



*Scanning from ground level we were able to pick up the trusses and model the steel accordingly saving hours on site measuring. We were also able to highlight the areas, with the model overlaid in the scan, where clashes and connections would not work.*

**Tim O'Sullivan, Project Manager, Watkins Steel**

*Myself and the team were very impressed with the performance of Watkins on the QUT Project – this has been noted around our office & QUT. Nothing was a problem for Tim and always delivered as promised. Look forward to working with you all on future projects.*

**Tim Weihen, Project Manager, Shape Group**

Watkins Steel was contracted by Shape Group to supply and install structural steel for QUT La Boite Theatre at Kelvin Grove. The job required gantry framing in the theatre & foyer entry doorway.



## QUT LA BOITE THEATRE SUCCESS STORY

### Challenges

- The project consisted of a complex design - connecting roof trusses in the ceiling space - making it difficult to access all areas to take measurements.
- The awkwardness and size of the steel in both the theatre and foyer provided for a difficult measurement and installation process.
- Given the tight construction time-frame, Watkins Steel needed to ensure accuracy in fabrication and installation to minimise rectification works that would hold up the project.

### Solution

- Site measurement was completed using the **Faro Focus 3D X 130 Laser Scanner** from the ground level. These scans were loaded into software to digitally re-create a '3D point cloud' model with exact measurements.
- The in-house drafting team used **Telka Structures 3D Modeling Software** to detail the structural steelwork needed for the project. Using the 3D Laser Scan the team were able to pick up the trusses and model the steel accordingly, saving hours on site measurement.
- Once these drawings were done, the completed Telka models were imported into the '**3D point cloud model**' to check for any clashes and verify that the steelwork was in the right position.
- The construction drawings and model were taken to the in-house production team to handle the processing and fabrication of the steelworks using the **Voortman V808 Coping Machine**. Approximately 12 tonnes of steel was processed by the Voortman, saving 100 hours in fabrication time.
- The in-house drafting team were able to provide a detailed **set-out** with the scan. which meant the installation team could work to a high degree of accuracy.

### Benefits



**Guaranteed 100% accuracy of site measurements** using the laser scanner. All measurements were exact.



**Site measurement took 0.5 day-** Saving 3 days and multiple visits.



**Reduced fabrication time.** Using the Voortman V808, 12 tonnes of steel was processed - saving 100hours.



**Improved RFI time.** Sharing the point cloud screen shots alongside plans sped up approvals.



**4 Stage Linked Process** allowed the project to be completed 1 week ahead of schedule, with minimal rectification works.

**Make your project a success with the Watkins Steel difference. Contact the Watkins team today.**

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