Integrating cycle and pedestrian traffic

The plan concept is to create an arch type suspension bridge combining elegance and structural integrity with the highest standards of accessibility and functionality. Seeking a delicate, lightweight solution, the structure is supported by a series of cables extending down from an arch that spans the width of the bridge. This structural solution creates a new multifunctional, more forward-looking infrastructure in which cycling and pedestrian paths will be provided separately, increasing the sense of safety, user confidence, accessibility and comfort. The bridge is designed to be straight with no obstacles in between allowing for cycle and pedestrian traffic to flow unimpeded. The pedestrian path is 2x2 m wide while the cycling path is 4 metres wide, which is separated from the pedestrian lane for extra comfort whilst creating a safer atmosphere for pedestrians and people with impaired vision. Spacious viewing decks along each side of the bridge complement the paths. These wave-like decks with seating areas offer opportunities for relaxation, leisure and enjoying amazing views across London for everyone. The surfaces are made of durable and slip resistant materials for extra security and comfort. For a more inclusive approach polished timber detailing to tactile surfaces such as seating and railing will be added. Floor lighting will add an aesthetic quality whilst also functioning as traffic and direction guides at night.

Place making across the bridge and at its landing points

The bridge, designed to the highest quality standards, is a light and easy-maintenance structure that is well integrated within its urban setting. A sense of place is achieved through the many innovative visual and structural details and interventions around the site. Moreover, the design takes its wider context into consideration in order to enhance the public realm on both sides of the river. Improvements to the green park areas include additional plants, new seating areas, ramps for easy access and specifically designed multifunctional step-type grass squares. The structure of the landing point, which is symmetrical and references the nearby iconic Dolphin Square apartment block, blends perfectly with the surrounding architecture. The landing point stairs organically mutate into the bridge walls, which in turn have integrated prostrating wave-like boxes for green plants, thus creating a strong visual language and positively enhancing the surrounding area.

The design of this inspiring, elegant and functional bridge also incorporates organic wave-like balconies suspended by a unique cable alongside each side of the bridge generating an intriguing sense of movement flow along the journey. These viewing balconies open up new opportunities to enjoy historic landmarks such as Battersea Power Station, Dolphin Court and Pimlico's 19th century townscape. The balconies also add a playful twist when seen form the shores, especially at night when they are lit. It would be a refreshing addition to London's infrastructure whilst enhancing the public realm in a positive and sustainable way. It is visually striking without being obtrusive or too imposing against London's skyline.

Height across the river and the inherent access issues

The structural typology, an arch type suspension bridge, proves highly effective in ensuring that river traffic is unimpeded and that the Port of London Authority's requirements are met. The horizontal clearance between piers is 152m and the bridge span's minimum height is 10.96m Above Ordinance Datum. The bridge's deck slope is created at 1:21, being fully inclusive and easily accessible for wheelchair users and parents with prams, among other users. Meeting all the dimensional constraints for enabling successful fluvial traffic the bridge deck results in 6m height above the adjacent ground level. Access is provided with 6m wide linear staircases on both bank sides, with flat mid-level landing points in between the steps and two wheeling ramps for cyclists on each side running the full length of the stairs. These are supplemented by two large capacity lifts on both sides of the bridge ensuring full accessibility. The landing point risers are 15cm in height and 30cm in width allowing a very comfortable use.

Phased construction to ensure that river traffic can continue

Construction will utilize steel structures, lightweight aluminum outer panel skins for a sleek look that can be elegantly lit up at night. The materials, arch type typology, design and construction methodology of the bridge ensure that disruption to the river traffic is kept to a minimum during its construction. The superstructure comprises of a single steel arch that spans across the bridge deck starting from the north shoreline of the river, crossing it in the middle and ending on the south bank with the deck suspended by cables on both sides.

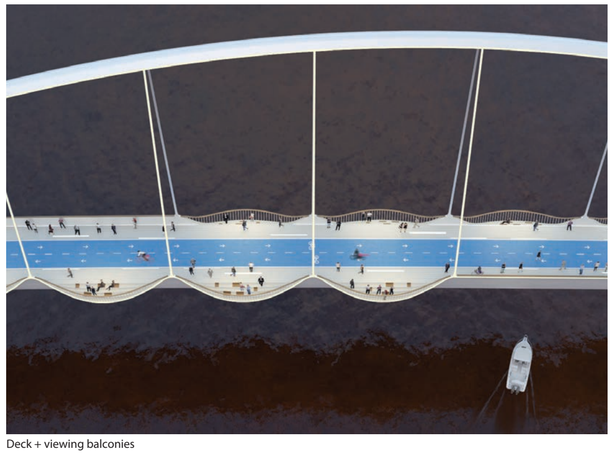
The construction starts with the first arch and deck sections being lifted into place by crane, after which temporary masts and backstays are installed. The second and third sections are lifted into place by cranes positioned on platforms on both banks of the river. The central arch section is delivered by barge and strand jacked from the arch. Temporarily masts are removed and deck sections are delivered by barge and strand jacked from the arch and hanged onto the cables that are organically transformed into the deck section.

Landing point - North bank

Pedestrian + Cycling lanes

Deck and tension cables + viewing balconies

South bank side + green zone



Deck + viewing balconies

North bank side + green zone

View from the bottom