

Banagher Concrete Ltd, Banagher, Co. Offaly, Ireland T +353 (0)57 9151417 F +353 (0)57 9151558 E info@bancrete.com W www.bancrete.com

STADIA (AVIVA Stadium - Lansdowne Road)



Sustainability plays a major role in any construction build in today's environment and AVIVA is no different. In the context of the overall structure of the stadium, concrete uses less energy in its production than a steel frame. Ground Granulated Blast Furnace Slag (GGBS) is used up to 40% in the concrete cast for the project. The reduced carbon footprint can be up to 30 times less than with conventional cements. High performance polycarboxalate superplasticizers helped also to reduce cement contents and this has led to significant reduction in the embodied energy footprint.

Banagher Concrete Ltd. having completed the podium over the railway line were also appointed main precast supplier to the stadium. One critical item, the premium tier raker beams, posed a significant challenge to the construction team. Designed as an in-situ element, Banagher proposed a precast alternative. These units which were manufactured and transported from Banagher weighed in at over 60 tonnes each. Taking items such as this off the critical path ensured that program deadlines were met, while guaranteeing consistent high quality finish to all concrete.

Self Compacting Concrete (SCC) was chosen for all the precast units and this allowed more complex forms to be fabricated. Reducing the cast (trowelled) area ensured a top quality finish on all exposed faces and this was particularly important on the terrace units.

Dealing with innovative new methods (GGBS, SCC, maturity and waterproof concrete) on a 21st century project poses insightful ways of approaching the future of stadium construction, 12,000 tonnes of precast was manufactured, delivered and installed on site on time and to the highest precast specification to the AVIVA Stadium.









PRECAST CONCRETE SPECIALISTS



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