



“ Using our 3D Scanning Technology and Robotic Total Station for site measurement, we were able to overcome the challenges of this project, which included uneven ground level and footings designed at varying heights. The accuracy of this technology enabled a seamless flow from measurement through to fabrication & installation, allowing us to complete the job within time-frame with no rectification works. ”

**Ben Yu, Project Manager, Watkins Steel**

“ Watkins Steel were recently engaged by Naturform to complete the structural steel package including covered walkway and deck at our high profile 'Terraces' project at All Hallows' School. Watkins performed extremely well to a tight construction program and delivered a quality, on-time product. Their staff were knowledgeable, pro-active and helpful in overcoming design challenges encountered during the works. I would have no hesitation in recommending Watkins Steel for similar projects moving forward. ”

**James McGregor, Director, Naturform**

Watkins Steel was contracted by Naturform to supply and install structural steel & metalwork for All Hallows School in Brisbane. The job required walkway and deck framing as well as balustrades.



## ALL HALLOWS TERRACES SUCCESS STORY

### Challenges

- The new walkway had 4 locations that needed to be joined to the existing walkway and stair entry.
- Due to the slopping of the ground, measuring the new walkway framing over the existing bridge using traditional methods would have required scaffolding to be erected or a large boom lift.
- With the project needing to be completed during the school holidays, Watkins Steel needed to ensure accuracy in measurement, fabrication, and installation to minimise rectification works that would hold up the project.
- The deck footing was designed at various heights, including footings below the ground, which provided for a difficult layout.

### Solution

- Site measurement was completed using the **Faro Focus 3D X 130 Laser Scanner** capturing the existing walkway, stairs, ramp and roof in one day. 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. Once these drawings were done, the completed Telka models were imported into the '3D point cloud' to check for any clashes and verify that the steelwork was in the right position.
- From there, 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**, saving 100 hours in fabrication time.
- Using the **Trimble RTS773 Total Station** all mark-out points for the walkway & deck were set out on site. This was beneficial to the tight construction time-frame, saving one week on installation.

### Benefits



**Guaranteed 100% accuracy of site measurements** using the laser scanner. All measurements were exact and could be linked to the drawings.



**Site measurement took 1 day-** Saving 2 days and multiple visits.



**Reduced fabrication time.** Using the Voortman V808 machine, 13 tonnes of steel was processed - saving 100 hours.



**Improved RFI time.** Sharing the point cloud screen shots alongside plans sped up approvals, without the need for the consultant to make visits to site.



**4 Stage Linked Process** allowed the project to be completed within schedule, with no rectification works.

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