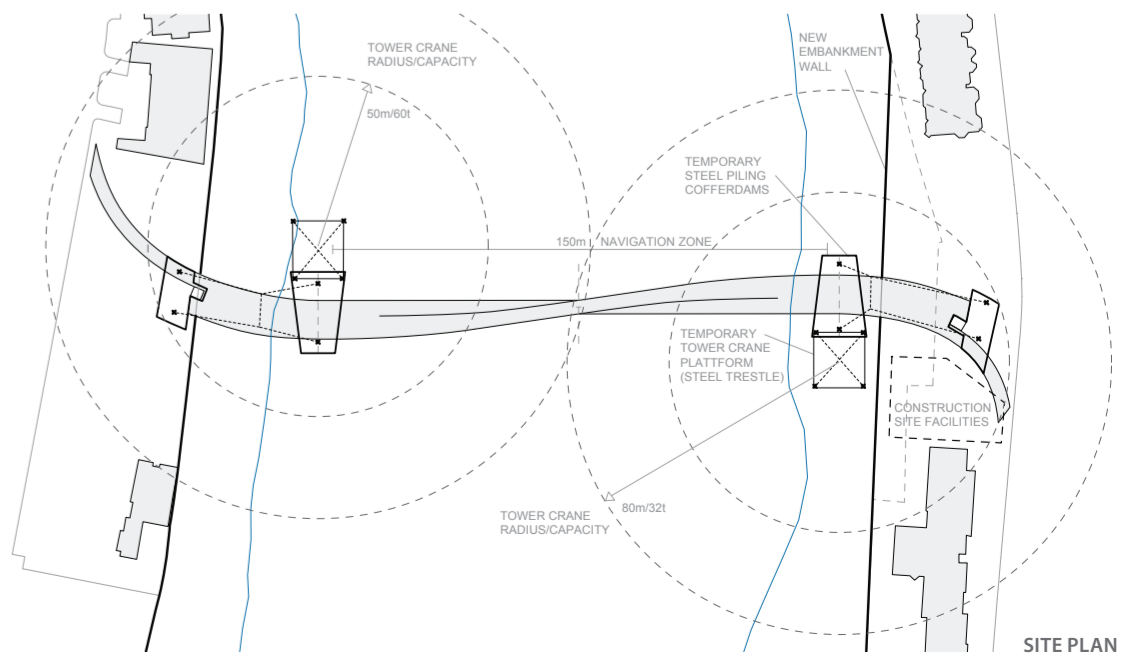
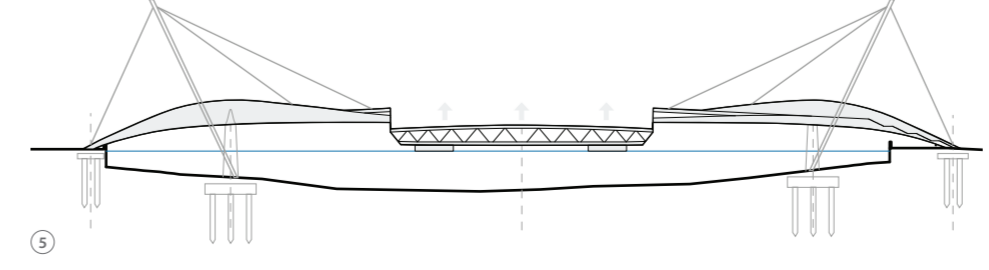
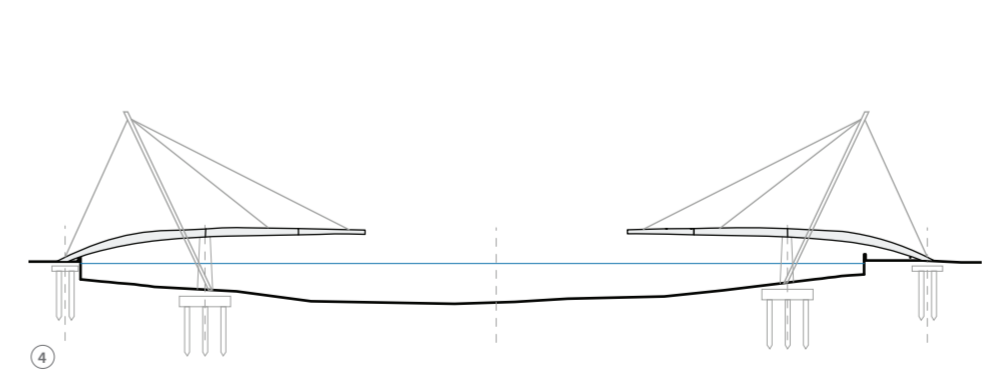
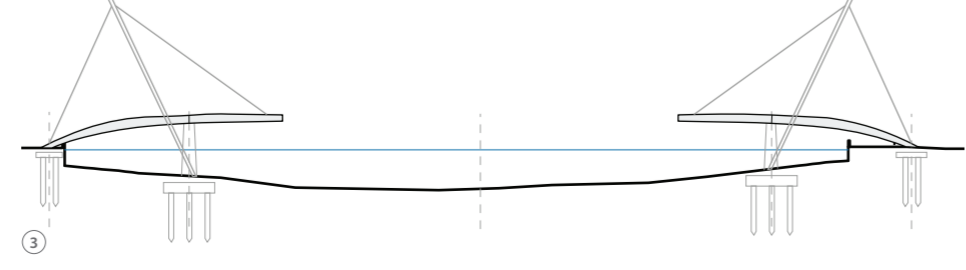
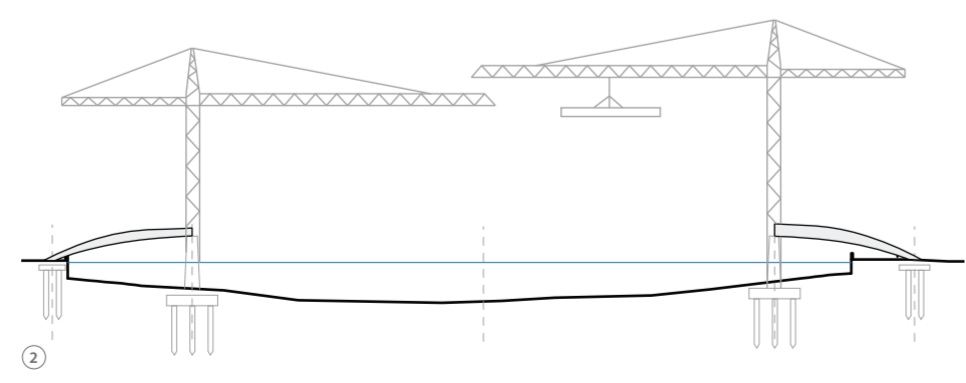
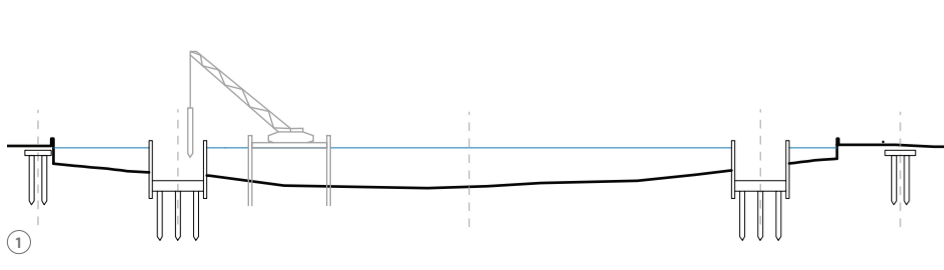


**CONSTRUCTION SEQUENCE:**

1. At each final pier location: Install cofferdams using sheet piling
2. Build pier foundations - r.c. foundation caps on bored r.c. piles (approx. 7 x 3 large diam piles per pier)
3. temporary borings to the E of N pier / to the W of S pier, respectively, for
4. temporary steel trestle platforms for erection cranes (60t)
5. replace / reinforce existing embankment wall on north side (Pimlico Gardens); build new embankment wall on south side, including
6. bored pile anchorage for temporary masts and permanent bridge end supports on both riverbanks
7. build r.c. bridge piers
8. erect skew trestle masts on pier foundations with temporary stays to embankment anchorage points
9. install steel hollow box exterior spans in (5 - 6) longitudinal segments, delivery by barge, welding on site
10. install steel hollow box interior spans in longitudinal and transverse segments, cantilevered from the pier stays support the segments from temporary masts, welding on site
11. midsection truss (approx. 1/3) of span delivered by barge and hoisted from the cantilevered ends of the hollow box beam

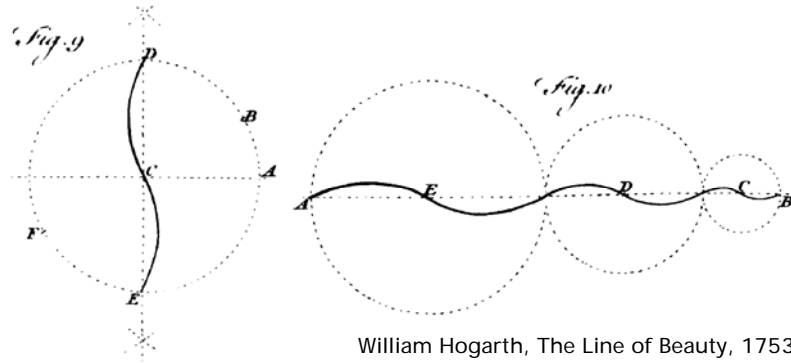








## LINES OF MOVEMENT

William Hogarth, *The Line of Beauty*, 1753

A pedestrian crossing the Thames each day on her way to work from her flat on the south side of the river climbs the stairs from the newly designed urban square at Nine Elms – some days she prefers to take the glass elevator from the square – up to the bridge deck level, where she finds herself on a wide, spacious surface, to the left is a clearly marked cycleway. She walks swiftly to the north side of the river, rising gradually above the cycleway towards the highest part of the bridge at the middle of the span, where she enjoys the uninterrupted views in all directions, but quickly passes visitors who have stopped at the railing to take some photographs. Gradually descending again, the stairs at the end of the bridge bring her into Pimlico Gardens. The gardens, with their double row of plane trees and the marble statue in the centre, are the initial segment of the long rectangular green of St. George's Square, which she passes through on the way to Pimlico Tube Station.

Visitors to the area have taken their time, stopping at the top of the stairs to have a seat on the long bench curving along one side of the bridge. Passing cyclists occasionally disrupt their view of the imposing Battersea Power Station and all of the modern new buildings along the south side of the river, but after a short walk further along the pedestrian deck, they stop at the highest part of the bridge to take it all in. The "upper deck" is 3,5 metres wide – plenty of space to stop at the railing and photograph the views all around without blocking the path of people rushing by on their way to work.

A cyclist commutes on CS8 along Grosvenor Road going south to Nine Elms. He connects to the cycling lane for the new bridge at the edge of Pimlico Gardens, curving gradually off to the left and up onto the bridge. Near the top of the ramp, he notices pedestrians walking alongside his lane, but the lanes are clearly marked. He continues at the same elevation, gliding about 9 metres above mean water level. He passes alongside other cyclists on the 4,5m-wide cycle path, passing through the bridge structure, under pedestrians stopping at the rail and taking photographs from the deck above him. The cycleway ramps in a continuous curve to the right down to Nine Elms Parkway, where he can connect directly to the east, or take the toucan crossing right ahead to go west or south.

Careful consideration of the distinct needs of pedestrians and cyclists crossing the Thames, in combination with the stringent navigation requirements and the structural and construction requirements for the long span are the basis of this proposal. The resulting bridge structure might be described as "organic" in form because of its curved and flowing shape. It is indeed intrinsically "organic", because it has been derived by integrating traffic flow and structural elements. Instead of an additive sum parts with different functions, the lightweight hollow steel structure is a multi-purpose element: It is shaped to form ramps, walkways and cycle ways on the bridge, extended vertically on one side to form a curved "fin" which stiffens the structure above the supports, and gradually split into two decks at mid-span, still connected by diagonal struts to form a single continuous structure. A result of striving for the right geometry, oscillating between requirements and aesthetics, the design of the bridge follows the ideals of the visual pleasure of a sophisticated line and of the materialisation of dynamic movement.

In the end, the shape of the bridge might resemble a bird's wings or a wave, but that wasn't intentional: it is a result of requirements of function, longevity, flow of forces and flow of traffic,

... and of joy taken in a dynamic form.