Wembley arch reaches final position

On 24 June, the arch of the new Wembley Stadium reached its final position. Soaring 133m above the World Stadium Team designed stadium, the arch provides an instantly recognisable addition to London’s skyline and is an iconic replacement for the twin towers of the original 1924 stadium. When it is illuminated during matches, the archs glow will be visible across the whole city.

The arch took six weeks to raise using five turning struts that assisted in lifting the 1700 ton arch off the ground and rotating it to the final inclined position. The arch will provide structural support for the stadiums partly retractable main roof, which opens to allow extra natural light and air onto the pitch. The retractable panels can be closed within fifteen minutes to shelter fans from the weather, and ensure that sporting and musical events are played-out under optimal conditions.

Once the lifting mechanisms and turning struts are removed, work can begin on completing the stadiums east and west stair and elevator cores, the seating bowl terracing, and the 1km long prismatic perimeter truss (PPT). The PPT structure distributes roof loads onto the seating bowl and encircles the entire seating bowl, acting as a ring structure to tie the outer-edge of the upper-tier together.

The design for the new stadium will provide future generations of sports and music fans with a venue that is equipped for the twenty-first century. At almost four times the height
of the original, covering twice the area, and with 90,000 seats, the new Wembley Stadium will be the largest covered football stadium in the world.

The World Stadium Team is made up of Foster and Partners, HOK Architects, and HOK S+V+E.

**Arch facts and figures**

- Arch structure supports approximately 60% of total main roof weight.
- Arch has span of 315m making it the largest clear span stadium roof structure in World. For this span arch form uses approximately 2/3 of amount of steel compared to conventional truss girder.
- Arch rises 133m above pitch level and leans to north clear from moving panels.
- Arch will be visible from Central London and will become iconic symbol for new Wembley Stadium.