

Civil Pro Mobile App Brings Real-Time QA to the Job Site

QA on a New South Wales roading upgrade ramps up efficiency by ditching paper to go digital.

Highlights

- Time-consuming, paper-based QA steps are eliminated.
- Engineers spend less time on admin and more time performing inspections.
- QA work can be finished in less time with less staff.
- Communication with clients and other parties is simple and immediate.



The Challenge

Georgiou Group is an Australian building and civil construction company that delivers a wide range of engineering services across industries such as urban development, oil and gas, transport, precast, water infrastructure and ports and marine. Jason Carolan, a quality representative for Georgiou, is currently overseeing a road upgrade project in the suburb of Narellan in Western Sydney, known as Northern Road Stage 1. It's just one of many projects Georgiou is constructing around Australia. Carolan manages Georgiou QA (quality assurance) systems and ensures they're compliant with all Roads and Maritime Services (RMS) specifications.

The 3.3-km (2-mi) project involves upgrading an existing single lane carriageway to a two-lane dual carriageway with dedicated bus lanes, and constructing two new 46.5 m (152.6-ft) three-span bridges over Narellan Creek. An existing bridge will be demolished. Work started on the site in February 2016 and will continue until early 2018.

“Western Sydney is a massive growth area,” said Carolan. “Plans are in place for a new airport, so road and other infrastructure upgrades are underway to support it.”

To ensure excellent outcomes, Georgiou maintains sound project management systems for safety, quality, the environment, and risk mitigation. However, until recently their paper-based systems for quality assurance, while thorough, were slow and labour intensive.

“Before the Northern Road project we didn't have a one-stop solution for managing our quality systems,” said Carolan. “We just used spreadsheets, which required printing, scanning, and hard-copy filing”. Georgiou wanted to eliminate the lag in their workflow and unnecessary trips between field and office by moving to a digital process.

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Jason Carolan, quality representative for Georgiou

Solution

“Georgiou is striving to be a paperless company, but you’re not really paperless if you’re photocopying and scanning spreadsheets,” said Carolan. “So we started looking at other options.”

The Blue Sky Contracting Civil Pro software supports lot-based quality assurance and project cost management for construction projects and is widely used in Australia. Georgiou implement the QA module which generates and tracks lots, inspection and test plans, checklists, non-conformances, and test requests. As Carolan and his colleagues in NSW began exploring greater efficiency in its QA systems, they looked to Georgiou teams in Queensland, who were already using Civil Pro. Soon after, they also implemented the Civil Pro mobile web app to provide access to frequently used functions that are needed on the job site. The app lets users interact with their Civil Pro data via a tablet or smartphone, and interact with the client to streamline approvals.

Georgiou explored alternatives to Civil Pro, but they were more suitable for building or high-rise construction, not civil. Civil Pro software, meanwhile, was ideal for Georgiou’s road building projects. “Civil Pro is built and sold by guys who have

knowledge in this field,” said Carolan. “It makes our lives a lot easier when the person we’re dealing with knows exactly what we want.” Now Carolan has Civil Pro desktop on his office computer, and takes the app to the field on his iPad.

Civil Pro is a multi-project data store that generates and links quality assurance records and can record data either electronically or in hard copy. “We can track, for example, health and safety docs through the system,” says Carolan. “It keeps a record of what’s been submitted, so we have evidence that we’ve sent documents to our client.”

The system enables actions such as contacting clients to request inspections. For example, when an inspection is required, RMS (the client for the Northern Road project) receives a request notification. RMS then approves it or not in a mobile response - the interaction is practically immediate. This digital process eliminates the need for emailing, printing, signing, scanning then emailing back.

Georgiou can also contact third parties, for example, their geotech company to request soil testing. “We can send requirements directly to our subcontractor

Test Req. No.	Description	Lot	Date Requested	Control Line	CH Start	CH End	Test Complete
431	SW Line PR 6.1.02-6.1.04: Bed & Haunch	SPSTG 0863 - SW Line PR ...	28/09/2016	MCIA	32.6	42.7	100%
432	SW Line PR 6.1.02-6.1.04: Side & Overlay	SPSTG 0863 - SW Line PR ...	28/09/2016	MCIA	32.6	42.7	100%
433	SW Line PR 6.1.02-6.1.04: General Fll	SPSTG 0863 - SW Line PR ...	28/09/2016	MCIA	32.6	42.7	100%
434	UDF - In situ Stabilisation CH 649 - 676	ISSTG 0803 - UDF - In situ ...	28/09/2016	MCIA	649	976	100%
435	Berkelham Beam - Undergrade of DN2	ISSTG 0801 - UDF - In situ ...	28/09/2016	MCIA	287.5	430	100%
436	Berkelham Beam - Undergrade of DN2	ISSTG 0802 - UDF - In situ ...	28/09/2016	MCIA	430	530	100%
437	SW Line PR 6.3.03-6.3.04: Foundation	SPSTG 0869 - SW Line PR ...	30/09/2016	MCIA	33.1	42.6	100%
438	SW Line PR 6.3.03-6.3.04: Bed & Haunch	SPSTG 0869 - SW Line PR ...	30/09/2016	MCIA	33.1	42.6	100%
439	SW Line PR 6.3.03-6.3.04: Side & Overlay	SPSTG 0869 - SW Line PR ...	30/09/2016	MCIA	33.1	42.6	100%
440	SW Line PR 6.3.03-6.3.04: General Fll	SPSTG 0869 - SW Line PR ...	30/09/2016	MCIA	33.1	42.6	100%
441	SW Line PR 6.3.03-6.3.03: Foundation	SPSTG 0868 - SW Line PR ...	30/09/2016	MCIA	17.4	33.1	100%
442	SW Line PR 6.3.03-6.3.03: Bed & Haunch	SPSTG 0868 - SW Line PR ...	30/09/2016	MCIA	17.4	33.1	100%
443	SW Line PR 6.3.03-6.3.03: Side & Overlay	SPSTG 0868 - SW Line PR ...	30/09/2016	MCIA	17.4	33.1	100%
444	SW Line PR 6.07-6.08: Foundation	SPSTG 0872 - SW Line PR ...	30/09/2016	MCIA	298.1	317.9	100%
445	SW Line PR 6.07-6.08: Bed & Haunch	SPSTG 0872 - SW Line PR ...	30/09/2016	MCIA	298.1	317.9	100%
446	SW Line PR 6.07-6.08: Side & Overlay	SPSTG 0872 - SW Line PR ...	30/09/2016	MCIA	298.1	317.9	100%
447	SW Line PR 6.07-6.08: General Fll	SPSTG 0872 - SW Line PR ...	30/09/2016	MCIA	298.1	317.9	100%
448	SW Line PR 6.1.02-6.1.03: Foundation	SPSTG 0862 - SW Line PR ...	4/10/2016	MCIA	17.1	32.6	100%
449	SW Line PR 6.1.02-6.1.03: Bed & Haunch	SPSTG 0862 - SW Line PR ...	4/10/2016	MCIA	17.1	32.6	100%
450	SW Line PR 6.1.02-6.1.03: Side & Overlay	SPSTG 0862 - SW Line PR ...	4/10/2016	MCIA	17.1	32.6	100%
451	SW Line PR 6.05-6.06: Foundation	SPSTG 0873 - SW Line PR ...	4/10/2016	MCIA	213.9	298.1	100%
452	SW Line PR 6.05-6.06: Bed & Haunch	SPSTG 0873 - SW Line PR ...	4/10/2016	MCIA	213.9	298.1	100%
453	SW Line PR 6.05-6.06: Side & Overlay	SPSTG 0873 - SW Line PR ...	4/10/2016	MCIA	213.9	298.1	100%
454	SW Line PR 6.05-6.06: General Fll	SPSTG 0873 - SW Line PR ...	4/10/2016	MCIA	213.9	298.1	100%
455	DN2 - Layer 1 0.01-1.01 - 1.02	SPSTG 0801 - DN2 - Layer ...	5/10/2016	MCIA	287.5	430	100%
456	SW Line PR 6.05-6.06: Foundation	SPSTG 0874 - SW Line PR ...	5/10/2016	MCIA	162.6	213.9	100%
457	SW Line PR 6.05-6.06: Bed & Haunch	SPSTG 0874 - SW Line PR ...	5/10/2016	MCIA	162.6	213.9	100%
458	SW Line PR 6.05-6.06: Side & Overlay	SPSTG 0874 - SW Line PR ...	5/10/2016	MCIA	162.6	213.9	100%
459	SW Line PR 6.05-6.06: General Fll	SPSTG 0874 - SW Line PR ...	5/10/2016	MCIA	162.6	213.9	100%
460	SW Line PR 6.04-6.05: Foundation	SPSTG 0876 - SW Line PR ...	5/10/2016	MCIA	61.3	103.3	100%
461	SW Line PR 6.04-6.05: Bed & Haunch	SPSTG 0876 - SW Line PR ...	5/10/2016	MCIA	103.3	162.6	100%
462	SW Line PR 6.04-6.05: Side & Overlay	SPSTG 0876 - SW Line PR ...	5/10/2016	MCIA	103.3	162.6	100%
463	SW Line PR 6.04-6.05: General Fll	SPSTG 0876 - SW Line PR ...	5/10/2016	MCIA	103.3	162.6	100%
464	SW Line PR 18.03-18.04: General Fll	SPSTG 0830 - SW Line PR ...	5/10/2016	MCIA	68.3	92.6	100%
465	General Fll 07e - Stabilisation - Layer 2D	CMSTG 0189 - General Fll ...	5/10/2016	MCIA	1,120	1,300	100%
466	Bridge Deck over 1.000m concrete pour	CMSTG 0186 - Bridge Deck ...	5/10/2016	MCIA	0	0	100%
467	Bridge Deck over 2.000m concrete pour	CMSTG 0187 - Bridge Deck ...	5/10/2016	MCIA	0	0	100%
468	Approach Slab Alignment B & X - Order pour	CMSTG 0188 - Approach ...	5/10/2016	MCIA	0	0	100%
469	UDF - In situ Stabilisation CH 676 - 1080	ISSTG 0804 - UDF - In situ ...	6/10/2016	MCIA	976	1,080	100%

The Test Request Register, which Carolan accesses in the Civil Pro app, shows requests linked to the relevant quality assurance lot. The test result report and properties are also linked to the request.



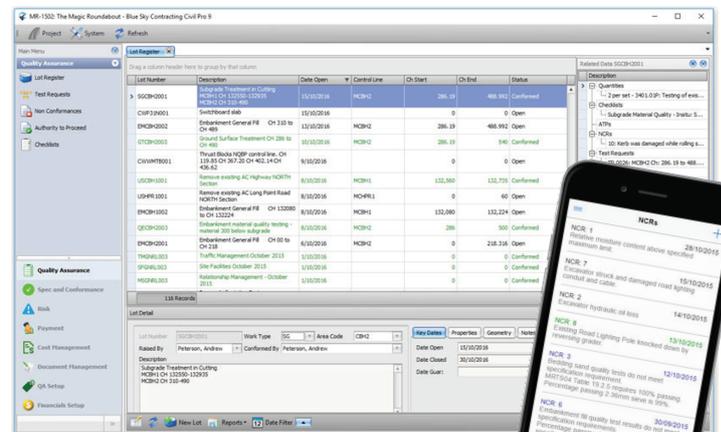
from the job site and have them act on the request without a phone call or separate email,” says Carolan. “This saves an enormous amount of time. Many engineers waste their time in the office doing admin. We’re paying them to do engineering tasks, not file paperwork.”

On the Northern Road job, project engineers, site engineers, the client, inspectors and client representatives are all now running the Civil Pro app on iPads, benefiting from having all the data they need at their fingertips. And yet none of these users needed significant training on the app. “Initially we invited Dennis Gascoigne from Blue Sky to deliver training, but he convinced us that it’s so easy we wouldn’t need it,” says Carolan. “And he was right.” Carolan simply read the document and started to use the app straight away. “If someone knows how a quality system operates they won’t have any issue with it.”

“We can send requirements directly to our subcontractor from the job site and have them act on the request without a phone call or separate email,”

Jason Carolan, quality representative for Georgiou

Jason Carolan, Georgiou quality representative, accesses the Civil Pro app on his iPad. The software simplifies compliance with Georgiou’s contract specifications, especially where payment is validated by lot quantity records.



The Civil Pro app allows you to take it to the field.

Results

Now Georgiou project teams can do everything outside of the office, spending less time in the office and more time on inspections. "This is hugely important," says Carolan. "Our engineers can do the work we're paying them for - we're no longer wasting money by not fully utilising an expensive and valuable resource."

Georgiou is one of the earliest adopters of the Civil Pro app, so their feedback to Blue Sky has been invaluable. Georgiou, in turn, is rewarded with app improvements and enhancements based on that feedback - in effect a customised system. "Over the last 12-18 months we've continuously improved the system. It's pretty exciting what's happening in it," says Carolan.

About Civil Pro

Civil Pro is the industry standard product for lot based quality assurance. The software has been a mainstay of Australian construction for over a decade, supporting major infrastructure and small projects alike. It is used by Queensland Transport and Main Roads, national contractors, large and small councils, mid-tier and small contractors, and professionals in the quality assurance industry across Australia.

Desktop and mobile solutions are available to maximise client/contractor integration and minimise administration. Manage large (or small) registers easily in the intuitive and user friendly desktop apps, then access and extend this same information in the field with checklist generation and verification, lot creation and test request generation. Interact with your client with the online hold point approval system.

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Next Steps

In conjunction, Georgiou is rolling out their new digital process to teams beyond Western Sydney, spreading their improved efficiency state-wide.

Carolan says that whenever the topic of quality audits comes up, inevitably so does the value of visuals. That means adding a photograph to the mobile checklist. "Photographs make life a lot easier," says Carolan. "When you get audited or when your client wants to see how the system operates, nothing is better than showing them in an image that something actually happened." So going forward, Georgiou is working with Blue Sky to incorporate more image-capturing in the app for even greater accountability and quality assurance.

At the same time, Georgiou is rolling out Civil Pro to all its teams in NSW.

With its goal to be the best people to work with, Georgiou has set the bar high for itself. But a new highly efficient digital QA system, complete with enhanced communication capability throughout, makes its QA process easy and seamless for all participants - the perfect complement to its high-quality results.

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