Example Statements

Friday 1 October 2021

Please refer to the **Awards Entry Guidance** when completing your CONSTRUCT Awards application.

Projects

Designed by Populous, (company name) initially constructed the RC foundations and pilecaps for the six RC cores, crane bases, stands, and basement box. The superstructure included the construction of the Post-Tensioned slabs, 9-storey jumpform cores, installation of 6,500 pre-cast elements, and composite slab construction on the South Stand steel-frame.

During our works, we achieved 1.75m man-hours RIDDOR free, placed 90,000m3 of concrete with our largest single pour at 650m3 and largest day pour at 1,500m3, installed 18,000t of rebar and excavated over 120,000m3 of muck.

With many other projects having seemingly arbitrary deadlines, the construction of the (project name) was dictated by a rigid footballing calendar and the need to minimise the absence away from the ground during construction, which included complex public interface and logistics planning. (Company name) worked closely with (project name) to successfully complete our element of works in the timeframe.

(Company name) started on the project in October 2015 completing the following phases of works: Phase 1 – Pilecaps, waterproof basement, horseshoe concrete frame of North, East and West stands totalling 60,000m3 Phase 2 – Pitch slab, composite slab, garage slab, and stadium hotel basement totalling 30,000m3.

Our approach to building the stadium was to start at the North elevation and move in both directions along the East and West gradually working over multiple levels and workfaces in a planned and coordinated sequence achieving the high class fair- face finishes specified for vertical elements and powerfloated slabs; at which point the demolition of the existing stadium and piles had been constructed ready for us to complete Phase 2 through both day and night working.

Some unique and challenging design and successful construction methods included:
• Post-stressed concrete beam Macalloy bars at 57mm diameter resulted in complex stressing operations with 9 bar pressure and each end-plate weighing 1T.
• Reverse engineered transfer beams, installing strands through ducts after the beams the beams were cast.
• Double and triple height columns via atriums including 10m concrete encased steel 1000x1000mm columns and 10m high, 800mm diameter concrete columns.
• L6 core 5m cantilever slab at 30m from ground level.
• +-5mm tolerances for the sliding pitch channels over the length of the pitch.

<u>Substructure Construction:</u>
The basement boasted heavy TW shoring schemes to support the sheet piling whilst excavating and constructing the lining walls for the basement. Achieving Grade 3 waterproofing and heave protection throughout, which we encouraged changing from the original design allowed for lighter reinforced steel installation resulting in a 70% cost saving for the client. Part of this substructure included a 650m3 raft slab constructed in a single pour.

Post-Tensioned Slabs:
(Company name) were appointed as the designers for the PT Slabs. The floor plates ranged from 275mm deep 9.43×7.65m grids to 325mm deep 10.1×11.5m grids. The most important milestone was the fans walkway which were 450mm deep to deal with heavy loads, including 1000T capacity crane loadings and vehicle traffic movements; where (company name) and Walsh's slab designs were bespoke to ensure safe handling of these forces.

The slab at each level was split into six areas separated by movement joints and the use of (formwork company) Concremote thermo- couplers provided live concrete curing strengths which ensured accuracy for the stressing and striking of the PT slabs.
The design of the stadium was unique in many respects. It had to contend with a structure that was to a large extent XC3 exposure class – only levels 3/4 were XC1 – which meant crack-width control – rather rigorous for a PT structure – needed to be adhered to with a further check on decompression.
The design of the stadium presented a multitude of other challenges;
• integrating our design with Raker beams which form the mainstay of any large stadium,
• integrating steel beams with shear studs as well as Y columns exerting massive horizontal forces on the slab.
• horizontal forces at movement joints that necessitated the use of horizontal-only shear transfer dowels
• PT transfer beams that supported Raker beams to allow double span executive boxes at level 3.

Some may have assumed that the stadium was just a collection of PT slabs, however this was just the tip of the iceberg when it came to explaining the complexity of the design that the team was faced with. Months of planning to ensure the design outputs were aligned with the current areas in which we were working and overall production output was maintained despite variations in the scope of works and ensuring any changes were actioned before concrete was placed.

The use of PT resulted in a significant reduction from a 425mm equivalent RC solution, reduced column numbers and load transfer structure, and decreased the amount of reinforcing steel needing to be installed.

Core Construction:
The six cores were constructed using (formwork company) and (formwork company) jumpform systems. With the fast-moving programme, building these cores ahead of the slabs ensured PT slabs weren't constrained by the core construction. The reuse of formwork reduced waste on site, was effective as the cores were designed as 2 sets of 3 permitting reuse of the same shutters for multiple cores and passing on cost-savings to the client, as well as providing fair face finishes required for the exposed concrete. Using Doka Concremote thermo-couplers allowed us to get live concrete strengths and improve on our core jumping times.

Column Construction:
We constructed 1,101 insitu columns ranging from blast columns in the basement to 10m circular columns in the frame. Technical fixing of steel in the column heads allowed for the casting and supporting of the rakers which carry the terrace unit stands.

Column positions were cleverly designed to eliminate any obstructing views for spectators.
The majority of columns were designed and constructed to allow for punching shears resulting in using custom made Formfab Martini Glass shaped steel column shutters to meet this design specification. The fair-face finishes on vertical works would be the most visible concrete element of the stadium next to the floor slabs, and as such there was no room for error in ensuring stunning finishes were achieved on this project.

Raker Beams & Precast Terrace units:
We installed both precast and insitu raker beams. These have been designed such that the heaviest insitu rakers weigh 32T at 28m. The quality control for construction both on-site and at Macrete's prefabrication yard went through stringent inspections to deliver the highest construction and quality finishes were achieved as well as ensure the safety and stability of the stands; particularly when

colour matching rakers fabricated off-site and those cast onsite.
Temporary work schemes involved in lifting, installing and supporting rakers and terrace units

required carefully calculated in- house designs and compliance constructing to designs, which led to 6,000 terrace units and 500 raker beams installed using mobile cranes up to 400T with superlifters, cantilever lifting beams, and meticulously tested ground conditions to complete the stands of the stadium seamlessly.

Polished Floors:
The conception of polished surfaces commenced when the Club asked us to investigate polished concrete. The surfaces also needed to be harder wearing with less maintenance than expoxy resin surfaces. We researched and trialled all the systems on the market in order to expose aggregate and polish the concrete; this added the extra consideration to matching infilled builders holes and carrying out repair techniques. This also led to us amending our concrete placement techniques for the polished composite slab in the South stand.
The specification required slip resistances of +40PTV in wet conditions. On investigation, it was established that the maximum PTV value of polished concrete is +26, which led to us sourcing unique approved products and application techniques to obtain this PTV value.

Polished floor surfaces were completed in general admission areas and the entire South stand.

Sustainability:
Previous grey concrete mixtures for the concourse flooring did not achieve the look the Club was after. Crushed aggregate was mixed in to the new concrete to create a shiny bronze finish and the material was sourced from the Club's former White Hart Lane home, taking aggregate from the foundations and using 4 batching plants to cover the different mix designs and on time delivery to achieve the concrete demand we required.
The Club cleverly sought to make best use of their own natural resources, investing in a concrete plant and material washing facility to separate the abundant River Terrace deposits arising from the basement excavation.

Client Satisfaction:
We successfully achieved the Club's requirements and quality expectations, which ensure fans enjoy the best view and atmosphere for any sports or entertainment event hosted at Tottenham Hotspur's new stadium, increasing the experience and inspiring a wider regeneration scheme across Haringey. "(Company name) has made a significant contribution to the stadium development project - their input has been invaluable as the Club strives to deliver the ultimate viewing experience for every visitor to its new stadium and create one of the finest sports and entertainment venues in Europe." – (Named individual), Construction Director – (Project name).

Health & Safety

There is a lot of technical and health and safety information contained within safe systems of work. Posters and signs assist in communicating the health and safety message but it is often difficult to explain in detail the site requirement in a two dimensional format. This gives rise to the potential of misunderstandings and possible mistakes. We looked at available technology to enhance the communication of technical and H&S information without reinventing the wheel and would require little effort to the end user.

Fortunately, (company name) has a significant library of safety videos that we have developed relating to our specific operations and are continually developing more. The challenge is how to get these out to the workforce in easy and unique ways.

To do this, we developed a series of QR codes linked to our various videos. These were then inserted into the Risk Assessments and Method Statements (RAMS), meaning that on RAMS briefings, the QR code can be scanned and the video will play that is relevant to that briefing.

In addition to this they have been displayed on key posters, for example our working at height posters display the QR codes where we are working at height, by height access equipment and edge protection allowing better communication and availability of these standards.

Our site inductions have been developed into MP4 videos and are voiced over. These were also uploaded and given a QR code so they can now be viewed at at the click of a mobile device. The same was carried out with our high risk activity inductions and are displayed the the high risk work areas to use in daily briefings which all aid in communication and ease of access to the information.

Through this innovative method of combining existing technology and video communication, we have developed an engaging method of briefings to our workforce. Additional features included the ability to select subtitles in any language through the you tube CC system.

We started using this on our project at (location) where (contractor name) are the Principal Contractor. This has now been adopted by (contractor name) on this project as well as being adopted by all the other contractors on site due to the ease of development and success of the outcome.

We have found an increase in conformance with standards and significant reduction in accidents and incidents since the adoption of these as people take a genuine interest of what the QR code brings up on their mobile device. It has also reduced language barrier issues and interaction with technology.

It's the simplicity of the use of technology, with so many people having access to smart devices that has made this a success and so easy to adopt by several companies in industry.

It is said that the simplest inventions are the most effective. We have produced a simple solution to a huge problem utilising technology with which people are already familiar, rather than reinventing the wheel, having an impact on the health, safety and well being of people in the industry.

Developing briefing videos was one part of this solution, utilising QR codes (of which people are already familiar) to get them engaging with the videos in a more accessible way, to view in planning stages, at the workface, or even when commuting (as links can be saved to devices once scanned), is what has made this simple use of technology effective.

Since releasing this, we have had no RIDDOR accidents or major incidents on our sites from August 2018. This has contributed to a 50% reduction in our 2018 AFR from 2017, and a current AFR of ZERO in 2019 with four months left in our financial year.

Unsung Hero

(Nominee name) has been with (company name) since 2005 and has worked his way up from a Carpenter to Senior Construction Manager. He understands and implements the (company name) Health, Safety & Wellbeing values, implements a positive relationship with the workforce and client, understands our operations and risk controls, and has worked on numerous high quality and technically challenging projects with us, including (project name), (project name), and is currently on

the (project name) redevelopment; demonstrating his outstanding commitment to health, safety, wellbeing, quality and environmental assurance, and leadership. (Nominee name) takes pride in his work and doesn't boast about his successes, which is why we have nominated him as our unsung hero.

(Nominee name)'s strategy for planning, communication, and implementation, engages with supervisors and the workforce. His positive reinforcement of making people feel valued has positive impacts on their attitudes and behaviours and his level headedness to not let his status distract him from his ultimate goal of the safest and healthiest delivery of projects is what makes him successful in his role.

His first and last message at every briefing is about health, safety and driving the wellbeing of our workforce and those around us. He is calm, collected and stands back to look at the big picture of what will be happening where and what more can we do to be the best. His focus on quality and organisation to ensure efficient production, ensuring his teams have the right information to cascade to the workforce are also exemplary in these briefings.

(Nominee name) has embraced (company name)'s Proud To Be Safe behavioural initiative and has being actively involved in drafting the content for our latest behavioural programmes. (Nominee name) provided invaluable feedback with regards to influencing the behaviour of the workforce and improving the culture on the project, which prompted development of our latest Behavioural and Performance training programmes.

(Nominee name) conducts risk reviews for high-risk operations where planning for the works is scrutinised by the site team and client. The method of works is agreed as a team and suitable controls are put in place to eliminate or reduce risks to the lowest practicable level. (Nominee name) ensures he provides the time and effort in planning and communicating the methodology and working practices to those carrying out the operations.

RAMS and innovative visual briefings produced for our operations are closely monitored to ensure controls remain effective. (Nominee name) will initiate regular RAMS reviews with all the supervisors to make sure the focus on health, safety and wellbeing is top priority and has even taken part in being the face of some of our videos.

(Nominee name) involves the workforce in the risk control process to positively reinforce HS&W and giving everyone responsibility to embrace (company name)'s Proud To Be Safe values.

(Nominee name) is respected by the people around him and is actively involved in team planning risk review sessions to eliminate /reduce risks and innovate, then actively leading our monthly Stand Downs.
Our Stand Downs involve taking a day out to stop works and refresh the workforce to risks around them or coming up. We implement engaging, innovative, practical experiences to involve the workforce in practical demonstrations that go beyond briefings and toolbox talks.

(Nominee name)'s leadership and enthusiasm are key factors in successful delivery of these stand downs, which have included; Spinal Health sessions, Mental Health familiarisation and support, Crane Appreciation (operatives entering a crane cab on the ground and experiencing tower crane operators

views through monitors), and Olympic Athlete performance coaching.
This has driven the supporting mangers, supervisors and operatives to maintain the highest standards and commitment to project excellence, (company name), and our client's values.

(Company name) invite other contractor's workforce to attend our stand downs on projects– (Nominee name) has been supportive of involving other contractors and has had amazing support from our client's teams in setting up and being involved in stand downs, so together, promoted health, safety and wellbeing across the whole site.

The quality of (nominee name)'s work and his commitment to not accepting lower standards is what his teams say keep them motivated to deliver the best quality products for our clients. His organisation and planning skillset, with his patience and knowledge are the core to successful delivery of our most challenging projects on time, within budget and safely.

(Nominee name) is hard working, friendly, supportive, modest, honest and caring. He goes to work each day to give the best of himself and leaves each day feeling satisfied in the hard work he has done, without wanting praise or to be made a fuss over. He is without doubt the best unsung hero we have.

Young Achiever

One young person who has stood out from the crowd at (company name) is (nominee name), who has shown a flawless commitment to work, high quality of workmanship, eagerness to continually learn and a great attitude to Health & Safety.

(Nominee name) commenced a Formwork apprenticeship with (company name) at the age of 19 in September 2017, after his former employer run out of work and ended his apprenticeship. We were introduced to (nominee name) by (local company) and after impressing us during the interview process, (nominee name) started work and it was clear that we had made the right choice, within weeks of him starting. The reviews that came back from the site team were fantastic. He continued to impress us throughout 2017 when he completed and passed all set knowledge tests at college, this put Alexander at the head of his class with no one else in his group managing to achieve this goal. (Nominee name) aspires to become a construction manager. With his continual drive to improve, we believe this to be achievable. He has already started supporting other apprentices in his team that joined the company after him, which has demonstrated his ability to work with others and earn the respect of colleagues. As he progresses with the company, we hope to continue to see his leadership qualities shine through.

Testimonials:
"(Nominee name) is a star! His attitude and commitment to his learning is second to none. I wish we could have more students coming to college with this level of maturity. He has progressed far beyond his peers and I can see a very bright future for Alexander"
Formwork Tutor (name of college)

"He is hard working, committed to get the job done to high standards and safely, embracing the company standards and ethos in being proud to be safe. (Nominee name) has a positive work ethic and he respects the more experienced carpenters and formworkers on site, but also challenges ideas when he sees a more proactive way to approach a problem"
(Colleague Name)

Project Manager (Company name)
We feel that (nominee name) needs to be recognised for his achievements, we have just given Alexander a pay rise, however, we understand that money is a short-term motivator and if he was to win an award from the trade association that guides and informs the industry he is working so hard to be a part of, we couldn't imagine a more confidence boosting achievement for him to have.