

Skilled Stadium & Transport Hub Robina Executive Summary

The Skilled Stadium Robina, completed in March 2008 at a cost of \$165 million, is Australia's finest regional sports stadium. This stadium, and the redeveloped \$25 million Robina Transport Hub, provides residents of the Gold Coast region with a world class sporting venue capable of holding up to 27,500 spectators.



Project and construction managers Watpac called upon Qasco to provide the survey and spatial data management services to the project from its inception. The range of services provided to this project were:

- Initial DTM levels over the landfill site via low level aerial photography captured on the date of gaining legal access to the site. This data provides a valuable reference of initial project conditions.
- Extensive dilapidation surveys to surrounding improvements (including the Robina Railway Station) and private facilities.
- Ongoing volumetric earthwork determinations using aerial mapping capturing project milestones.
- Construction and photogrammetric control surveys.
- Ongoing engineering construction and design surveys.
- Simultaneous road opening and closure applications to the Department of Natural Resources and Water.
- Safety surveys, particularly to overhead power-lines to maintain clearances at the Transport Hub.
- Progressive monitoring of landfill levels.
- Land title surveys.
- Cadastral surveys to open and close road and provide easements for service corridors, including 3D volumetric survey.
- Final As-Constructed surveys and the provision of 3D structure models on completion.

Successfully meeting the many rigorous challenges presented with both aspects of the project gave Qasco Surveys enormous satisfaction. All staff were proud to have exceeded the expectations of our clients and made an important contribution to the development of this world class culture centre.

Qasco's involvement in the Skilled Stadium and Transport Hub project represents one of the largest multi faceted projects in the firm's 45 year history. The following features are highlights of the project:

1. The use and integration of the full range of our diverse spatial capture technologies, from aerial photography, to photogrammetric mapping, to ground survey, GIS and 3D fly-through modeling.
2. Project management of the big picture requirements of the contracting manager (Watpac), plus the supply and management of the surveying and spatial data needs of 15 site subcontractors throughout the two year duration of the project.
3. Spatial management by an experienced construction and cadastral surveyor. Survey manager Lee Hellen has worked internationally on highrise buildings and locally on the Lang Park (Suncorp) Stadium and the Gabba Stadium.
4. Provision of a project GIS, updated daily and available to all authorized personnel.



5. Providing the project surveyor with the necessary support facilities to achieve a cost efficient operation. While the logistics of having survey crews operate on an ongoing basis without returning to the "home" base is not difficult to manage, there was a necessity to provide reliable, 24 hour access to survey crews – without the addition of a further layer of bureaucracy.
6. Client access to the full range of spatial skills required for the project through a Qasco one-stop shop. In addition to the technologies identified in Item 1 above, the surveying requirements for the project included ground control by GPS for mapping, dilapidation surveys requiring the systematic recording of detail, RTK GPS surveys for bulk earthworks and drainage design, construction control to millimeter accuracy using first order instruments and checking procedures that included both closures and redundant observations, plus cadastral surveys for titling, easements and volumetric road closures.

7. The experience of Qasco in providing spatial services to South East Queensland's major stadiums. Qasco has been the project surveyor for both the Suncorp Stadium and the Gabba Stadium complexes.