

STEALING THE SHOW

AW Edwards completes the redevelopment of the iconic Sydney Showground



MAIN CONSTRUCTION COMPANY : AW Edwards
PROJECT END VALUE : \$65 Million
COMPLETION : 21st May 2012
ARCHITECTS : Populous Architects
SERVICES : Aurecon
STRUCTURAL / CIVIL ENGINEER : Hyder
BCA/PCA : McKenzies
LANDSCAPE ARCHITECT : Tract

proceeded, despite the added drawback of a wetter-than-usual summer. Steel parts, columns and joinery were either designed, manufactured or procured early from local sources or overseas, larger parts were prefabricated offsite and early identification of critical design issues led to necessary timely modifications.

Project Manager Matthew Bourne outlines the approach taken to one of the most important elements, the playing surface:

‘A major issue on the project was how to re-develop the field of play around several major events and produce a new state of the art 18000m² playing field for the AFL in May. AWE lead the way by forming an early partnership with a major turf contractor and submitting several proposals on how to work around the events. Our final proposal, which was approved, involved early procurement of 10000m² turf (prior to commencing onsite), this was critical as the turf was required to be grown in a certain time of the year to ensure adequate strength and root depth ... The completed product has produced a field of play which passed AFL strict standards and has provided the RAS with a large turf bank for use when required.’

AW Edwards’ stadium specific experience came to the fore during the tight timeframe, and enabled the team of 15 site managers to shave much-needed time off the on-site welding works of steel to precast connections, roofing details and steel to steel connections. The main videoboard was erected in five days.

AW Edwards is an award-winning construction and fitout company with over 91 years of experience. They have won many Master Builders’ Association Awards including the coveted President’s Award for the Epping to Chatswood Rail Lines Stations Project.

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Award-winning construction company AW Edwards could be forgiven for feeling they were on stage as one of the headline acts during their recently completed redevelopment of the Sydney Showground Main Arena for the Royal Agricultural Society and the Greater Western Sydney Giants. That’s because the bulk of their construction works had to be undertaken around a busy schedule of events while the site was a live venue for the Equitana Horse Festival, V8 Supercars, Big Day Out Concert, Soundwave Concert, the Royal Easter Show 2012 and the first GWS Giants AFL match in May this year - all of which presented unique challenges.

The redevelopment commenced in May 2011 and was completed 21 May 2012 in two milestones with the Royal Easter Show handover signalling the end of the first period of construction. Scheduling work tasks for, on average, 300 men on site most days of the year, in two shifts allowed AW Edwards to maximise productivity within a tight timeframe and ensure on time quality delivery of the key redevelopment features:

- Extending the field of play from 15000m² to 18000m²
- Refurbishment of function rooms

- New AFL player rooms, media and medical facilities
- Upgrade of sports lighting including 2 extra light towers
- Construction of 2 new grandstands, food outlets, corporate suites, studios, media facility and dining room
- New lower bowl public area
- New 270m² LED video board—the largest at a sporting ground in the Southern Hemisphere.

An innovative approach to procurement and delivery meant the major events at the Showground were staged successfully as the construction

AFL TV LIGHTING UPGRADE

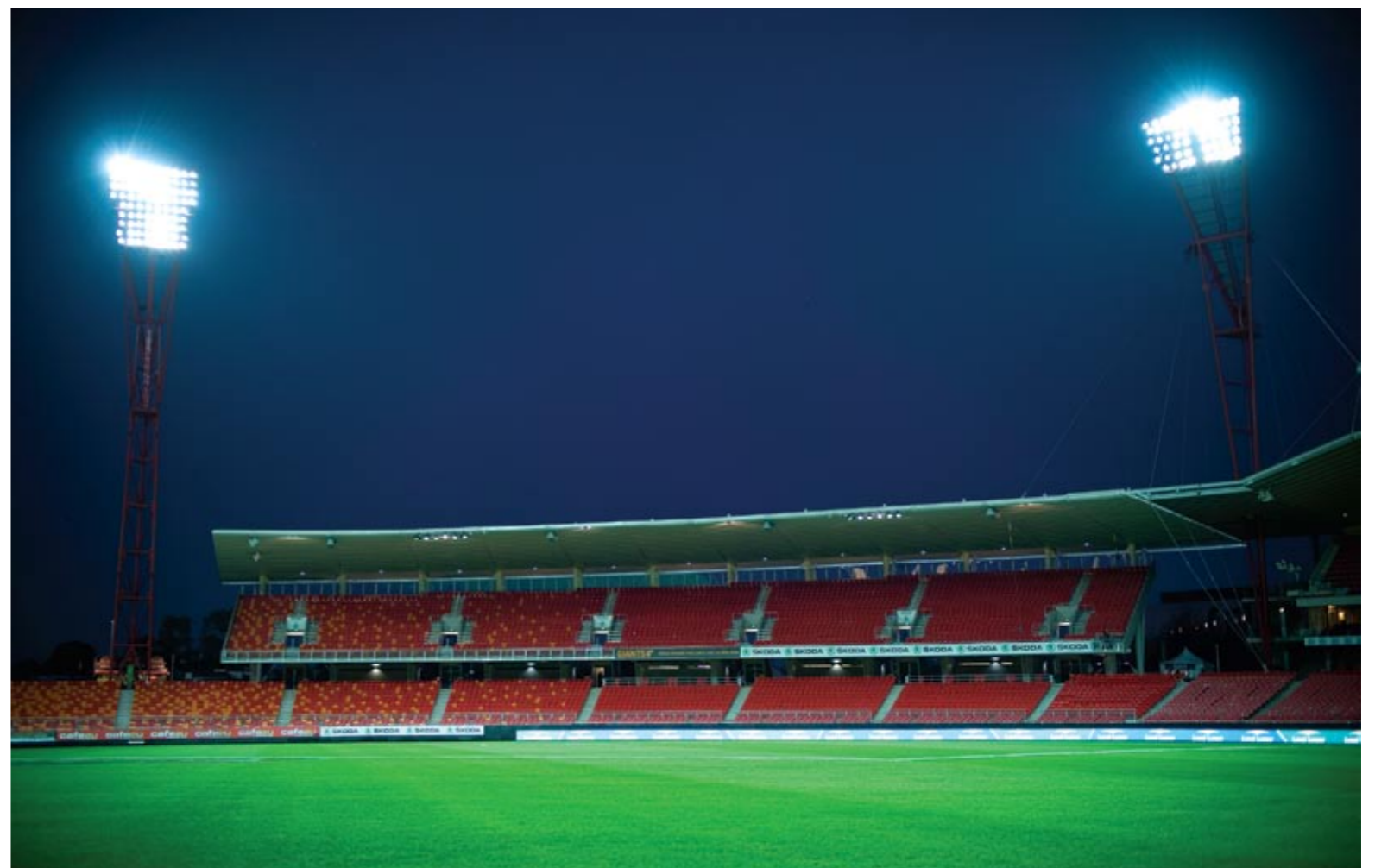
As part of the refurbishment of the stadium, new sports lighting was planned to replace the existing to bring it up to a national standard suitable for AFL TV coverage. This involved the removal of the existing substandard floodlight projectors from the six distinctive triangular red painted architectural towers. Furthermore, the two free standing galvanized towers at the northern end were also removed and replaced with two new architectural types to complement the existing; the end result is now a pleasing coherence.

The original lighting scheme was primarily designed to suit baseball for the Olympic Games. This resulted in a pole layout that is biased to the southern end where the diamond was located. Pierlite provided a lighting design to satisfy the requirements of AFL guidelines and principally provide a maintained average illuminance of 1400 lux towards all camera positions. In essence this means equal lighting from all directions. This presented a challenge to the lighting designer and installer to select an appropriate population of floodlights that would suit the asymmetric capacity of the existing headframe structures while meeting the demanding light technical parameters.

A total of 504 new Forum 2kW floodlights from Disano were supplied by Pierlite. This luminaire has a compact size with a range of five high performance reflectors. This meant the high lighting levels could be provided using the constraints of the existing towers. The exiting towers use 40 or 54 units each, while the two new towers use 80 units each. A further eight clusters of six units are used on the leading edge of the roof to supplement areas for specific camera locations. 48 units were supplied with hot re-strike control gear which will re-start the lamps instantly following a momentary power supply interruption.

Once installed Pierlite engineers aimed each floodlight per the design, and conducted an illuminance survey to prove lighting levels.

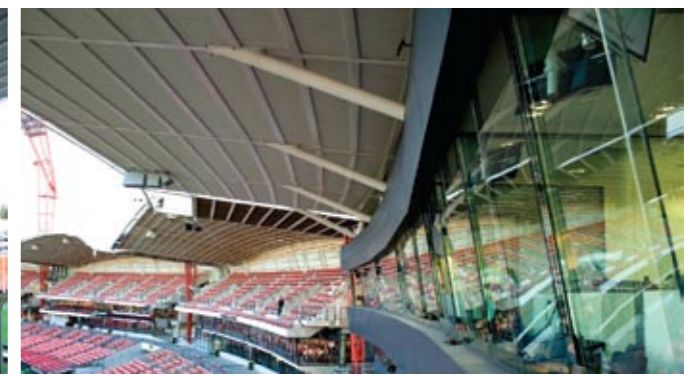
For more information contact Pierlite, 96-112 Gow Street Padstow NSW 2211, phone 02 9794 9300, website www.pierlite.com





BARNWELL CAMBRIDGE LIGHTS UP SYDNEY SHOWGROUND

Image Barnwell Cambridge has successfully delivered complete electrical, communications and IT upgrade.



State-of-the-art electrical and technical installations will feature in the new-look Sydney Showground as a result of the upgrade being undertaken by Barnwell Cambridge and their Data Communications Division, JCB Communications. The company has delivered a complete electrical, communications and IT upgrade in the following areas:

- Electrical –
 - Power
 - Main Switchboard Modifications
 - Lighting
 - Lighting Control System
 - Monitored Emergency & Exit Lighting System
- Data Communications Infrastructure Cabling
- Broadcast Infrastructure Cabling
- Security –Access control & CCTV System
- PA System
- IPTV System
- AV System
- Lightning Protection

A team of 55 electricians and technicians worked to deliver the upgrade that is comparable to the company's innovative refurbishments of the Sydney Cricket Ground and Sydney Football Stadium. Barnwell Cambridge has gained a reputation for tackling large and complex

projects, combining real world experience and diverse skills to stay abreast of changing technology. The company rose to the challenge of a tight timeframe. Group Marketing Manager, Craig Taylor, explains:

'Because of the impending deadline that was the start of the Sydney Royal Easter Show there was a great deal of pressure to ensure that all of the necessary facilities and technologies required for this event were completed and in working order. Wet weather also slowed our progress and compressed the time in which we had to complete our work. Our synergistic approach to project delivery meant that we were able to meet this challenge.'

Barnwell Cambridge are award-winning electrical contractors and engineers offering engineering excellence, financial strength, national coverage and an unmatched range of products and services with innovation, customer focus, flexibility and a competitive pricing structure. The company has extensive experience and expertise in commercial developments, refurbishments and upgrades, data centre builds, multi site rollouts, retail, tourism, leisure, government, sporting and recreation facilities.

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