

Speedy construction equals happy clients

Big-W Distribution Centre, Hoxton Park NSW



A prominent ASI fabricator is successfully deploying an array of advanced manufacturing systems and techniques to speed development of some monumental portal frame structures.

Sebastian Engineering knows the way well having just completed Big-W's new site in Hoxton Park in Sydney's west, possibly one of the largest portal frame structures built in the Southern Hemisphere to date.

Sebastian principal, **Mark Sgaravizzi** said having considerable beam, plate and angle-line CNC capacity and integrated management of the project made the difference.

"The builder's greatest challenge is managing risk so being able to provide risk insurance by beating construction programs and putting days into the bank is especially appreciated by today's project managers," he said.

"With late delivery (LD) penalties escalating and the risk of alienating the client ever-present, the builder has to manage subcontractors as well as the weather. Every early day is fat in the system and insurance against days lost due to rain or bad weather."

Mark said that his outfit has taken a leaf out of the automakers' books by integrating the drawing, processing, fabrication, delivery and erection on a 'Just in Time' (JIT) basis.

"Working with software like *Steel Projects* and *FabTrol* went a long way to sequencing the whole job in erectable lots," he said. "These programs focus on managing tasks, tracking change orders and RFIs," he said.

"In addition they provide a detailed overview of the production and shipping processes including production planning, basic progress tracking and using the 'shipping manager' to plan and track loads."

He said that Sebastian was able to deliver 10,000sqm a week, every week – erected and 'purlined' out – for the 89,000sqm Big-W Distribution Centre project.

"Handing over such a large portion each week certainly kept the roofing and cladding trades on their game and had the affect of pushing the whole job forward which was most appreciated by our client," Mr Sgaravizzi said.

The project's Building Engineer at Mirvac, **James Crouch** said he was very happy with the outcome.

"Structural steel allowed for a very lean design approach to be brought to fruition neatly," he said. "It all came together like a jigsaw."

He said that the strength of the structure allows for up to 13 metres between internal columns compared to the traditional tighter norm of nine metre intervals. The columns support four-storey high internal storage space throughout.

The facility is also spacious enough for trucks loading and unloading to drive straight through receiving areas without having to turn around, in essence applying a drive-through approach to logistics.

Word spreads

Laing O'Rourke was recently chosen to build a massive data centre in the western Sydney commercial district of Eastern Creek for HP Enterprise Services and quickly negotiated a structural package with Sebastian Group to capitalise on the speed of construction that they offer to the market as demonstrated on Big-W.

The initial build worth \$119 million is due to be completed within the next 12 months.

Mr Sgaravizzi indicated that the construction program is also very tight and that his team will be delivering 1200 tonnes for data halls One and Two in just six weeks by the end of this month.

"Again the flexibility and speed of construction is a major reason for steel being chosen as the structural element for this project and for Sebastian Engineering Contracts being the successful bidder," he said.

Project Team

Builder: Mirvac

Steel Fabricator: Sebastian Fabrication Services

Steel Detailer: Sebastian Engineering Services

Steel Erector: Sebastian Structural Services

ASI Steel Manufacturers: OneSteel (structural steel) and BlueScope Lysaght (purlins)

ASI Steel Distributor: OneSteel Steel & Tube

Steel Processor: Structural Processing Services

Protective Coatings: Central Coast Metal Protectives