

Transparent quality assurance for productivity gains

The National Precast Concrete Association Australia is calling on construction stakeholders to improve efficiency and reduce waste by seeking smarter ways to build.

While the construction industry in Australia is a major contributor to the economy, it faces an intractable labour productivity challenge. Further, the industry is a major contributor to waste across Australia, and National Precast Concrete Association Australia's (National Precast) Chief Executive Officer Sarah Bachmann says things need to change.

At a macro level, using precast delivers productivity benefits for the construction industry. Being manufactured in purpose-built factories, it inherently has all the benefits associated with off site manufacture, such as improved quality, safer working

conditions, less cluttered and safer sites, faster construction and cost savings. Importantly, waste produced during the manufacturing process is recycled and on site waste is mitigated because completed elements are delivered ready for installation.

At a micro level, builders need to carefully select the right precaster for the job. The consequences of selecting a precaster purely on price and not doing the appropriate due diligence can be extremely costly.

Bachmann says using a National Precast audited Master Precaster can save the builder hours of work of scrutinising a precaster's



safety performance and practices, quality processes and outcomes, and their track record generally.

With an increase in government spending on civil projects taking place across Australia, she says this has never been so important.

"The industry is busier than ever and that means the association's members and other construction stakeholders need to be as efficient as possible and use reputable suppliers," says Bachmann. "It's now that companies need to be considering smarter ways to build and using more off site manufactured products."

"Also critical is investing in upskilling workers, better time management and improved practices right across the board.

"Quality control needs to be transparent, from the developer down, and that flows on to precast manufacturers – accountability and transparency are key."

The Productivity Commission Inquiry into Public Infrastructure Costs report (2014) points to three possible measures for the construction industry to reduce waste – better procurement and project management skills, improved supply chain integration, and using technology to enhance project outcomes.

Amid Tasmania's civil industry post COVID-19 boom, one company has identified an opportunity to use technology to make inroads into better streamlining its own manufacturing processes while delivering benefits to its construction industry partners and asset owners.

National Precast Master Precaster Hudson Civil has engaged digital software company CONQA to introduce transparency into its quality systems and both the precaster and its clients are realising the benefits of digitising.

Located in Launceston, Tasmania, Hudson Civil manufactures precast infrastructure elements for civil, mining, building development and rural projects. The company has evolved over 20 years to become one of the leaders in major precast products and innovative design.

At the heart of the company's operations is a robust quality assurance system to ensure that engineering design intent is realised, especially around reinforcing requirements and Australian standards, to ultimately reduce risk and maximise production efficiency.



Using precast concrete minimises site waste because exact, complete elements are delivered and installed.



National Precast Master Precaster Hudson Civil is using technology to introduce transparency into its quality systems.

The company has recently transitioned from a traditional paper-based system to a digital system.

According to Hudson Civil Engineering Officer Michael Ross, being guided by CONQA made the process simple.

"While our paper-based system worked well and we had minimal quality issues, going digital has taken it to another level," says Ross. "Paper had its limitations, there were always the challenges of documents being misplaced or damaged, and they were difficult to consolidate."

"This is not only easy for our guys to use, but it brings everything out into the open – it gives our clients access to the documentation and processes we are happy to share, and that would have otherwise taken hours to compile.

"Our clients are happy as they are kept informed of progress and it gives them confidence that we are on top of everything."

Looking at the Hudson Civil example, Bachmann says using a Master Precaster who has invested in digitised quality assurance not only reaps the rewards of off site manufacturing, but of manufacturing processes that are transparent as well.

"Clients are rapt with the results," she adds. ■

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