



# Technical Corner: Keeping tabs on industry wide innovations

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*Innovative technology is crucial to any society's future and, therefore, sorely sought after. That's why the Crane Association of New Zealand's Past President, Scott McLeod, wants you to be more attuned to their hidden risks in this month's The Technical Corner.*

New Zealand owned civil infrastructure supplies company, Cirtex, provided the Southern Hemisphere's first Triton Vault Stormwater System for a new Countdown supermarket build, in Rototuna, Hamilton.

According to the company's case study, various site constraints meant the position available to locate the system was limited to an area under the supermarket loading dock and truck access-way.

"Engineers needed to be confident that the system could provide the required storage volume and perform under a heavily trafficked, finished surface."

Its implementation resulted in 160 Triton Vault units, covering a footprint area of 210m<sup>2</sup> and providing a storage capacity of 212m<sup>3</sup> of stormwater.

However, the location indicated in the case study is also one of the more logical places a crane operator may consider as a safe and large enough site to set up, Scott says.

While the system is an impressive piece of innovation and offers one of the best load ratings available for a stormwater system on the market, the large, concentrated, dynamic loads of a crane pad would likely surpass what has been anticipated in design.

Scott says such developments in technology are coming thicker and faster than in previous eras.

Therefore, every crane operator worth their salt must be ever-more diligent about underground services.

"We've talked about underground services before and their hazards, so I just want to reiterate that stormwater technology is constantly changing.

"Because the technology is changing, we have to be cognisant of it and be more diligent than we've been previously for new developments.

“We all know what’s underground is obviously quite hidden, but this particular example just highlights the need to check, check, and triple check where you’re parking your crane.”

More and more of this type of innovation is occurring across the construction sector – both in commercial and residential – and means getting your hands on the developers’ underground service drawings is increasingly important.

“I saw this yesterday and I thought ‘bugger, we’re going to have an event here if we don’t educate our people about this type of technology and its existence better’.

“It’s about general awareness because these types of innovations are more common than you may think.”

Additionally, newer builds will continue to possess such technology with potentially unknown loading points long into the future.

Scott says councils are approving systems in places where, traditionally, cranes would have been able to park safely.

While these systems are trafficable, and a certain degree of construction loading is tolerable, dynamic loading from an operating crane is not normally considered acceptable.

“Don’t assume you’re safe, this type of hazard maybe just sitting there waiting to jump out and surprise the hell out of you.

“So, take that extra step, work with the project manager, foreman, or speak to the council, and get a copy of the underground services before establishing your crane. We want to always check again because in the past this stuff didn’t exist.

“This is clever technology by Cirtex. Now it’s here and happening let’s remember it exists and be ready for it.”

Scott McLeod

Immediate Past President  
Crane Association of New Zealand