

# CASHING IN ON THE INFRASTRUCTURE BOOM, BUT AT WHAT COST?

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## SETTING THE SCENE

It wasn't that long ago that a \$1B infrastructure project in Australia was considered rare, however, we're now experiencing a once in a generation spend on transport infrastructure. The major project pipeline for most of Australia's capital cities is filled with opportunities for quantity surveyors to be involved with major roadworks, rail and light rail projects. As a result of exponential population growth and major public and private spending across Australia's infrastructure sector, the companies and individuals who service this industry are committing to new heights in terms of their financial risks and capabilities, in an attempt to cash in on the boom.

The magnitude of the projects being delivered is sometimes less apparent than what can be seen during a building industry boom, where cranes fill the skies, and individuals typically take ownership of the end product on a more personal level. In contrast, some of Australia's largest engineering projects are currently tunnelling their way below ground, other major projects are disguised by the dense

urban landscape typically surrounding them, rail corridors are masked by their acoustic surroundings, and at the end of the day individuals generally share the asset with the public upon completion.

A report prepared by Grattan Institute in 2016 concluded that Australian based transport infrastructure projects valued at \$20 million or more, and planned or built since 2001, have cost \$28 billion more than our politicians first endorsed. To put \$28 billion of overruns into perspective, consider constructing one hundred replicas of Brisbane's Suncorp Stadium. Recent studies have also concluded that the larger the project the more likely it is to overrun its budget. It is therefore no coincidence that we are seeing more major projects overrun on time and cost than underrun.

Although there is a large number of high value contracts being let across the country, and the infrastructure market is 'booming', unfortunately not everyone involved is making great profits. The competitiveness of the market, unfair risk allocation, inappropriate procurement models, unforeseen project constraints, restrictive working conditions, mismanaged

design development, etc, are all common trends amongst the major projects currently experiencing budget blow outs.

Some cases are worse than others, however, overall the industry is suffering from what is being labelled by many as a 'profitless boom'. For many, they are paying for the pleasure of their involvement with major projects.

At GRC we understand that our role as construction cost consultants is to influence the unwanted trends centred upon the mismanagement of project cost control. We are continuing to challenge each other to find ways to add value to the projects that we are involved with and raise the overall status of quantity surveying in the process. The challenge of steering major projects towards commercial success in an environment where the odds are stacked against us is what motivates us to perform at our best.

## THE ROLE OF THE QUANTITY SURVEYOR IN THE ENGINEERING SECTOR

The roles for quantity surveyors on major infrastructure works vary and are quite broad by nature. During the project



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feasibility, planning and tendering phases quantity surveyors typically perform more 'traditional' measurement, cost planning, project estimating, feasibility studies, cost benchmarking, cost audits and tender evaluations. Services such as the preparation of procurement advice, cost benefit analysis, value management, risk and contingency development are also prevalent service offerings.

Large scale engineering projects are often delivered under procurement models such as PPP's and D&C's which most definitely benefit from having a quantity surveyor assist with managing project cost control throughout the design development process. In our experience successfully guiding major project work through design development is one of the leading contributors to the overall success of the project.

Throughout the delivery phase of major project work, we are frequently requested to provide procurement services, contract administration, assist with change management, cost forecasting and cost reporting. Our scope can also be extended to include for the preparation of insurance claims and dispute related services.

Professional quantity surveying resources are being used more frequently by parties who are proactive with managing their financial risk. Quantity surveying consultants are often utilised on an ad hoc or at times continuing basis to provide additional support to clients who are either overwhelmed by the volume of their work, seeking to acquire the assistance of a professional, distracted attending to other priorities, etc. Quantity surveyor's benefit from working from a controlled purpose-built cost consultancy environment, utilising cutting edge software, and relying upon tried and tested systems which allows for efficient execution and timely and accurate outputs.

Engaging with a quantity surveyor early in the project lifecycle can have huge benefits to the overall success of major project work. Quantity surveyors are often in a position where they can transfer their knowledge from the tender phase of the project into the delivery phase. Our work outputs serve multiple purposes including procurement, work planning and scheduling, cost forecasting, claims management, etc. Providing the quantity surveyor with continuity can yield great results as the team is familiar with the design, key stakeholders, project budgets, etc.

## CHALLENGES FACING QUANTITY SURVEYORS

Infrastructure projects in Australia continue to gain approval, even though at times the project has a time and cost confidence level of P40. In this case, the quantity surveyor's ability to steer project work towards a commercial outcome that satisfies all involved is overwhelming and somewhat unachievable. The measure of success in most cases can only be linked to the value proposition that can be maintained by the quantity surveyor.

Costing project work in the transport infrastructure space is challenging due to the fact that just about every project has elements which are unique and bespoke to the task at hand. As a result, utilising benchmarked rates and pricing for the purpose of estimating major transport infrastructure work is fraught with danger. In most cases, a project specific, first principles approach to rates and pricing is required to accurately account for the bespoke constraints.

The quantity surveyor must provide work outputs that are complete and accurate and withstand the test of scrutiny applied by others. All outputs must be

prepared with due skill and accuracy to ensure that the integrity of the work can be relied upon by the various end users within the project teams.

## CONCLUSION

As projects increase in size and complexity it is important that we, as industry professionals, develop better systems and processes to accommodate for the challenging requirements of major project work.

In an increasingly competitive market, the cost of getting it wrong can be too much to bear for suppliers and constructors. In the last 18 months some of the nation's most capable and competent operators have been pushed to the wall. Low margins for contractors combined with high risk work often results in financial hardship that can take years to recover from (if at all).

In order to go bigger we must get better. Digital Engineering, 3D printing, drone technology, virtual reality, automation, etc, are all tangible signs of the industry embracing and leveraging off technology to improve. At industry level there is also calls for more collaborative contracting, better managed commercial risk transfer, fairer tendering conditions, etc, which is all really positive and likely to result in time and cost efficiencies. As construction cost consultants, we are encouraged to make a difference and seek out innovation in order to disrupt the negative trends which have become 'expected' when it comes to major project work.

The outlook is positive for quantity surveyors involved with major transport work. The future is exciting for those who are prepared for the challenges that lay ahead. We can only hope that moving forward Australian infrastructure projects are making headlines for all of the right reasons.