

# LANDMARKS

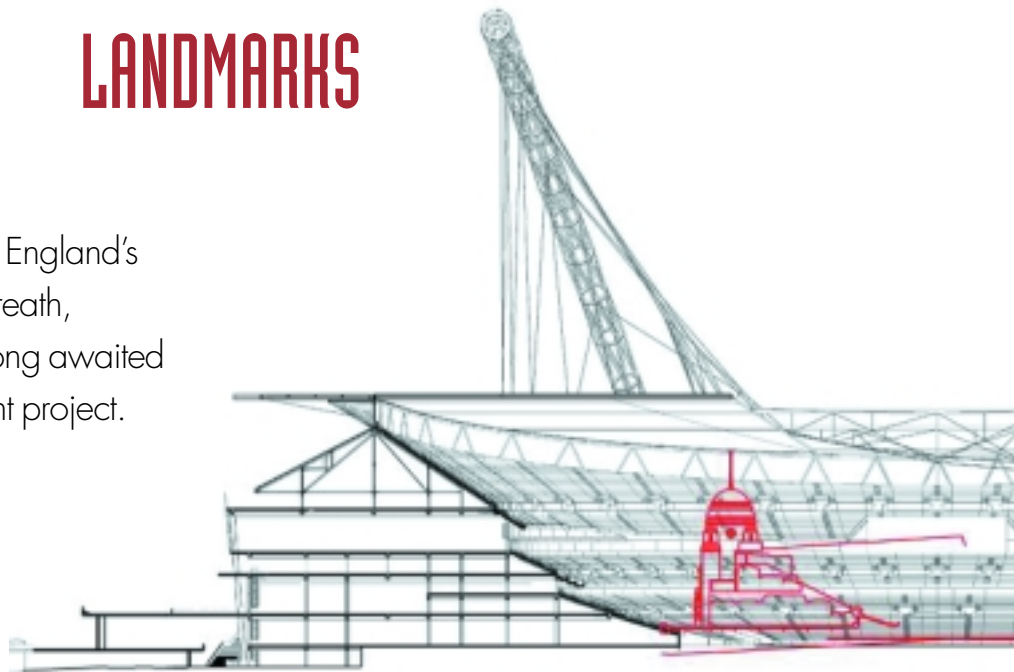
As the twin towers at the centre of England's football heritage draw their last breath, *Cranes & Access* reports on the long awaited Wembley Stadium redevelopment project.

**I**t will take 4 years to complete with basic building costs estimated at around £352 million and a total project cost of approximately £757 million – making it the most expensive sports stadium in the world and, one of the biggest. On completion, the new 90,000 capacity stadium will measure approximately 305 metres from east to west and 300 metres from north to south compared to the old 275 metres by 200 metres structure.

The contract to go ahead with the stadium redevelopment was signed by the partners involved in the project on 26 September this year. The agreement follows years of political arguments and financial discrepancies and the securing of a loan from German bank WestLB in excess of £400 million.

Looking at the plans, there can be no doubt that the massive structure will provide a truly awesome site on London's city skyline, but there is still a long way to go before Mr Beckham bangs home his first free-kick on the newly laid turf.

Looking at the present site, the



## Come on

Wembley that we are all familiar with still clings to its original foundations, but its grip is slowly weakening. There are currently more holes on site than you would find at a St Andrews golf championship as demolition and foundation work is now in full swing.

Right at the heart of the current phase of the project is foundations contractor Stent Foundations, sub contracted the project's main design/build contractor

and Australia's largest commercial construction company, Multiplex Constructions.

New and used hydraulic crawler cranes and piling equipment specialist, AGD, was awarded the contract to supply Stent with the craneage for its part in the Wembley project. These comprise three, 70 tonne capacity IHI CCH 700's, with 54 metres of main boom, two, 50 tonne capacity IHI CCH 500's, each with 51 metres of main boom and one, 30 tonne capacity telescopic IHI crawler unit. Two 70 tonne capacity DCH 700 heavy duty piling cranes have also been converted to carry Stent's own Watson Piling rigs.

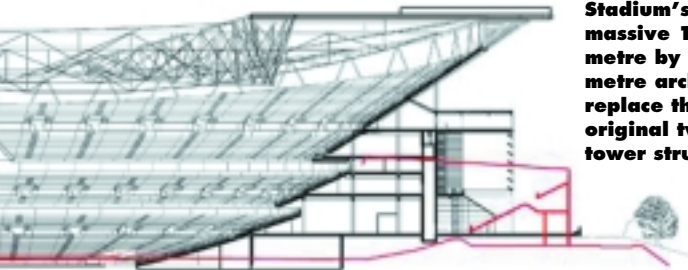
The other cranes on site are engaged in handling duties for reinforcing cages and other ancillary equipment. "AGD Rental has been involved from the start of the Wembley contract", says Phill Ritchie of AGD Rental. "We have been consulted by Stent on crane selection and the conversion of the DCH 700 cranes to handle the rigs whilst being able to be converted back to lift cranes very quickly. Part of the long term rental contract was to decorate several of the units in Stent's blue and green livery".

"There's certainly a great deal of equipment interface going on at the moment", says Anthony Reynolds, project manager at Stent, "it's a very active site at present and it is likely to get even more so when the actual construction

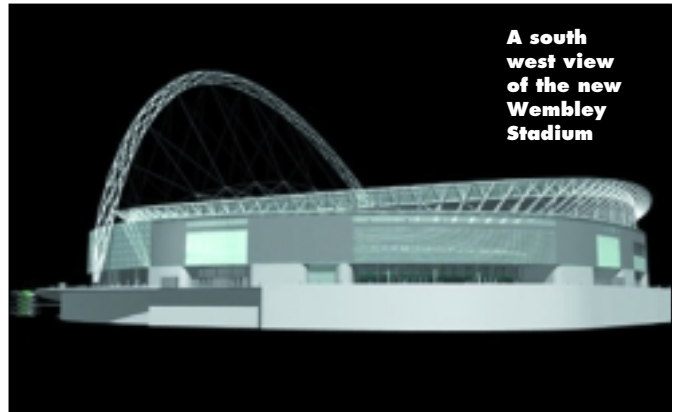


**One of AGD Rental's 70 tonne capacity IHI DCH 700 heavy duty piling cranes being assisted by two, 50 tonne capacity IHI CCH 500 handling cranes**

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The new Wembley Stadium's massive 133 metre by 315 metre arch will replace the original twin tower structures



A south west view of the new Wembley Stadium

# n England...



Part of the long term rental contract between Stent Foundations and AGD saw AGD's equipment painted in Stent's blue and white livery. Pictured is one of AGD's IHI DCH 700 piling cranes fitted with one of Stent's Watson piling rigs

begins. Our units will remain on site for the next 40 weeks or so".

Stent's crawlers have also been joined on site by a 200 tonne Kobelco CK2000 crawler unit rigged with 73.2 metres of main boom. The unit is assisting Griffiths McGee Demolition Co as part of a 23 week project, which includes the removal of the roof of the old Wembley structure.

Also joining the project is HTC

Plant, (the new owner of Hewden's tower crane business), which this month is supplying the first units of a total of 14 Wolffkran cranes to be delivered over a two year period. Two WK-7031 rail-mounted saddle jib cranes will be first on site, followed by two static WK 7031's and three WK-6522 saddle jib units. Finally, for the first phase of the project, a WK 320BF luffing jib will complete the delivery. The company says that it will

have no less than eight cranes on site at any one time throughout the project.

Further down the construction timeline sub-contractors Cleveland Bridge Group will also be joining in the development party, following its securing of a £60 million deal with Multiplex Constructions to supply and erect steelwork for the new structure. Part of the Group's contract includes the construction of a massive arch (see main pic) that will replace the famous twin towers.

Construction of the 133 metre by 315 metre arch is scheduled to begin in late 2003, where it is proposed that the 1650 tonne steel structure, after being rotated into place by a series of cranes and pulley systems, will support the stadium's 7000 tonne retractable roof. With the roof structure complete, the arch will be permanently set at 68 degrees from the horizontal position. Cleveland Bridge Group's Andy Smythe said that the company is scheduled to move onto the site next June and will remain there for the next two and half years. The company is yet undecided on who it will turn to for its lifting capacity needs.

Following the erection of the arch structure, and the completion of most of the stadium's substructure and roof by late 2004, the remaining schedule comprises the fitting of seats, facilities, heating, drainage and the laying of the pitch itself by mid 2005. The stadium is scheduled for an early 2006 kick-off. ■