

■ Unique 3D Modelling

Software details 6500t of steelwork for major project

The ability to meet tight construction timeframes and handle large capacity enabled a Western Australian company PDC Consulting to secure the contract for the expansion of the BHP Billiton Rapid Growth Project 3 (RGP3) Area C iron ore mine involving more than 6500 tonnes of steelwork.

The expansion of the Area C mine includes new crushing and screening facilities, a new stockyard and an 8 kilometre overland conveyor. The engineering, procurement and construction management services are being provided by MPDJV (a joint venture between Fluor and SKM) with Monadelphous Group supplying the structural and mechanical construction services.

With the scope and tight construction timeframes, BHP Billiton in conjunction with MPDJV focused on finding a shop detailer that would meet the team's objective of achieving zero rework during construction.

"The shop detailing for Area C was competitively tendered, but awarded to

a single company because we wanted to avoid interface issues," said Alan Pollard, MPDJV Area C Engineering Manager.

"We chose PDC Consultants because it offered the capacity to cover the entire scope of Area C - within a 3D environment."

Using its own unique modelling software system - the PDC 3D Modelling Process - PDC completed 3D modelling and produced shop detail drawings for a primary crusher building, secondary and tertiary crusher building, five bay screening building, scalping and screening building, 38 conveyors and associated transfer stations and sample station buildings.

The PDC 3D Modelling Process combines Navisworks proprietary software and other 3D modelling packages, such as Strucad, Xsteel, Prosteel and Autoplant piping, which allowed the production of intelligent models and information to assist with the design, fabrication and construction phases of the project.

"PDC really managed the workload within the project time frame. This required considerable coordination on PDC's part, well developed integration software and a significant amount of flexibility and determination," said Mr Pollard.

Mark Pensabene, General Manager Iron Ore from Monadelphous, said PDC are playing a major role in the successful completion of the construction phase of the Project.

"PDC is equal to the very best around from a detailing perspective. They've been very responsive to the needs of the construction companies and there's a solid relationship there, so we'll continue to work with them on a number of projects," he said.

Mr Pollard said PDC had been involved with MPDJV projects from their beginning in 2001: "I would recommend them for any project with similar requirements"

Initial production at Area C is forecast to begin in the fourth quarter of 2007.

