

RATIONALISING THE TENDER PROCESS

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ABSTRACT

Capacity Infrastructure Services (Capacity) approached Sinclair Knight Merz (SKM) to develop a streamlined system to 'lift the veil' on their procurement of physical works. Capacity previously received tender evaluation reports of varying quality, with inconsistencies between tender assessment team's evaluations. As a result the process of procuring contractors was drawn out, much to everyone's disappointment.

During development of the system opportunities arose to not only address the issues of consistency, timeliness, openness and simplicity but also to reward good health and safety management, sustainable practices and robust environmental management principles.

The procurement process SKM proposed was designed to cater for typical works contracts as part of Capacity's CAPEX programme. Taking care to remove subjectivity, the system involved a series of assessment matrices to evaluate contractors' non-price attributes, spanning six different categories of three waters construction. To ensure transparency all scoring and how it was derived would be stored in a central database.

Templates for assessment and feedback were developed to ensure the system was consistent and self updating. Contractors have to submit their attributes once upfront. Then subsequent tenders, they need only submit a price and methodology. Reducing their workload and allowing them to focus on a well thought out methodology and an informed price.

KEYWORDS

Procurement, tendering, local government, water network construction

1 INTRODUCTION

Capacity Infrastructure Services Ltd (Capacity) manages in the order of \$20M worth of capital expenditure on behalf of Wellington City Council (WCC) per year. To efficiently manage successful construction of these projects Capacity works with a wide range of Civil Engineering Contractors to successfully complete these projects within a fiscal year.

Capacity utilises a range of external professional service providers as well as in house staff to design and manage the design, procurement and construction monitoring of these projects. In the tender evaluation stage of the procurement process Capacity had received evaluation reports of varying quality, with inconsistent scoring between tender assessment teams. These issues lead to the overall procurement process being drawn out much to the disappointment of all parties. Capacity engaged Sinclair Knight Merz (SKM) to streamline the contractor evaluation process.

The system had to be fair to a range of contractors used by Capacity. It was very important that the system be compliant with WCC’s procurement guidelines and would be able to be implemented without modification of the WCC’s tender documents based on NZS3910.

2 DEVELOPMENT

2.1 FIRST STEPS

Early discussions were held to agree what the outcomes of the proposed system should be. At the core it was decided that the system would only apply to Capacity’s ‘generic’ construction work. Namely open trenching, slip lining and pipe bursting of the WCC three water networks (Sewer, Stormwater and Potable Water). This work occupies the vast majority of Capacity’s construction programme. Technically specialised works such as micro tunnelling were therefore excluded from this system and would be assessed using the existing systems. Contracts of an individual value greater than \$1.5M were also excluded. This final statement would later be qualified with the statement “unless approved by Capacity”, to allow larger, bundled (for example) contracts to be covered by this system.

It was important for Capacity that the issues of consistency, timeliness, openness and simplicity were addressed. After early brain storming sessions and reviews of other organisations’ procurement systems it was agreed that the system should also reinforce the importance Capacity places on health and safety. Other attributes such as the use of sustainable and robust environmental management practices are rewarded through the assessment of attributes within the procurement process. It was agreed that the deliverables for the successful implementation of the system would include: A guidance document to how the system will work, the attribute database and templates for both tender evaluations and project closure reports for Capacity and third party provider to use as part of the overall system.

2.2 STRUCTURE

After a series of internal SKM drafts a core structure was decided upon. It was decided that future tenders would be separated into the ‘three waters’ separated by anticipated contract value based on the engineer’s estimate as set out in Table 1 below.

Table 1: Work Categories

Contract Value	Stormwater	Sewer	Water
0 - \$500,000	SW1	SS1	W1
\$500,000 - \$1,500,000	SW2	SS2	W2

By creating this separation of work categories it became evident, based on past experience that contractors core non price attributes (namely Relevant Experience, Track Record, Technical Skills, Management Skills) within each of these would not change markedly between contracts.

The value separation also served to allow smaller contractors to compete on an equitable level with their relevant experience on the lower value end of the spectrum.

Contractors would be invited to apply for all or any of the above categories without penalty. Each work category would be assessed independently.

The following prerequisites must be met for the attribute registration to be used: The lead contractor must be doing at least 80% of the physical work by value. For a contractor to complete water works (work categories W1 and W2) the contractor's inoculation record must be up to date and recorded at Capacity. The contractor must supply sufficient information to comply with the existing Capacity Health and Safety requirements. Insurance certificates and generic health and safety plans must be up to date.

2.3 ASSESSMENT OVERVIEW

In WCC's current tender document template (and many other procurement systems) the non price attributes which are assessed for a tender are: Relevant Experience, Track Record, Technical Skills, Management Skills and Methodology.

In order to retain compliance with this document these five categories are were carried into this system. As Relevant Experience, Track Record, Technical Skills and Management Skills do not change markedly (as discussed previously) between contracts within a work category, these criteria could be handled separately from the Methodology assessment.

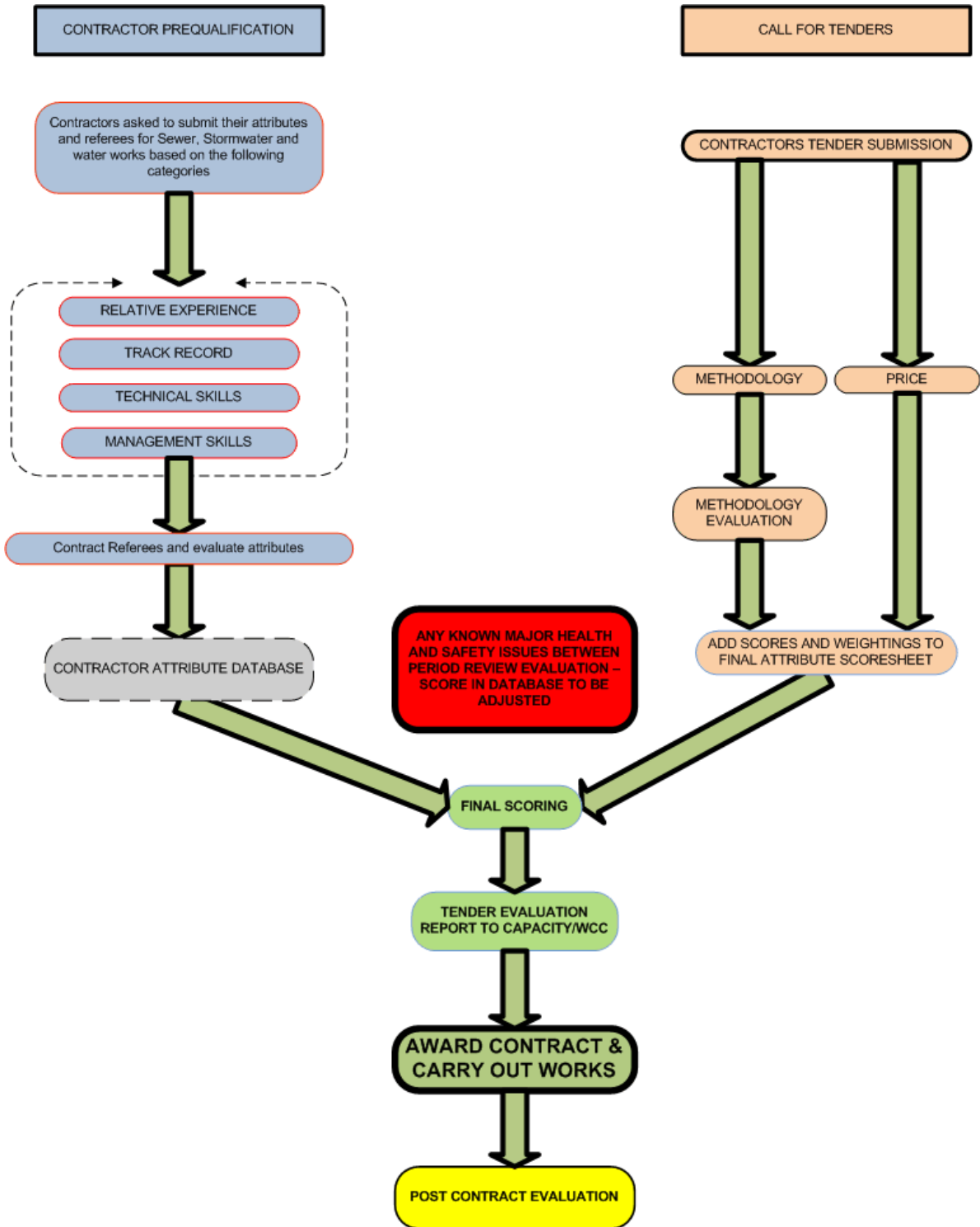
It was decided that Relevant Experience, Track Record, Technical Skills and Management Skills information could be held in the central database, assessed initially and updated on the basis of performance on projects in project closure reports. This update could be annual or as closure reports could come to hand.

Methodology would still be required for each individual bid as the intricacies of a given site, stakeholders and design compromises would have to be carefully considered in a methodology.

These initial decisions had the possibility to significantly accelerate the assessment process. Removing the requirement for an assessor or assessors to verify and then score a contractor's Relevant Experience, Track Record, Technical Skills and Management Skills. At the same time it became apparent that this process would also save the contractor time in completing their tender bid. No longer would they have to supply information on these company details. Instead they could focus on developing a robust methodology and therefore an informed and well derived price!

The assessment for a given tender is as per the flow chart in figure 1, overleaf.

Figure 1: Tender Evaluation Process within a Work Category



Each of the assessed criteria are discussed in the subsequent sections. The details of exactly each criteria's score is derived is not covered here but instead, the Relevant Experience, Track Record, Technical Skills and

Management Skills can be seen in SKM (2010). The detailed methodology assessment system can be reviewed in SKM (2009a).

2.3.1 RELEVANT EXPERIENCE

Traditionally the attribute 'Relevant Experience' refers to the tendering company as opposed to the individuals within that company, i.e. corporate experience. It is measured by whether the Contractor has done the type of work before and how recently.

The assessment criteria derived for this category was kept simple but it was important to note that contractors would have to supply different relevant statements for each category being applied for. Also, relevant experience would be assessed differently between Sewer, Stormwater and Potable Water projects. Recent experience is considered more valuable than historic experience. As such, contractors had to submit experience from the previous 5 years only.

The scoring of Relevant experience was based on the sum of "Construction Works" (65%) and "Public Relations and / or Working in Private Property" (35%) for SW1, SW2, SS1 and SS2. While for the potable water works it was recognised that existing network knowledge was often critical in successfully completing projects, noting also the rarity of private property work. The scoring of relevant experience for W1 and W2 was based on the sum of "Construction Works" (60%), "Network Understanding" (15%) and "Public Relations" (25%).

2.3.2 TRACK RECORD

Track Record is an assessment of the Contractors performance record for all aspects of previous projects within specific work categories. This attribute relates to the level of client (or an agent for the client) satisfaction with the Contractor's performance on specific projects so involves the contractor providing relevant referees for each work stream.

The scoring of Track Record for all work categories was based on the sum of "Quality of Performance" (20%), "Health and Safety Performance" (20%), "Work in Private Property & Public Communications" (15%), "Timeliness" (10%), "Budget" (15%), "Variations" (10%), "Reinstatement" (5%) and "Asbuilt plans" (5%).

2.3.3 TECHNICAL SKILLS

Technical Skills refers to the competency of the personnel within the contractor's organisation, as opposed to the company itself, with particular regard to their skills and experience in technical areas, relative to sewer, stormwater or potable water, and for each value bracket. It will be necessary to assess the contractor's skills in a general context keeping in mind the skill sets required to adequately complete specific works, in this case being sewer, stormwater and potable water for each of the value brackets

The scoring of technical skills for all work categories was based on the sum of "Qualifications / Training" (30%), "Construction Skills" (50%) and "Value Add Initiatives" (20%). However, it must be noted that the assessment criteria for W1 and W2 were slightly altered to reflect the different qualifications considered relevant in the water industry.

2.3.4 MANAGEMENT SKILLS

Management skills allowed the greatest scope for the differentiation of contractors. Typically management skills will evaluate a number of different management systems and the implication of those systems to the benefit of particular projects. General project management as well as programme management and cost management are assessed in this category.

It is necessary to determine the contractor is capable in all these areas and maintains a proactive approach highlighting appropriate information to the client in a timely manner to facilitate informed decision making. Both general project updates as well as H & S incident reporting are very important on any project, to provide the engineer and the client with the contractor's perspective of the status of the project. The contractor's Quality Management systems are part of the assessment in this category.

Environmental management and the implementation of environmental management plans will be assessed under this category. An important aspect of the management skills section is the implementation of both a contractor's methodology, and their site specific health and safety plan.

The scoring of management skills for all work categories was based on the sum "Contractor Project Management"(20%), "Contractor Programme Management" (10%), "Contractor Cost Management" (10%), "Quality Management Systems" (10%), "Implementation of Waste Management and Environmental Management Plan" (20%), "Implementation of Methodology and Site Specific H&S Plan" (20%), "Reporting - Regular reports to Engineer, H&S Incidents" (10%).

2.3.5 METHODOLOGY

As discussed previously a methodology would still be required with each individual tender submission. It is anticipated that contractors will provide improved methodologies as they will not have to submit and other methodologies with their tenders and have time to focus on submitting a robust methodology.

The methodology section is assessed by adding the sum of the weighted scores for: "Scope of Work, Technical aspects of the works including notes or conditions laid out in tender document" (25%), "Planning, Programming & Division of Work" (25%), "Statement of Local Knowledge" (5%), "Health and Safety and Risk" (15%), "Management, Traffic / Pedestrian Management" (15%) and "Public consultation: Resident / Business Liaison" (15%).

2.4 HEALTH AND SAFETY

One of Capacity's key areas of focus is excellence in Health and Safety performance. As such there was a strong desire for Capacity to embed Health and Safety excellence as part of the procurement. Capacity already have stringent Health and Safety requirements of its contractors. It was decided that Capacity will continue to maintain its existing health and safety procedures.

In the evaluation system health and safety management and performance is evaluated as a sub category under the following sections: Track Record, Management Skill and Methodology. Using the feedback made possible by the closure reports, if during a financial year (July to July) poor health and safety performance is observed, a contractor's health and safety scores may be revised within the database on an ad hoc basis following an investigation by Capacity into the issue. In order to maintain an open process Capacity will provide a copy of the investigation report to the contractor.

Additionally in the document that was released for submission it was put forward that “To demonstrate Capacity is committed to excellent health and safety practise it has been decided that any contractor found negligent in an investigation conducted by the Department of Labour (DOL) for a serious harm injury (as defined in the Health and Safety in Employment Act, 1992) on a Capacity managed contract shall be excluded from conducting any work for Capacity for a period of two years, from the date of DOL determination.” This was met with opposition within the contracting community. The argument was stated that in implementing this policy contractors would effectively be punished twice. Once by DOL and a second time by Capacity. This was taken on board by Capacity and it was decided to retain only the feedback based system on contractors feedback scores.

2.5 CONSULTATION

This draft system was issued to Capacity for comment. A working group of Capacity stakeholders and project team members was then formed and the finer details of the various components were worked through. Once the details were agreed a final draft of each deliverable was completed a presentation was held to interested contractors and professional service providers. At the conclusion of the presentation all attendees were presented with copies of the various components for their review and comment.

The presentation and request for feedback was critical for gaining contractor buy in and ‘lifting the veil’ of the procurement process overall. Limited feedback on the system overall was received. Parties who chose to comment were contacted and their comments were incorporated where possible.

Upon the completion of this consultation process a request for contractor attributes document Capacity (2010) based on SKM (2010) was advertised and contractors were invited to submit their attributes. Capacity (2010) was clear and demonstrated exactly how the assessment of attributes would be conducted.

3 FEEDBACK LOOPS

A separate document titled ‘Project Closure Template’ SKM (2009b) will be used as a guide to preparing a project close out report. This template includes a scoring matrix that will be used to score the performance of the contractor on the project. Annually the database will be updated on the basis of these scores.

SKM (2009b) contained a tool that allowed the person writing the project closure report to score the contractors performance on a given project. Once a score was calculated it would be recorded. At the end of the year the average of a contractors performance within a given work category (based on closure reports) will be averaged with the initial score. This new score will then be distributed to the contractor for their records. Should the contractor have any queries they should be open to contact Capacity to discuss the new score. This should remain a simple process as Capacity can immediately refer to project closure reports to reference the contractor’s performance. Professional services providers and the relevant internal Capacity staff will also be forwarded the information in tabular form for use on tender evaluations for the coming year.

In subsequent years the current score will be averaged with the average of a contractors performance within a given work category (based on closure reports). This process ensures that the contractors score will always remain a balance of current and historical performance.

If a contractor had done no work for Capacity in a given financial year their score would be unchanged. This is considered appropriate as if a contractor has not done additional work for Capacity there is not directly relevant evidence of improvement or decline.

The process for updating the centrally held non price attributes is represented in figure 2, below.

Figure 2: Attribute Update Process



4 DATA COLLECTION AND STORAGE

In the initial stages of constructing the assessment system, Microsoft Excel was used. Soon it became evident that to achieve the desire of an open system able to manage multiple data streams, Excel did not have the database capabilities and was dropped in favour of Microsoft Access.

When the database was completed it was delivered to Capacity in Access. The database structure had two distinct areas: Contractor and Assessor. A clear record of each assessors score for each contractor was important in the initial assessment to maintain an open system where there was ownership of each score. Likewise it was important to structure the database in such a way that updating a contractor's score based on subsequent closure reports could be easily implemented.

The database was ultimately exported into SQL, in line with Capacity's other databases.

5 CONCLUSIONS

The process described above does not revolutionise the tender process. This is a key feature of the process, ensuring the system is compliant with existing components of WCC's procurement system and is easy for all parties to understand.

It was important that the changes to the system added value for both the principal and the contractor for a change to be justified. Removing the need for repetitive documentation during the bid phase will allow prospective tenderers the time to carefully consider methodologies and derive an informed price.

The process has already received praise from stakeholders, noting in particular the openness of the assessment process, the consistency of scoring and importantly the potential to accelerate the procurement process. This is no doubt a result in conducting an inclusive, meaningful and early consultation process.

The assessment of submissions is underway at the time of writing. The ultimate success or failure will be the future implementation of the system. If tender preparation and evaluation times can be reduced without compromising quality, the system will speak for itself.

ACKNOWLEDGEMENTS

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