite piers already in place , it was decided to build a steel superstructure onto the existing piers , and a superstructure 809 feet ( 247 m ) long and 80 feet ( 24 m ) wide was designed by Binnie and Maurice Fitzmaurice and built by LCC engineers at a cost of £ 437 @, @ 000 ( about £ 42 @, @ 390 @, @ 000 in 2016 ) .

The new bridge was eventually opened on 26 May 1906 , five years behind schedule , in a ceremony presided over by the Prince of Wales and Evan Spicer , Chairman of the LCC . Charles Wall , who had won the contract to build the superstructure of the new bridge , paid the LCC £ 50 for the temporary wooden bridge , comprising 40 @, @ 000 cubic feet ( 1 @, @ 100 m3 ) of timber and 580 tons of scrap metal .

= = = Sculpture = = =

The new bridge was built to a starkly functional design , and many influential architects had complained about the lack of consultation from any architects during the design process by the engineers designing the new bridge . In 1903 , during the construction of the bridge , the LCC consulted with architect William Edward Riley regarding possible decorative elements that could be added to the bridge . Riley proposed erecting two 60 @-@ foot ( 18 m ) pylons topped with statues at one end of the bridge , and adding decorative sculpture to the bridge piers . The pylons were rejected on grounds of cost , but following further consultation with leading architect Richard Norman Shaw it was decided to erect monumental bronze statues above the piers , and Alfred Drury , George Frampton and Frederick Pomeroy were appointed to design appropriate statues .

Frampton resigned from the project through pressure of work , and Drury and Pomeroy carried out the project , each contributing four monumental statues , which were installed in late 1907 . On the upstream piers are Pomeroy 's Agriculture , Architecture , Engineering and Pottery , whilst on the downstream piers are Drury 's Science , Fine Arts , Local Government and Education . Each statue

weighs approximately two tons . Despite their size , the statues are little @-@ noticed by users of the bridge as they are not visible from the bridge itself , but only from the river banks or from passing shipping .

= = = Usage = = =

The new bridge soon became a major transport artery and today carries the A202 across the Thames . Originally built with tram tracks , New Vauxhall Bridge was the first in central London to carry trams . Initially it carried horse @-@ drawn trams , but shortly after the bridge 's opening it was converted to carry the electric trams of London County Council Tramways ; it continued to carry trams until the ending of tram services in 1951 . In 1968 Vauxhall Bridge and Park Lane became the first roads in London to have bus lanes ; during weekday evening rush hours , the central lane of the bridge was reserved for southbound buses only .

= = Millbank Bridge = =

During the Second World War the government was concerned that Axis bombers would target the bridge , and a temporary bridge known as Millbank Bridge was built parallel to Vauxhall Bridge , 200 yards ( 180 m ) downstream . Millbank Bridge was built of steel girders supported by wooden stakes ; however , despite its flimsy appearance it was a sturdy structure , capable of supporting tanks and other heavy military equipment . In the event , Vauxhall Bridge survived the war undamaged , and in 1948 Millbank Bridge was dismantled . Its girders were shipped to Northern Rhodesia and used to span a tributary of the Zambezi .

= = The Crystal Span = =

In 1963 the Glass Age Development Committee commissioned a design for a replacement bridge at Vauxhall , inspired by the design of the Crystal Palace , to be called the Crystal Span . The Crystal Span was to have been a seven @-@ story building supported by two piers in the river , overhanging the river banks at either end . The structure itself would have been enclosed in an air conditioned glass shell . The lowest floor would have contained two three @-@ lane carriageways for vehicles , with a layer of shops and a skating rink in the centre of the upper floors . The southern end of the upper floors was to house a luxury hotel , whilst the northern end was to house the modern art collection of the nearby Tate Gallery , which at this time was suffering from a severe shortage of display space . The roof was to have housed a series of roof gardens , observation platforms and courtyards , surrounding a large open @-@ air theatre . The entire structure would have been 970 feet ( 300 m ) long and 127 feet ( 39 m ) wide . Despite much public interest in the proposals , the London County Council was reluctant to pay the estimated £ 7 million ( £ 132 million in 2016 ) construction costs , and the scheme was abandoned .

= = Recent history = =

In 1993 , a remnant of the earliest known bridge @-@ like structure in London was discovered alongside Vauxhall Bridge , when shifting currents washed away a layer of silt which had covered it . Dating to between 1550 BC and 300 BC , it consists of two rows of wooden posts , which it is believed would originally have carried a deck of some kind . It is believed that it did not cross the whole river , but instead connected the south bank to an island , possibly used for burial of the dead . As no mention of this or similar structures in the area is made in Julius Caesar 's account of crossing the Thames nor by any other Roman author , it is presumed that the structure had been dismantled or destroyed prior to Caesar 's expedition to Britain in 55 BC . The posts are still visible at extreme low tides .

Following the closure of a number of the area 's industries , in the 1970s and 1980s the land at the southern end of Vauxhall Bridge remained empty , following the failures of multiple redevelopment

schemes . The most notable came in 1979 when Keith Wickenden MP , owner of the land at the immediate southern end of the bridge , proposed a large @-@ scale redevelopment of the site . The development was to contain 300 @,@ 000 square feet ( 28 @,@ 000 m2 ) of office space , 100 luxury flats and a gallery to house the Tate Gallery 's modern art collection . The offices were to be housed in a 500 @-@ foot ( 150 m ) tower of green glass , which was nicknamed the " Green Giant " and met with much opposition . The then Secretary of State for the Environment , Michael Heseltine , refused permission for the development and the site remained empty .

In 1988 Regalian Properties purchased the site , and appointed Terry Farrell as architect . Farrell designed a self @-@ contained community of shops , housing , offices and public spaces for the site . Regalian disliked the proposals and requested Farrell design a single large office block . Despite containing 50 % more office space than the rejected Green Giant proposal , the design was accepted . The government then bought the site and design as a future headquarters for the Secret Intelligence Service , and the design was accordingly modified to increase security . In 1995 the SIS Building was opened on the site , and today dominates other buildings in the vicinity of the bridge .

In 2004 the Vauxhall Cross area at the southern end of the bridge was redeveloped as a major transport interchange , combining a large bus station with the existing National Rail and London Underground stations at Vauxhall . Immediately to the east of the southern end of the bridge , a slipway provides access for amphibious buses between the road and river .

The only significant alteration to the structure of the bridge itself since the addition of the sculptures in 1907 came in 1973 , when the Greater London Council ( GLC ) decided to add an extra traffic lane by reducing the width of the pavements . To counter the increased load of extra traffic , the council announced the replacement of the cast @-@ iron balustrades with low box @-@ girder structures . Despite formal objections from both Lambeth and Westminster Councils , the GLC ignored the objections . In 2015 , the extra lane of motor traffic was removed in favour of a kerb @-@ protected two @-@ way cycle track , on the north @-@ east side of the bridge .

The bridge was declared a Grade II \* listed structure in 2008 , providing protection to preserve its character from alteration .