



6. PARKLANDS COMMUNITY CENTRE EXTENSION PROJECT

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Corporate Plan Output: Asset Improvements – Community Facilities 8.9.33	

PURPOSE

The purpose of this report is to recommend to the Council the preferred method of either a Design and Build or Design and Tender Construction process, to complete the Parklands Community Centre Extension project.

BACKGROUND

Following extensive community consultation, a preferred layout for an extension to the Parklands Community Centre has evolved.

Due to a requirement of a Lotteries Board funding application, a resource consent for the preferred layout has been obtained. The outcome of the funding application is now awaited.

In addition, the possible provision of Council underwriting up to \$200,000 has been referred to the Annual Plan Working Party for inclusion in the Draft 2000/2001 Annual Plan, should the lotteries board funding application be unsuccessful.

DISCUSSION

The next step is to decide whether a Design and Build, or the more conventional Design and Tender construction approach is adopted to enable completion of this particular project.

The decision should be based on risk. The following points relate to the risks and expected cost implications associated with either option, with specific regard to the Parklands Community Centre Extension. A summary of these issues precedes the conclusion.

1. The quality of design is of great concern to the client (CCC). It is fair to assume that a greater proportion of detailing is sorted out at the construction stage in a Design and Build operation. Therefore, the CCC risks not knowing what the exact final product will consist of until a late stage of construction. To mitigate this potential loss of control and therefore increased CCC risk, stringent contract documentation and design review/approval mechanisms should be imposed in a Design and Build contract. This in effect is adopting a design process associated with Design and Tender Construction (also refer item 5).

Pro: Under a Design and Build process, the risk to CCC with regard to the potential of an unacceptable final design is potentially reduced to an acceptable level if stringent contract documentation and design review/approval mechanisms are imposed. With this in mind, a variety of designs could subsequently be submitted by competing Design and Build contractors, which will in turn, give the client a range of choices.

Con: Additional costs will be incurred by the client (CCC) as a result of developing unique specific contract documentation for a Design and Build contract. Further cost will result from the contractor having to allow for to a more detailed design. There is also the potential for Design and Build contractors to claim variations (design and construction related) if contract documentation is not watertight. This is difficult to achieve ahead of understanding design limitations.

2. Considering the nature of past/present standardised Design and Build CCC projects, it can be said that the Parklands Community Centre development is unique. For example, Cecil Courts housing development is situated on a vacant site and is based on a previous design (Gloucester Courts). The Council was therefore aware of the standard of the final product so that the design and quality issues resulted in reduced risk. In comparison, the Parklands development requires greater importance placed on the selection of suitably qualified and experienced designers, as it consists of a considerable building extension to mesh in with an existing facility. Therefore, a professional architectural designer that is typically associated with a Design and Tender Construction process would be more suited to this particular project.

Pro: In general, design consultants involved in Design and Tender Construction contracts are suitably experienced and qualified to meet the demands of this project.

Con: Selection of an unsuitable designer may result in a design that does not fully develop the potential of being able to enhance the existing facility, therefore the CCC risks not fully utilising the available funds.

3. Part of the role (and fee) of the design consultant in the Design and Tender Construction process is to also undertake contract administration, act impartially in disputes and supervise construction. Under a Design and Build regime, suitably qualified people would need to be engaged to act on the Council's behalf to perform these roles.

Pro: The risk to the client with regard to the day to day running of the project is potentially reduced to an acceptable level, if suitably qualified people are engaged to represent the CCC under a Design and Build contract.

Con: The cost of the Design and Build project is increased as a result of engaging professionals to act on the CCC's behalf to account for the day to day running of the project, in addition to the Design and Build contractor's fixed sum price.

4. Quality of construction and lifecycle issues need to be addressed with a Design and Build approach in particular. Avoiding a short-term product that will later result in high maintenance costs is essential. Mitigation measures (explained in 1 above) could be employed to avoid this risk to a degree, in addition to specifying a lengthy maintenance period in which the contractor is responsible for rectifying any problems that arise.

Pro: The risk to the CCC with regard to quality of construction and lifecycle is potentially reduced to an acceptable level, if an extended maintenance period is adopted under a Design and Build contract.

Con: The cost of a Design and Build project is increased as a result of the contractor factoring in to the fixed sum price the costs associated with rectifying remedial problems over a prolonged maintenance period.

5. Part of the detailed design phase in the Design and Tender Construction approach typically includes CCC review and approval stages, in addition to value management exercises, that are consequently factored into the design consultant's fee. This approach enables greater CCC control prior to tendering and eventual construction. CCC will also have a greater appreciation of the detailed work and is therefore able to approve a pre-tender estimate. CCC can also negotiate with the successful Design and Tender Construction contractor, if the tendered fixed sum price exceeds the pre-tender estimate, prior to construction commencing.

Pro: Under a typical Design and Tender Construction contract, CCC has greater control in approving the design prior to the involvement of a contractor, therefore avoiding the possible risk of an unsuitable design at an unacceptable cost.

Con: Under a Design and Tender Construction contract, the consultant design fees may be greater than the Design and Build design fees, due to the inclusion of client control measures.

6. In a Design and Tender Construction process, the scheduled (itemised) tenders provide reduced risk for the contractor as no design work is borne by the contractor. In essence, the Design and Tender Construction contractor has only to price a completed design, which has been itemised. Design and Build contractors must allow for design work to establish a fixed sum price, consequently, preferred contractors may not be prepared to risk the extra design expense. This point is also reinforced by the fact the contractors seldom take advantage of "alternative design" clauses in CCC contracts that provide for Design and Build. This may be due to an apparent poor risk/reward ratio.

Pro: When tendering, there is less risk to a contractor involved in the Design and Tender Construction process, as all design work has been completed by the design consultant, therefore only pricing of scheduled items is required.

Con: The Design and Build contractor must be prepared to bear the cost of design work associated with finalising a fixed sum price if they are unsuccessful. Consequently, not all CCC preferred contractors will be prepared to risk this cost, therefore leaving CCC with the potential risk of not having suitable contractors bidding for the work.

7. CCC has a more extensive history with contractors involved in the Design and Tender Construction process, whose past performance can therefore be more easily assessed. However in comparison, evaluating an appropriately qualified and experienced Design and Build contractor to suit this unique project (integrating an existing facility), is more difficult.

Pro: CCC could reduce the risk of engaging unsuitable contractors by choosing to tender to a select group of contractors under a Design and Tender Construction contract, whose performance can be based on previous CCC projects.

Con: The selection of an appropriate Design and Build contractor suited to this particular development is potentially more difficult, therefore this introduces further risk to CCC.

8. Each process would involve tendering. As implied, a Design and Tender Construction contract involves the construction component of works to be tendered. A Design and Build contract would involve tendering the entire package of work.

Pro: Tendering in each process enables the most appropriate candidate to be selected based on evaluation that compares all tenders impartially.

Con: There is time and cost associated with tendering under each process.

Furthermore, despite the pros and cons of either option it must also be understood that:

- The construction industry is competitive at present, therefore the tender price for the contractor's component of either option is expected to be attractive.
- The concept design in effect has been completed by way of the community consultation that has taken place, and the necessary information that was required for the approved resource consent application.
- Under either process, it is appropriate to engage the independent quantity surveyor that has had involvement in the project to date to act on CCC's behalf for the purpose of payment verification, financial reporting, tender evaluation and preparing estimates.

SUMMARY

Design and Build Pros

- CCC will be able to choose from a selection of designs as each contractor will submit individual designs as part of the tender (refer item 1).
- Stringent contract documentation should reduce the risk of an unacceptable design or an unacceptable cost (refer item 1).
- Professionals representing CCC could be engaged to deal with the day to day running of the contract (refer item 3).
- An extended maintenance period could be adopted to further reduce the risk of a poor quality product and excessive CCC maintenance costs (refer item 4).
- Tendering the entire contract allows for a comparison of contractors and enables an impartial evaluation/selection process (refer item 8).

Design and Build Cons

- There is additional cost to CCC in preparing and implementing stringent contract documentation unique to this project, engaging professionals who represent CCC in the day to day running of the contract and imposing extended maintenance periods (refer items 1,3 and 4).
- There is the risk that contractor variations (design and construction related) will result if contract documentation is not completely accurate (refer item 1).
- There is greater risk to the contractor who must bear the cost of a design if their bid is unsuccessful, consequently, not all preferred contractors may be prepared to tender for the work (refer item 6).
- There is time and cost associated with tendering the entire contract (refer item 8).

Design and Tender Construction Pros

- CCC has greater historical experience with contractors operating under this process, therefore selection of a suitable contractor can be based on personal experience (refer item 7).
- There is less risk to the contractor as the design has been completed by the design consultant, therefore only pricing of a completely designed product is required (refer item 6).
- CCC has the opportunity to modify the design to accommodate the budget (if necessary), prior to contractor involvement and/or negotiate changes with the successful contractor before construction commences, therefore avoiding associated variation claims (refer item 5).
- All professional fees to carry out the day to day running of the contract are included in the consultant's fixed fee (refer item 3).
- Professional architectural designers are well suited to unique (non-standardised) projects of this nature (refer item 2).
- Tendering the construction contract allows for a comparison of contractors and an important evaluation/selection process (refer item 8).

Design and Tender Construction Cons

- Typically, the consultant design fees are generally higher when compared to Design and Build design fees, due to the inclusion of client control measures (refer item 5).
- Only one design will be presented to the client for approval. (refer item 1).
- There is time and cost associated with tendering the construction contract (refer item 8).

CONCLUSION

Considering the effort involved in seeking funding for this project, it is of primary concern that the funds available are spent wisely and the risk of unnecessary expenditure is minimised. It is also essential to choose a relevant process (Design and Build or Design Tender and Construction) to complete this particular project.

Based on the above evaluation, the appropriate process for this specific project is the conventional method of Design Tender and Construction. Under this preferred method, the design review and approval process allows CCC to gain control in terms of what specifically is being designed and the likely project cost prior to contractor involvement. This process also provides the CCC with flexibility to further negotiate with the successful contractor to address concerns of cost if necessary, prior to construction commencing. Furthermore, this process allows selection of the most appropriate designer and the most appropriate contractor for the job (i.e. independent of each other), at a time when the construction industry is very competitive.

There is no apparent reason to deviate from this preferred conventional process by opting for Design and Build. The design control measures (CCC review, approval, day to day running of project) that would be necessary to accommodate the requirements of this unique project would require additional cost. These measures would also result in CCC achieving a similar design arrangement as for Design Tender and Construction contract, so why adopt this option. In addition, the expected competitive pricing of the construction component of a Design and Build contract should not differ from that of a Design Tender and Construction contract, if the same standard of design is achieved under each process. Another consideration is that the Design and Build process would also involve tendering the construction contract, therefore no savings in time or cost would be achieved. Once again, there appears to be no advantage in seeking an alternative to the Design and Tender Construction approach.

In summary, the needs of this particular development are best suited to a Design and Tender Construction process, that should result in less risk to the client (CCC).

- Recommendation:**
1. That a Design and Tender Construction process be adopted for the Parklands Community Centre Extension project.
 2. That the Council invite a selected group of contractors (maximum of seven) to tender for the construction works.

Chairman's

- Recommendation:**
1. That the above recommendation be adopted.
 2. That, in addition the Council invite three architects (including City Design) to submit proposals and a fee structure for the design work.