Evaluation of PPP procurement structures – benchmarking delivery of a large public infrastructure project.

An exegesis submitted in fulfilment of the requirements for the degree of Master of Applied Science

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July 2008
ABSTRACT

A recent shift in Australian government policy has led to the establishment of a new statutory council - Infrastructure Australia (IA). IA will advise infrastructure stakeholders on a range of issues including creating a more consistent approach to Public Private Partnerships (PPP). This research presents a case study of a landmark PPP project in the Northern Territory, Australia to evaluate Australian PPP practices with world’s best practice. This analysis yields results in the form of recommendations to improve the efficiency of the delivery of PPPs for major public infrastructure.

Methods

A PPP benchmarking modelling criteria was developed from the literature review on PPPs and PPP projects which addressed the following areas:
- Project procurement process and structure
- Roles of stakeholders contributing to those projects
- Contractual relationships and arrangements
- Design and construction risk
- Public interest and perception
- Maturity of the marketplace
- Examination of PPP deals within Australia

Qualitative and quantitative data was gathered through private consortium participant observations of the Darwin City Waterfront (DCW) project throughout the entire procurement process spanning nearly three years and was presented as a case study representing Australian PPP practice.

Analysis and Results

Evaluation of benchmarking modelling criteria against the case study to formulate recommendations to structure and enhance the approach for utilisation of PPPs in the Australian context form the research results. The discussed findings uncovered that underneath the complex structure of PPPs traditional design & construct contracts underpin the agreements among construction partners. These contractual arrangements are imposed by private financiers whose involvement diminishes at the commencement of construction.

Conclusion

This research achieved its objectives of
- Identify key attributes and variables that influences the design of a PPP Project
- Identify key actions and events that influence the outcomes generated by a PPP project
- Model design attributes and variables, and actions and outcomes found in PPP literature
- Evaluate Australian practice as demonstrated in a case study, using the benchmark model
- Discuss findings and present conclusions

Whilst PPP’s develop long term relationships the strength of this relationship comes into question. Incorporation of alliance partnering approaches to alleviate “adversarial contractual relationships” and moves to service provider led consortiums rather than finance-led, provide enhanced value-for-money and public perception outcomes. Incorporating the presented matrix of recommendations including adoption of standardised processes in structuring PPPs affords greater public acceptance and use across a broader range of public sectors.
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<th>Title</th>
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<tbody>
<tr>
<td>BAFO</td>
<td>Best and Final Offer</td>
</tr>
<tr>
<td>BOOT</td>
<td>Build Own Operate Transfer</td>
</tr>
<tr>
<td>RFBFO</td>
<td>Request For Best and Final Offer</td>
</tr>
<tr>
<td>AusCID</td>
<td>Australian Council for Infrastructure Development (now part of IPA)</td>
</tr>
<tr>
<td>BOOT</td>
<td>Build Own Operate Transfer</td>
</tr>
<tr>
<td>CDP</td>
<td>Call for Detailed Proposals</td>
</tr>
<tr>
<td>CW</td>
<td>Connell Wagner P/L (renamed Aurecon P/L)</td>
</tr>
<tr>
<td>D&amp;C</td>
<td>Design and Construct (alternatively D&amp;B, design and build)</td>
</tr>
<tr>
<td>DN&amp;C</td>
<td>Design (Novated) and Construct</td>
</tr>
<tr>
<td>DA</td>
<td>Development Application</td>
</tr>
<tr>
<td>DBFO</td>
<td>Design, Build, Finance and Operate (contract between Public and Private sectors)</td>
</tr>
<tr>
<td>DBO / DBOM</td>
<td>Design, Build, Operate and Maintain (contract between Public and Private sectors)</td>
</tr>
<tr>
<td>DCA</td>
<td>Development Consent Authority (for Darwin, NT)</td>
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<tr>
<td>DCC</td>
<td>Darwin Cove Consortium (the SPV for the collective consortium)</td>
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<tr>
<td>CCC</td>
<td>Darwin Cove Convention Centre P/L (the SPV for the DCEC)</td>
</tr>
<tr>
<td>DCEC</td>
<td>Darwin Convention and Exhibition Centre</td>
</tr>
<tr>
<td>DCW</td>
<td>Darwin City Waterfront</td>
</tr>
<tr>
<td>DFO</td>
<td>(Request For) Detailed Further Offer (same as BAFO)</td>
</tr>
<tr>
<td>EoI</td>
<td>Expression of Interest (similar to RoI)</td>
</tr>
<tr>
<td>EIS</td>
<td>Environmental Impact Statement</td>
</tr>
<tr>
<td>ESD</td>
<td>Environmentally Sustainable Design</td>
</tr>
<tr>
<td>FM</td>
<td>Facilities Manager</td>
</tr>
<tr>
<td>GMP</td>
<td>Guaranteed Maximum Price</td>
</tr>
<tr>
<td>HWE</td>
<td>Henry Walker Eltin P/L (NT operations bought-out by MAH)</td>
</tr>
<tr>
<td>IPA</td>
<td>Infrastructure Partnerships Australia (incorporates the former AusCID)</td>
</tr>
<tr>
<td>LS</td>
<td>Lump Sum</td>
</tr>
<tr>
<td>MAH</td>
<td>Macmahon Contractors P/L</td>
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<tr>
<td>NPV</td>
<td>Net Present Value</td>
</tr>
<tr>
<td>NTG</td>
<td>Northern Territory Government</td>
</tr>
<tr>
<td>OBC</td>
<td>Outline Business Case</td>
</tr>
<tr>
<td>PC</td>
<td>Provisional Cost (Sum)</td>
</tr>
<tr>
<td>PDA</td>
<td>Project Development Agreement</td>
</tr>
<tr>
<td>PFI</td>
<td>Private Finance Initiative (UK terminology for PPP)</td>
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<tr>
<td>PFP</td>
<td>Privately Financed Projects (NSW terminology for PPP)</td>
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<tr>
<td>PPP</td>
<td>Public Private Partnership</td>
</tr>
<tr>
<td>PSC</td>
<td>Public Sector Comparator</td>
</tr>
<tr>
<td>RoI</td>
<td>Registration of Interest (similar to EoI)</td>
</tr>
<tr>
<td>SBMJV</td>
<td>Sitzler Bros. (Darwin) and Barclay Mowlem Joint Venture (now Laing O'Rourke)</td>
</tr>
<tr>
<td>SPV</td>
<td>Special Purpose Vehicle</td>
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<tr>
<td>VfM</td>
<td>Value-for-Money</td>
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1. EXECUTIVE SUMMARY

Alternative procurement structures such as Public Private Partnerships (PPPs) are selectively used to provide large scale public infrastructure and services in Australia.

PPPs can be defined as a complex arrangement between the public (government) and a private sector consortium in which one or multiple traditional construction contracts are formed as a means for governments to maintain its public commitment to supply major infrastructure needs. Some of these arrangements may also include private sector financing and subsequent operation and maintenance responsibilities (Akintoye, Beck & Hardcastle 2003). PPPs are placed to become more widely used for the following reasons:

• The gap between infrastructure capacity and demand continues to widen and existing infrastructure is unable to meet public needs
• Insufficient public investment in infrastructure and services requires private sector involvement
• Government’s mandate to concurrently provide core services and capital development.

In Australia the PPP market is not governed by standardised national guidelines instead unique requirements for each project are developed by each state jurisdiction. This may lead to a reduction in outcome efficiencies. If considered from the outset, maximum benefits from a PPP procurement route are achieved through incorporation of appropriate and clear project structure which avoids adversarial contract forms.

The public expectation for a higher standard of living can only be met by government without impacting upon health, law and order, and education ‘core services’ through increased private sector participation. This leads to the predicament of the public having to adjust to a ‘user pays’ system for traditional public services as more control is passed to the private sector through mechanisms such as PPPs involving private finance.

Governments are now more aware that the procurement route selected for the delivery structure of a large public project has a major bearing upon its success (Miller et al. 2000). Government equally considers PPPs and traditional procurement routes to establish the appropriate project structure. The benefits of using PPPs include:

• Utilisation of private sector finance without drawing down on public funds reserved for core services
• Transfers delivery and operational risk to the private sector
• Reduces time and cost of the project, delivering integrated and innovative solutions.

Data gathering, analysis and interrogation into the use of the PPP procurement route are warranted because they are:

• A new concept with less than ten years in mainstream use by Australian Governments
• Tend to be Projects of large nature in excess of $100m which take several years of planning and construction
• An infrequent occurrence with limited public disclosure of details and arrangements agreed with the private sector
• Restricted by confidentiality clauses of the contract struck between public and private parties
• A small portion of Australia’s infrastructure expenditure only accounting for 10 percent of the national market
• A mechanism for government infrastructure needs without recourse to financing and long lead times.
The research identified the benchmark for structuring a PPP project by examining the following areas:

- Project procurement process and structure
- Roles of stakeholders contributing to those projects
- Contractual relationships and arrangements
- Design and construction risk
- Public interest and perception
- Maturity of the marketplace
- Examination of PPP deals within Australia

An extensive literature review of PPP project design and outcomes was completed to support the development of benchmark criteria accepted as best practice for PPP projects.

Participation in the successful consortium awarded the Darwin City Waterfront (DCW) concession allowed for presentation of the workings of the first PPP delivered by the Northern Territory Government under the Territory Partnerships guidelines as a case study project - representing Australian PPP practice.

The research results were formed through evaluation of the case study against the benchmark criteria, to provide insight into suggested frameworks to improve PPP project practices. Resultant frameworks are reached by discussion of the results and take the form of a matrix of results and recommendations that addressed each of the benchmarking criteria.

The matrix provides direction for future projects and/or further investigation to address strengthening the relationship of the PPP project. This matrix forms the contribution made by this research with the resultant recommendations listed as follows.

- Contract using Partnering and Target Cost procurement methodology to alleviate adversarial relationships
- Minimise participant interfaces in contractual arrangements to enhance time, cost and risk outcomes provided by a PPP procurement route
- Tender process costs to be reduced to facilitate competition through standardisation of responses and processes for participation
- Nil cost to government outcomes are inequitable and should focus rather on public perception of Value-for-Money (VfM) through adequate consultation
- Unnecessary risk premiums can be avoided if equitable risk sharing through development of a pain/gain mechanism
- Where public charges (ie. tolls) are payable, free alternatives are provided to allow freedom of choice by citizens
- Establish service-provider led consortiums during procurement to structure a deal to suit long term commitments rather than short term broker commissions.
2. INTRODUCTION

2.1 Purpose and Objective

The purpose of this research was to benchmark Australian PPP practices against the world’s best practice. Examination of the bid process of a major public infrastructure project delivered through a PPP procurement route provides insight into the workings of Australian PPP practices. Presenting this project as a case study allows subsequent evaluation against PPP project benchmark criteria derived from literature written by academics and practitioners.

The objectives of this research were to:

• Identify key attributes and variables that influence the design of a PPP Project
• Identify key actions and events that influence the outcomes generated by a PPP project
• Model design attributes and variables, and actions and outcomes found in PPP literature
• Evaluate Australian practice as demonstrated in a case study, using the benchmark model
• Discuss findings and present conclusions

Through the course of examining the PPP literature, secondary issues of the shortcomings and benefits suggested common issues within current industry practice. This collective of issues formed the research questions listed as follows:

• Which procurement methods and consortium roles are more suited for PPPs?
• How should governments structure the PPP deal?
• How can PPP projects provide value-for-money (VfM) in achieving the best outcome for the public?
• Is the allocation of design and construction risk entirely to the private sector the best project outcome?
• What are the unique benefits for participants under the PPP approach?
• What are the drawbacks for PPPs?
• Which particular consortium arrangements lead to successful PPPs?

The outcome provides results of a new insight into the existing body of knowledge of PPP delivery.

2.2 Background

Further insight into the Australian domestic PPP market was warranted to understand the application and to expand the use of PPPs and contribute to bridging the gap in Australia’s existing infrastructure and demands upon it.

Peak industry bodies of Australia (Poulter 2004) have identified that such a significant additional investment is required by governments into public infrastructure, that it would impede the capabilities of governments to concurrently provide other essential core services; such as law and order, social, health and education services (Banks 2005; Treasury 2002; Vann et al. 2004). Years can pass by the time it takes governments to establish traditional construction contracts and secure adequate funds, in which time the resulting infrastructure need and environment may have greatly changed. PPPs can address both these issues faced by government, by transferring time and cost risk to the private sector.

PPPs have gained momentum and currently represent 7-8 percent of major project capital in Australia with forecast growth up to 15 percent of the market (Banks 2005), the problem for both public and private players alike considering PPP procurement includes:

• Relatively new (<10 years) as a mainstream procurement structure utilised for all facets of public services,
Evaluation of PPP procurement structures – benchmarking delivery of a large public infrastructure project.

- Costly to set up and procure, therefore only major projects in excess of $100M prove economical to deliver,
- Untested – a public comparator study (PSC) for delivery via traditional methods is not always undertaken, proving to taxpayers that a PPP is the most economical approach. Leaving taxpayers with doubts that this is the best use of public funds,
- Balance between public interest and probity during the bid process, particularly at financial close,
- Debatable public benefit without full disclosure of private sector arrangements,
- Only large corporations from the ‘big end of town’ are involved in bidding due to the high costs,
- Competition is reduced to fewer participants in consortium arrangements, and
- The potential end of free public services, opting for a user pays mechanism (i.e. tolls) to provide an income to the private operator (concession holder) of the asset.

The PPP market in Australian is now considered to have matured (Banks et al. 2004, Larocca 2004) with fifty projects contracted by Australian governments since the late 1990’s (Table 3-4). The focus of these projects have been in the transport and social industry sectors, providing Health, Corrective Services, Public Order & Safety, Education, Recreation, Culture, Road and Rail Infrastructure. Such is the small pipeline of PPP projects nationally that private sector PPP participants (presented in Table 3-7) across Australia, that the case study project presented in this research based in Darwin would present similar observations had the project been located in Melbourne. Therefore this case study can be considered as a ‘typical’ example of the Australian PPP market for its time.

Fundamentally PPPs provide a vehicle for governments to deliver public assets and services ‘off-the-balance sheet’ by utilising private financing arrangements that ultimately expedite the time for raising capital. Other benefits include the greater potential to deliver public infrastructure in a shorter duration and execution of multiple projects without the budget constraints of government coffers (Grimsey et al. 2005; Robinson et al. 2000).

2.3 Limitations and exclusions

As PPPs are a recent development for delivery of significant public infrastructure projects, limited discussion material was available and this research will add to that discussion in an Australian context.

By nature the lengthy construction and concession period of large infrastructure projects presents constraints, limitations and exclusions for this research.

To truly judge the effectiveness of the PPP approach, the entire life cycle of the project post construction, through operation for the concession period of some 20-30 years should be examined. However this was not possible for this research. For the scope of this research the procurement phase of the case study project was the time span of the PPP deal examined concluding at financial close.

Because of commercial in confidence issues on a project by project deal for PPP arrangements, contractual details are often limited to marketing material that provide only a general account.

PPPs are a relatively new mainstream approach taken by governments around the world and consequently few texts are available on the subject. Those that exist are from the UK and focus on UK policies and project case studies. For this reason Australian government policies serve as the best outline of how PPPs are undertaken on a domestic basis. Much debate into the effectiveness of PPPs is currently circulating in the Australian media, as the momentum builds in the domestic market. Similarly this was reflected in industry key note publications provided on the internet by advisors who consult to both public and private sectors.
2.4 Benchmarking Criteria

Key aspects examined in the literature review provide a benchmark PPP structure. The benchmark criteria presented in section 3 is summarised in Table 2-1.

Table 2-1 Benchmarking Criteria Model

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<tr>
<th>Attribute Description</th>
<th>Explanation of Attribute</th>
<th>Reference from Literature</th>
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<tr>
<td>Project procurement process and structure.</td>
<td>PPPs can utilise a range of traditional procurement approaches depending on the nature of the project risks which often involves private sector finance for projects in excess of $100m value.</td>
<td>Section 3.2 Akintoye et al. 2003 finds responsibilities and risks are diminished in the package-deal type of procurement such in as BOOT structures. von Branconi (2004) finds that the LSTK contracts like the BOOT and DBFO are more favoured by clients for large infrastructure projects</td>
</tr>
<tr>
<td>Contractual relationships and arrangements.</td>
<td>The make up of the consortium involves designers, constructors and operators in addition to financiers and sponsors. The team is assembled upfront through the bidding process and remains in place through the delivery phase until the facility is placed in operation and the performance or availability payments commence.</td>
<td>Section 3.3 To service the private debt tolls or charges on users of the facility indefinitely or for a set period, other variants involve a series of contractual payments (Burrow 2002, para.4). Australian government PPP policies are similar across all jurisdictions as they draw heavily on the State Government of Victoria’s manuals (Sharp 2005).</td>
</tr>
<tr>
<td>Cost of PPP and the public sector comparator.</td>
<td>To offset the key issue of increased costs borne by the private sector borrowings - risk transfer, innovation and other considerations are to be factored into the VfM equation for PPPs.</td>
<td>Section 3.4 PPP form will not always be an appropriate form of project delivery “as they are too complex and costly for many small projects” (Grimsey et al. 2005, pp.376). VfM includes effectiveness, stakeholder satisfaction, performance, skills transfer, accountability, transparency and auditable financials (Clifton 2006).</td>
</tr>
<tr>
<td>Design and construction risk.</td>
<td>Allocation of risk appropriately such that each party is able to effectively manage the risk at an economical cost is at the heart of the PPP arrangement. Typically these risks are those</td>
<td>Section 3.5 In order to secure the private finance for a PPP arrangement the private sector require a fixed capital figure for the project, with no open liability</td>
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Evaluation of PPP procurement structures – benchmarking delivery of a large public infrastructure project.

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<tr>
<th>Attribute Description</th>
<th>Explanation of Attribute</th>
<th>Reference from Literature (Section 3)</th>
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<tr>
<td><strong>Stakeholder benefits.</strong>&lt;br&gt;PPPs are long term relationships (20-30 years) whereby time and costs are reduced by packaging and transferring design, construction, commissioning, operating and ownership risks to the private sector.</td>
<td>Benefits to government and the community focus on time and cost, however the innovation allowed in the design and construction process provide long-term benefits to the whole-of-life consideration of the asset operation and maintenance.</td>
<td>Section 3.6 Governments look to utilise PPPs to allow them to deliver infrastructure with our the confines of public coffers (Perspective 2004) and allowing government focus more on core services. The community benefits by provision of infrastructure sooner, more regularly and of a better standard (Akintoye et al. 2003).</td>
</tr>
<tr>
<td><strong>Issues against PPPs.</strong>&lt;br&gt;Negative issues result due to perceived increased transaction costs and through loss of control.</td>
<td>Specifically borrowing and tender costs, and legal fees are greater for PPPs compared to traditional approaches. Core services (such as teaching and clinical services) must be retained by government to ensure the standard of quality is maintained.</td>
<td>Section 3.7 Public sector loses control of PPP projects in exchange for a better level of service (Burrow 2002, Sheil 2002) through risk transfer to the private sector however at greater cost.</td>
</tr>
<tr>
<td><strong>Examination of PPP deals within Australia.</strong>&lt;br&gt;Several convention centres have been delivered (Table 3-8, Table 3-9) and other similar large infrastructure projects in Australia have used an investment bank-led model (Larocca, 2004)</td>
<td>The average value of PPP projects delivered in Australia has been $400m and there is scope for the number of PPPs to double to meet demand.</td>
<td>Section 3.8 Unlike the UK, there is no requirement in Australia for the long-term service providers to be part of the financing arrangements (Banks 2005).</td>
</tr>
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To demonstrate the workings of a PPP project in Australia this research presents a case study based on observations made from the private sector consortium team involved in the Darwin City Waterfront (DCW) project in the Northern Territory. This project was unique in several ways because it was:

- The first project to be delivered by the Northern Territory Government (NTG) using a PPP approach under the NTG developed PPP policy framework.
- A true mixed-used development comprising both residential and social infrastructure, with value-added components on top of the usual BOOT arrangement.
- A complicated contractual deal involving ‘multiple arms’ of the private consortium
- A contract involving unresolved scope from the financial close deal carried forward as provisional sums into the delivery phase, required the scope to be developed and resolved during delivery.
To support the benchmark model criteria presented in Table 2-1, development of a comprehensive literature review of available industry and government approaches world-wide to PPPs has been undertaken in the following section.
3. LITERATURE REVIEW

To benchmark PPP practices from around the world a literature review of available texts, industry and government approaches is presented to model design attributes and variables, and actions and outcomes that influence PPP projects.

The following areas from the literature review are categorised as identifying design attributes and variables that influence the design of a PPP Project.

- Procurement Approaches for Large Projects
- Structure, Contractual Arrangements and Government Frameworks
- Costs of PPP and the Public Sector Comparator
- Design and Construction Risk

The remaining study areas examined are considered as key actions and events that influence the outcomes generated by a PPP project.

- Stakeholder benefits entering into a PPP
- Issues against PPPs
- Australian PPP Market

Examination of these elements allow the establishment of a benchmark best practice model that considers design and outcome of a PPP project which is used in evaluation of the Australian practice presented in proceeding sections.

3.1 Introduction

Private Finance Initiatives (PFI) originated in the UK during the late 1980’s and have subsequently developed into the framework now commonly used both in Australia and world wide. Although PFI/PPPs are synonymous with the 1980’s privatisation era from the UK, Carthey (2005, pp. 2) finds that PPPs are "unlike a full privatisation scheme, in which the new venture is expected to function like any other private business, the government continues to participate in some way". This view was also supported by Grimsey (et al. 2005) and Vann et al. (2004) who find PPPs place an emphasis on long term rather than one-off contracts.

The concept of government participating as a partner with the private sector has been around for a long time. Government policies for a homogeneous approach to PPPs have only recently been established in the UK and Australia since 1992 and 2001 respectively. Australian PPP policy has developed independently in each state and territory. They have originated in response to the numerous projects contracted since the 1990’s. Investigation was therefore needed to show if these policies prove more efficient than a traditional procurement approach and how should PPPs be structured.

A PPP is a complex arrangement between government or a public agency / authority and a private sector consortium. One or multiple traditional construction contracts are formed to deliver the asset or service, some involving financing and/or subsequent operation and maintenance responsibilities; such that government can maintain its commitment to supply major infrastructure to community needs (Allen et al. 2007; Grimsey 2001; Ng et al. 2002; Spackman 2002).

It is useful at this juncture to outline the difference between a PPP and Privately Financed Project (PFP). The following definition is taken from the NSW Parliament Joint Select Committee into the Cross City Tunnel project (Infrastructure Implementation Group NSW 2005, citied in NSW Parliament 2006b, glossary):
“Public Private Partnership” A Public Private Partnership (PPP) is an arrangement for the provision of assets or services, often in combination and usually for a substantial or complex ‘package’, in which both private sector supplier and public sector client share the significant risks in provision and/or operation.

Privately Financed Project Privately Financed Projects (PFP) are a subset of PPPs, and involve provision by investors of equity capital and debt capital to fund what might otherwise be wholly publicly funded projects financed from NSW Government borrowings and/or budget revenue.

Before governments embark on delivery of a major project using the PPP model, a Public Sector Comparator (PSC) study in the form of an Outline Business Case (OBC) is usually undertaken to indicate that value for money is provided through a PPP delivery and more traditional procurement means should not be pursued. However time and risk transfer, key benefits of PPP, are arguably difficult to cost outright within this study (Jones 2002; Allen Consulting 2007).

Miller (et al. 2000) identifies procurement best practice by benchmarking 60 major large engineering projects throughout the world. Miller (et al. 2000) finds that governments utilise PPPs arrangements to appropriately allocate and share risks because of the significant impact major projects impose, irrevocably transforming the landscape and changing the quality of human life. Such projects include dams, airports, railways and stations, arterial roads and tunnels, schools, hospitals, public housing, water and sewage treatment, power generation and the like (Infrastructure Partnerships Australia 2007).

In subsequent journal articles, Miller (et al. 2001) goes on further to point out large infrastructure projects are notoriously problematic and can take up to ten years once built, before revenue is generated. Such large and often complex projects have high stakes with skewed reward structures in case of success and high probabilities of failure (Miller et al. 2001).

Governments in charge of such large projects under traditional project procurement look to shed risk by engaging competent specialist management and advisors. They are necessary to ensure structured delivery and understanding of the complexities of long-term large scale infrastructure projects (Miller et al. 2000). Much of this skill set is drawn from the private sector.

PPPs are unique in that they are an arrangement made at the front-end of a project in which risks are allocated to either the public or private partner best suited to manage such risk. This front-end structuring has an important bearing on the success or failure of large infrastructure projects. This view was shared by both von Branconi (2004) and Miller (et al. 2000). However Miller (et al. 2000) goes further to state project structure is more important than the project engineering and management elements of the project itself.

By encouraging greater private sector participation in large infrastructure projects communication and contractual lines can become over complex. Layering or multiple interfaces placed into the project structures to accommodate the myriad of participants in the project can lead to its detriment or inflexibility. A lump sum turn key (LSTK) fixed price approach however addresses these concerns according to von Branconi (2004) by reducing both complexity and interfaces, and by having the proponent bear most of the risk.

3.2 Procurement Approaches for Large Projects

Examination of available traditional methods finds that three methods are available and Al Khalil (2002) considers selection of the appropriate project delivery method may be a key project success factor, options are:

1. Design-Bid-Build (DBB) or Design, Tender and Build
2. Design and Construct (D&C) (also known as Design-Build)
3. Construction Management (CM).

Furthermore when faced with the procurement of large projects in excess of $100M, governments seek to share more risks with the private sector outside the confines of the above traditional means by developing (since the 1980's) further options which have a broader focus outside the procurement / construction phase of a project, these are:

4. Build-Own-Operate-Transfer (BOOT) structures
5. Design-Construct and Maintain (DCM)
6. Project Alliancing (PA).

While the client bears more responsibilities and thus risk in the traditional form of procurement, responsibilities and risks are diminished in the ‘package-deal’ types of procurement (Akintoye et al. 2003), such as the BOOT, DCM and PA structures.

These six contractual mechanisms for delivery of large projects are now examined in more detail.

3.2.1 DBB, D&C, CM and DCM approaches

The traditional and most familiar method of project delivery according to Al Khalil (2002) is the DBB approach, in which the government contracts with a designer and contractor separately.

For the D&C approach the government contracts with a single entity for the design and construction, this is successful in cases where the scope is clearly defined and of a standard design, according to Al Khalil (2002). Furthermore a combination of DBB and D&C approaches can occur when the client chooses to novate the designer from preliminary works over to the construction contractor to form the Design, Novate & Construct (DN&C) parties.

The use of D&C and other traditional procurement approaches expend substantial bidding costs to provide the client requesting tenders, with a fixed price or lump sum (LS) proposal. Each D&C proponent inefficiently uses resources to reproduce a preliminary design (Lin 2005). However the benefit the D&C process avails the client is a “reduction in total delivery time” (Lin 2005).

In the CM procurement approach, the construction manager is a consultant hired by the owner to oversee, on his behalf, the process of project development according to Al Khalil (2002).

“Traditionally in this country (Australia), the private sector has played a major role in the construction phase of public infrastructure provision, even in those distant times when substantial ‘Public Works’ departments of the state existed” (Burrow 2002, para. 2).

A Design, Construct and Maintain (DCM) arrangement “...encourages the contractor to take all care in the design and construction phase.”(Jones 2002, pp. 7) This is an extension of the D&C form, also assuming a maintenance responsibility for a significant period of the newly constructed asset.

Traditional approaches have no recourse to adverse contractual relationships with the client. This situation can potentially develop as each party seeks to protect their own interests established through the initial competitive bidding process (Lin 2005).

3.2.2 Partnering and Alliance arrangements

The ACEA (2005) finds the term ‘alliancing’ is applied to a broad range of collaborative arrangements, some of which are developed to suit particular sets of circumstances.
“The project alliance model creates a commercial framework where all participants win or all lose, depending on their collective performance against agreed project objectives. This creates both an incentive to achieve project objectives and a ‘best for project’ focus among participants. In comparison with traditional forms of procurement, project alliances rely more on developing trust and strong relationships to drive performance than on the legal and contractual relationship between participants” (Department of Treasury and Finance VIC 2006, pp. 8).

Partnering is a radical overhaul of the conventional (traditional) “contractual form of relationship, so as to encourage collaboration and trust” according to Jones (2002, pp. 7). Cheung et al (2003) points out the potentially complex nature of project relationship building, identifying trust between contractor and client as crucial to successful partnering.

Cheung (2003) explains the wider use of partnering in the last decade by governments seeks to reduce the confrontations between parties thus enabling an open and non-adversarial contracting environment. The goal for partnering (Cheung, 2003) is to improve relationships among contracting entities which is achieved through a management approach to align project goals of all members of the supply chain. Ultimately the benefits of adopting a partnering philosophy at the outset of the project will lead to “...mechanisms that reduce some of the undesirable side effects of traditional contractual relationships” (Hobbs et al. 2001, pp.466).

Alliances are formed for long-term strategic roles, where as partnerships tend to be for a single project or one-off special case. Jones (2002), points out that Alliancing contracts between government and the private sector has been the most genuine form of partnership within PPPs.

The Alliance practitioners guidelines produced by the Victorian state government defines a project alliance as a commercial/legal framework between a government and private sector company for delivering one or more capital works projects. This arrangement is “characterised by; collective sharing of (nearly) all project risks; and no fault, no blame and no dispute between the alliance participants” (Department of Treasury and Finance VIC 2006, pp.2).

An Alliance like the D&C approach offers the combined upfront services of a designer and contractor, however the Alliance’s compensation structure provides greater incentive to perform according to Lin (2005). There is no competitive bid provided in an Alliance tender, instead the successful proponent works up a target cost of the works. The target cost is used to measure an equitable sharing of risk and reward built around a set of behaviours between all contracting parties (ACEA 2005).

Public Private Partnerships (PPPs), Build, Own, Operate, Transfer (BOOT), and Build Own Operate (BOO) are particular forms of collaborations that are more like business partnerships than alliances developed generally to involve private sector participation in government developments (ACEA 2005).

3.2.3 BOOT and Operating Franchise arrangements

The contractual mechanism for a PPP is usually a BOOT contract, also known as DBFO (Design, Build, Finance and Operate). The construction sub-contractor is commonly engaged through a D&C contract as stated by editors Akintoye (et al. 2003). For these reasons it is important to examine what a BOOT contract is and how it is utilised within a PPP project.

A BOOT arrangement can be defined as where “...the contractor takes larger financing and operation responsibility for the project and in return gets a long-term engagement with guaranteed return on capital” (Hallmans et al 1999, pp.109). Contractually a BOOT normally includes a traditional
D&C arrangement for construction (Hallmans et al, 1999) with ongoing operational responsibilities. The focus of procuring private finance and risk allocation for a project may well be the sole intent and starting point for negotiation of a PPP, however the build and operate elements of the BOOT contract are equally if not more important overall due to the length of operational agreement.

BOOT arrangements for public infrastructure projects provide the means for the investment, operation and maintenance costs “to be recovered by way of charges from the ultimate beneficiaries: the public” (Hallmans et al, 1999). Jones (2002) finds that where operation is taken over from the public to a private sector for an agreed concession period for existing infrastructure (ie no construction) that an operating franchise is established. Other variants of BOOT whereby a private financing element is not involved, service quality is enforced through performance remuneration mechanisms.

BOOT type projects combine the design, financing, construction and operation into one undertaking as a private sector initiative (Hallman et al, 1999) or consortium. “The private financing of public projects offers new challenges and roles for all parties involved: contractors, consulting engineers, operating companies, the financial sector, legal contract specialists, the international funding agencies and of course national and local governments” (Hallmans et al 1999, pp.109).

Underneath the surface of a BOOT arrangement, key consultants are engaged using adversarial traditional forms of contract. Collaborative partnerships are not extended beyond the key client-project sponsor / contractor relations. Ng (2002) highlights that time and budget issues of novated D&C arrangements abbreviated as a DN&C, being associated with BOOT type contracts can catch-out the D&C team leading to poor performance. These issues are both relevant to PPP delivery.

3.3 Structure, Contractual Arrangements and Government Frameworks

“Under the PFI/PPP model the private sector (often a consortium of firms) raises the finance from private capital markets to plan, build, own and operate infrastructure commissioned by Government” (Burrow 2002, para.4).

PPPs do not replace or form a new arrangement to complement traditional construction contracts discussed in section 3.2. PPPs result from adapting the partnering principles outlined in government’s policy frameworks, to a specific project to engage the private sector. This is structured utilising a range of traditional methods, in which services not assets are purchased. Initially PPPs were more favoured for infrastructure development however all facets of public services which are subject to outsourcing to private enterprise, may utilise a form of PPP delivery.

PPPs do not have to include private financing and simply contract using BOOT arrangements and according to Jones (2002) many options are available to government to partner with the private sector based on the project characteristics best suited to the procurement framework. Traditional procurement methods have evolved into forms and combinations which promote greater risk transfer and partnering (Jones 2002).

“The public sector can contract with several private sector organisations for the delivery of a given service, the formation of a consortium by the private sector in a PFI(PPP) project is the distinguishing feature of this form of procurement” (Akintoye et al. 2003,pp.96).

PPPs are commonly used by governments as a project delivery vehicle from private industry. Such vehicles or Special Purpose Vehicles (SPVs) are complex and set up only for the project. They usually comprise private consortia of financiers, construction contractors and specialist technical advisors which partner with government to finance, Build-Own-Operate-and-Transfer (BOOT) public infrastructure and services for
government agencies. Jones (2002) concedes that BOOT has formed the backbone of Australia’s PPP experience. The contracting structure of the project participants is outlined in Figure 3-1 below as the typical PPP project setup.

**Figure 3-1 A typical PPP project set-up (adapted from Leiringer 2001)**

![PPP Project Structure Diagram](image)

The way a PPP functions is presented in Figure 3-1, characterised by its reliance on direct revenues to pay for operating costs and cover debt financing while giving the desired service and return on risk capital (Grimsey et al. 2001). Finance, Design, Construction & Operations are key services provided through PPP projects, delivered by the sponsors, client, constructors, facilities managers and financiers. In addition, there are designers who form part of the Special Purpose Vehicles (SPV) (Akintoye et al. 2003).

“The community enjoys the infrastructure provided, and to service the private debt indirectly through a contractual arrangement between the state and the private debt provider. One variant gives the private infrastructure provider rights to collect tolls or charges on users of the facility (road or bridge or power), indefinitely or for a set (concession) period. Other variants involve a series of contractual payments from the government to the private infrastructure provider (prison or detention centre or public transport), for the services provided” (Burrow 2002, para.4).
Grimsey et al. (2001 and 2005) outlines the many forms and features in which a PPP may take and this is shared by Jones (2002), that the PFI emanation of the PPP form will not always be an appropriate form of project delivery “as they are too complex and costly for many small projects” (Grimsey et al. 2005, pp. 376). Therefore Governments have been responsible for development of guidelines and policy for methods of procuring PPPs which suit their methods of contracting and as such these policies need to be examined.

Table 3-1 summarises characteristics of Australian government PPP policies, which are similar across all jurisdictions as they draw heavily on the State Government of Victoria’s manuals (Sharp 2005). This summary is useful in understanding structure of PPP delivery in Australia for comparison with the case study project presented in section 5.

Table 3-1 Australian PPP Government Policy (adapted from Sharp 2005)

<table>
<thead>
<tr>
<th>Policy</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Case</td>
<td>Project Type:</td>
</tr>
<tr>
<td></td>
<td>Infrastructure / services / non-core services / measurable service</td>
</tr>
<tr>
<td></td>
<td>outputs / specification</td>
</tr>
<tr>
<td></td>
<td>Thresholds, value and time:</td>
</tr>
<tr>
<td></td>
<td>Value for money &gt; $10M</td>
</tr>
<tr>
<td></td>
<td>Long term &gt; 5 years</td>
</tr>
<tr>
<td>Public Interest Test</td>
<td>Government transparency and accountability, public rights to infrastructure and services, consideration of the environment, heritage, native title and quality of life.</td>
</tr>
<tr>
<td>Public Sector</td>
<td>Achieving value for money using a comparative device against the cost</td>
</tr>
</tbody>
</table>
Policy | Scope
---|---
Comparator (PSC) | of undertaking the project in the public sector.

Development Process | Order of Tasks:
---|---
(a) Project Definition
(b) Expression of Interest (EoI)
(c) Evaluate (EoI) and development of shortlist
(d) Call for Detailed Proposals (CDP)
(e) Evaluation of detailed proposals (bids)
(f) Negotiations with preferred bidders
(g) Best and final offer (BAFO) or Request for detailed further offers (RFDFO)
(h) Announcement of Preferred Proponent
(i) Contractual agreement and financial close

External approvals | Typical cabinet approval is required at each development process stage:
---|---
(a) Project initiation based on business case prior to EoI call
(b) Selection of EoI short-list / CDP
(c) Financial close

Risk Allocation | General Principles
---|---
(a) Allocated to party best able to manage at least cost
(b) Private sector allocated commercial risk
(c) Public sector allocated regulatory risk
(d) Shared risk – force majeure

Preferred risk allocation
According to the specific requirements of each project. Although generally allocated through classification of risk categories and expressing the governments preferred allocation.

The overall approach for evaluation and establishment of a PPP is detailed in Figure 3-3 where before embarking on the development phase involving the bidding by the private sector, a business case establishes the need for the project. The business case would also involve assessment of the community’s interest through a public interest test and thereafter a financial benefits analysis. This is quantified through the establishment of a reference project and measured using the PSC (Clifton 2006).

Standard documentation has been developed for local authorities in the UK by ‘4ps’ - Public Private Partnerships Programmes (4ps 2006) established in 1996. Comprehensive procurement support comprising hands-on project support, Gateway Reviews, skills development and ‘know-how’ procurement guidance in the form of procurement packs, case studies and extranets for local authorities is provided by ‘4ps’ (4ps 2006). The key differences under the ‘4ps’ approach compared to the Australian Development Process (in Table 3-1) is that the bidding process is a more open two way Q&A dialogue surrounding project outline solutions in order to reduce pre-qualified bidders down to a short-list of 3-4. Detailed solutions are then invited for development by each bidder in the form of method statements, financial models, design submissions and commentary of the model contract. The output specification and the payment mechanism are part of the proposed model contract terms. Whilst the timeframes are similar the effort on the part of the bidder is greatly reduced under the ‘4ps’ process.
The UK has had a single national approach in producing PFI policy through ‘4ps’ and HM Treasury however in Australia the Commonwealth, State and Territory governments have each independently developed their own policies, although common sharing of information has occurred. Sharp et al (2005) provides a comparison of Australian Federal (incl. Department of Defence), State and Territory government policy documents governing PPPs. According to Sharp, the Victorian government leads the way in policy development of PPPs and has lobbied to standardise policies nationally to minimise bidding costs by private sector concerns. The need to standardise PPP policy is also identified by Banks (2005), from his survey of the key players in the Australian market.

Figure 3-3 PFI/PPP relationship continuum (Clifton 2006)

The typical timeframe for each of these procurement stages leading to construction & commissioning of the project is presented in Table 3-2.

Table 3-2 PPP Procurement Timeframes (adapted from Larocca 2004)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business case / Project development</td>
<td>3-6 months</td>
</tr>
<tr>
<td>Expression of Interest (EoI)</td>
<td>1-2 months</td>
</tr>
<tr>
<td>CDP or Bid Phase</td>
<td>6-8 months</td>
</tr>
<tr>
<td>Best &amp; Final Offer (BAFO or DFO)</td>
<td>3 months</td>
</tr>
<tr>
<td>Financial Close</td>
<td>1-2 months</td>
</tr>
</tbody>
</table>
3.4 Costs of PPP and the Public Sector Comparator

“Compared to conventional financed procurement, the PFI approach has brought both benefits and costs. The balance of advantage is often unclear, and at the strategic level the main drivers appear still to be ideology and accounting” (Spackman 2002, pp.283).

PPPs should not be considered as the be all and end all solution or a silver bullet nor be heavily influenced by private finance aspects. A holistic approach to partnering between client (public) and contractor (private) needs to drive the value for money (VfM) comparison rather than the simple need for private finance. This way the Outline Business Case (OBC) assessment that determines if the PPP approach is suitable for the project, will be more accurate (Jones 2002, NSW Parliament 2006b).

Demonstrating VfM to justify the procurement approach such as a PPP is not a straight comparison with the PSC nor should the PSC replace the need for competition between bidders wherever it can be achieved (Grimsey et al 2005). “More PPP-PSC comparisons are criticised for the seeming arbitrariness with respect to the risk transfer and the discount rate, down playing uncertainty and over emphasising financial factors relative to issues of long-term service delivery” (Grimsey et al 2005, pp.375). For a PPP, VfM assessment goes further to include effectiveness, stakeholder satisfaction, performance, skills transfer, accountability, transparency and auditable financials (Clifton 2006). According to Akintoye et al. (2003) the unitary or availability charge and the Net Present Value (NPV) of the services are the main inputs to build the PPP cost to compare with the PSC which uses more traditional contracting means.

Lin (2005, pp.49) also considers that VfM includes:

- Reduced resources consumed
- Increase functional performance
- Time and whole of life
- Relationships
- Risk allocation
- Incentive schemes

“Once the procurement route is well established, competition in the bidding process is relied upon to ensure VfM” (Grimsey et al 2005, pp.359). “What has to be achieved for a PPP to provide best VfM is therefore that the increased costs of finance are compensated in other ways such as appropriate risk transfer and innovations in technology as well as in working procedures” (Leiringer 2001, pp.6). This is the case as “banks generally consider borrowing by the state as a low risk business and in most cases it is cheaper for the state to borrow than it is for a private sector actor.” (Leiringer 2001, pp.6).

Figure 3-4 shows the cash flow benefits to government in comparing a traditional approach to a PPP approach. Under a PPP government does not fund the construction phase. Instead availability payments are made only when the facilities are completed. Government is therefore not exposed to construction cost overruns (e.g. through design or scope changes) and time overruns. Similarly government is not exposed to operational cost overruns through maintenance costs due to poor workmanship and material quality. Instead service payments are locked in at financial close.

Value for money will only be delivered if public sector funding exceeds the additional funding cost associated with the margin of private sector cost of funds over government cost of funds. Furthermore the public sector funding amount must include the risk-adjusted benefit associated with the increased funding certainty resulting from risk transfer to the private sector. (ABN-AMRO 2003)
Leiringer (2001) points out that not much literature is available on the cost savings beyond the risk transfers by the deal breakers at financial close, since cost savings must be realised in the costs of construction and operation to compensate for the more expensive private finance.

3.5 Design and Construction Risk

Although the aim of PPP is to transfer many risks to the private sector, the ideal objective is to allocate risks optimally such that each party bears those risks it is best to cope with (Private Finance Panel 1995), with payment proportioned to that party which carries that associated risk.

Figure 3-4 Cash flow PPP vs Traditional Approach Compared (ABN AMRO 2003)

It was established in section 3.2.3, that PPPs commonly engage the construction and technical team members through a DN&C contract under a BOOT arrangement (Akintoye et al. 2003) which is executed and in position after financial close. PPP as large complex projects by nature, create increased risks to DN&C contractors as it is difficult to anticipate all the design problems during the short bid preparation period (Ng et al. 2002) leading to design development of the elements of maximum influence of the project; e.g. to develop 20 percent of the key design risks which affect 80 percent of the price (Lin 2005 and Akintoye et al. 2003).

In order to secure the private finance for a PPP arrangement the private sector require a fixed capital figure for the project, with no open liability (Clifton 2006). Furthermore Clifton’s industry consultations show that PPP contracts are less flexible compared to other approaches such as Alliancing (section 3.2.2). Since a PPP contract requires up front cost certainty during the bid phase in order for the constructor partner to provide a guaranteed maximum price (GMP), the common form of contracting used is an adversarial form such as Design and Construct.
A study of 60 large engineering projects referenced by Miller (2001), identified that technical risk constitutes 37.8 percent of all risk faced by managers, second only to market related risks (41.7 percent). Also a survey of PPP participants ranking project risks by Bing et al (2004) found that Contractors, Clients and Lenders, whilst having differing risk profiles, found that overall design risk was ranked most important.

PPPs may well serve a better mechanism for government in transferring cost and risk as they see fit, but ultimately the success of the project transfers down the line to the many consortium members once the financing deal is struck and delivery of the project commences. Akintoye et al. (2003) review of construction, legal and financial perspective on application of effective risk management shares Malhotra’s (1997) view that risk sharing is often at the heart of most private sector projects. Yet as a general rule PFI/PPP schemes should always transfer (not share) to the private partner “design, construction and operation risks (both cost and performance)” (Akintoye et al. 2003, pp.8).

“Experiences with PPP contacts show that they really do transfer risk to the private sector when they manage design, construction, operation and financing. If a private partner underestimates that risk, it has to sort the problem out (at their expense). The cost to the state is set upfront. All of this should mean better value for taxpayers than higher taxes” (Perspective 2004, para.13).

3.6 Stakeholder benefits entering into a PPP

“What matters for the community is the quality of the physical and social infrastructure available to it and its cost” (Burrow 2002, para.2). Stakeholders, citizens and taxpayers benefit when provision of new infrastructure occurs sooner, more regularly and of a better standard, purports Akintoye et al. (2003).

Private Finance Initiatives (PFI) originated in the UK during the late 1980’s and the newly adopted term Public Private Partnerships (PPPs) is commonly used by governments as a project delivery vehicle from private industry involving various combinations of traditional design and construction contracting, operating, maintenance and financial arrangements. It would seem the “Finance Initiative” in PFI has been removed from the PPP title, as Jones (2002) points out PPPs do not have to include private finance and suggest an emphasis on “Partnering” is adopted within the contractual mentality.

Skotnicki (2001, pp.72) writes “PPPs initially emerged out of the continued budgetary and borrowing constraints faced by the various governments, and the exhaustion of opportunities for outright privatisation of major public infrastructure.” Government benefit most by reduction of risk, time and cost through a PPP delivery. “The fact that privately financed capital spending is off-budget is often the main reason advanced for private financing. It is a politically attractive argument” Spackman (2002, pp.288). “With historically accepted accounting conventions, the PPP/PFI model also keeps the infrastructure project and its financing off the public accounts, giving the appearance of smaller government and lower public debt” (Burrow 2002, para. 4).

“Private financing of public services has produced clearer objectives, new ideas, better planning and the incentives of wider competitive tendering.” Spackman (2002, pp.296).

Akintoye et al. (2003) finds that the primary benefits of the PPP procurement method is the reduction in time to implement the project when compared to more traditional methods commonly used by government, and goes on further to outline six key areas below where government benefits from choosing PPPs, which is also shared from many other sources such as Jones (2002), Poulter (2004) and Sharp (et al. 2005).
3.6.1 Enhance government’s capacity to develop integrated solutions

PPPs allow government to procure infrastructure without the restrictions of public coffers, according to Poulter (Perspective 2004). Poulter of PricewaterhouseCoopers consults to government and private sectors in a financial and legal advisory capacity explains this by outlining how governments when using traditional procurement methods, focus on reducing costs such as the upfront construction costs, which ultimately reduce the facilities life-span.

Goldsmith (1997) the mayor of the US city Indianapolis explores utilisation of private sector engagement in public sector services and finds “...citizens in many countries are demanding ever higher levels of services from governments, and funds are usually insufficient to meet all these demands...” (Goldsmith 1997 pp.110) without federal government level grants or other forms of privatisation. Efficiencies for provision of public sector services are being explored such as outsourcing, in order to match what citizens have come to expect elsewhere in dealing with private sector companies (Goldsmith 1997).

PPPs provide a better output through the private sector involvement through all stages of the project life cycle. “In a conventional procurement process, projects with a broad scope are generally broken down into their component parts and managed as separate units that have to be implemented sequentially due to budget limitations” (Akintoye et al. 2003, pp.7)

Akintoye et al. (2003) outlines key benefits of PPPs lead to a greater number of projects being able to be delivered by Government and of a better standard, through greater engagement with the private sector. Furthermore multiple projects can be procured at any one time provided government has in place management structures and policies that are adequate enough.

Specialist PPP advisors to Australian public and private sectors highlights the problems with government using Traditional or non-PPP procurement processes for projects, as:

- “Focused on procurement of assets not services
- Spend depends on budget available
- Assuming risks that be better handled by private sector” (Lacorra 2004,pp.4)

3.6.2 Facilitate creative and innovative approaches

When governments purchase outputs rather than inputs, this provides the best opportunity for savings by engaging private sector’s creativity and management expertise. In the case of a prison the output is the beds for a number of inmates. By changing the public perception of the more beds the more expensive the prison, innovative thinking has been achieved by including operation of the facility in the private sector contract of which rents are charged per bed and also outsourced to other governments (Goldsmith 1997). This outcome would not have been possible under traditional design and construction arrangements.

Re-structuring the construction sector involvement through PPPs can facilitate innovation into the nature of collaboration between design, construction and operations. (Leiringer, 2001)

According to Larocca (2004), PPPs can promote innovation, attract long-term private investment and expertise, and allow government to retain public provision of services.

3.6.3 Reduce the cost to implement the project

When the private sector is involved (Perspective 2004) more money can be spent up front to provide greater flexibility through provision of additional built-in functionality, or increased lifespan, through use of more durable materials, as typical value-add examples.
The problems faced by public sector delivery of major projects causing cost and time over runs involves, “…gold-plating ..without a sensible balance between cost, return and risk…” providing “…little incentive for public officials to take commercial risks” (Akintoye et al. 2003, pp.164). Furthermore “…capital projects are too often hijacked by technical specialists when they should be run by professional project managers” (Akintoye et al. 2003, pp.164).

Initial project cost is not reflective of value for money (Jones 2002 and Perspective 2004), “private sector finance may cost more than government borrowing” (Perspective 2004, para. 10), however PPPs structure provides greatest cost benefit because of the reductions in project time-frames and risk allocation. Larocca (2004) points to the fact that a PPP deal can often include incentives for early completion of the construction program. Typically a PPP will utilise a D&C procurement method within the over arching contractual framework, which is known as an expedient means for completion of the construction phase.

The recent Allen Consulting and Melbourne University report commissioned by Infrastructure Partnerships Australia – IPA (Allen Consulting et. al. 2007) compared PPPs to traditional government delivery and identified cost overruns were significantly lower under a PPP approach. The Allen Consulting (2007, pp.1) report quotes for PPPs, “cost efficiency over traditional procurement, which can range from 30.8 percent when measured from project inception, to 11.4 percent when measured from contractual commitment to final outcome.” Contractual commitment is equivalent to the project milestone of financial close, implying PPPs provide greatest efficiencies in the upfront tendering and documentation phase.

3.6.4 Reduced Project Timeliness

The long-term private sector involvement provides efficiencies which “often saves 20 or 30 per cent for the taxpayer compared to traditional (government procurement) methods” (Perspective 2004, para.9). This is also supported by Akintoye et al.(2003) and Allen Consulting (2007), concluding that the greatest benefits of the PPP procurement method is the reduction in time to implement the project when compared to more traditional methods used by governments in the past.

The Allen Consulting (2007) report concluded that significant timeliness outcomes using PPPs over traditional approaches can be achieved. Statistically this report found that PPPs where completed 3.4 percent ahead of time on average with Traditional projects completed 23.5 percent behind time (Allen Consulting 2007). Similarly in the UK, PPPs have turned around the condition of late delivery and over budget for the case of 75 percent of projects to now “75 percent of projects are on time and to budget” (Grimsey et al. 2005,pp.376) under a PPP/PFI arrangement.

3.6.5 Transfer certain risks to the private project partner

Risk allocation is a primary motivation of PPP policy according to Bing (et al. 2004). Yet Sheil (2002) claims construction risks have already been privatised through the traditional procurement approach of tendering design and construct contracts. This approach captures the major opportunity of construction phase cost efficiencies.

The actual way in which construction works are managed may not change significantly in a PPP(PFI) setting. It is therefore the procurement procedure that primarily distinguishes a PPP construction product from a non-PPP product. However the risks in a particular PPP project are higher than if the same project were done using traditional forms, the reason being the scope of responsibilities of the participants in a PPP project are higher (Akintoye et al. 2003).
PPP transfers the time and cost risk and media attention to the private sector. Grimsey (et al. 2001) finds that the greatest risk to the commercial viability of a PPP project is that the predicted revenues do not materialise at the operational phase of the infrastructure. We now have examples of this in Sydney’s cross city tunnel.

The key benefits to governments of adopting a PPP approach over a traditional government-funded approach are best illustrated by comparing the risk allocation between the two frameworks (ABN-AMRO 2003). Table 3-3 illustrates the broad parameters within which the risk allocation will take place and the transfer of risk to the private sector under the PPP approach providing a VfM solution to government to delegate such project risk.

Table 3-3 Traditional vs PPP Delivery Risk Allocation (ABN-AMRO 2003)

<table>
<thead>
<tr>
<th>Risk</th>
<th>Traditional Delivery</th>
<th>PPP Delivery Model</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Government</td>
<td>Private Sector</td>
</tr>
<tr>
<td>Design Risk</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Construction Risk</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Commissioning Risk</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Sponsor Risk</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Financial Risk</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Operating Risk</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Market Risk</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Ownership Risk</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Legislative Risk</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>Force Majeure Risk</td>
<td>✓</td>
<td>✓</td>
</tr>
</tbody>
</table>

3.6.6 Attract larger, potentially more sophisticated bidders to the project

Business’s from the big end of town are those best suited to bid for PPPs as they can absorb the expenses if the bid is unsuccessful, hence there is a restriction on who participates. “Any company planning to bid for a sizeable PFI (PPP) contract is looking at costs running into the millions (sterling) and has to be sure it can bear that cost, should the bid fail” (Sutherland 2002, pp.32) A consortium of construction and financial specialists is formed such that all necessary aspects of the major project are covered, broadens the horizons of public procurement, and effectively commits those involved to long-term contacts (Spackman 2002).

“The fusion of upfront engineering of the design and the finance with the downstream management of construction and service delivery” (Grimsey et al. 2005, pp.376) from the project inception creates a unique incentive among the partners to perform and get it right more often than not in achieving the project’s objectives (Grimsey et al. 2005).

3.6.7 Access skills, experience and technology

Through the engagement of major private sector firms with access to large labour pools, advanced technical solutions are actively explored to reduce costs and improve efficiency in order to raise the bar above ‘good enough for government’ to be the standard (Goldsmith 1997).

Government employees can focus on core-service provision in PPP projects, rather than the concerns of on going building maintenance which is left to the private sector provider (Perspective 2004). The consortium approach used for a PPP creates a one stop shop with all the necessary skills
Evaluation of PPP procurement structures – benchmarking delivery of a large public infrastructure project.

and experience to more effectively inform the team of the issues through direct access to applicable technology.

In the UK, PPPs “are the main mechanism for extending the role of the private sector in the supply of public services. Private financing has produced better-defined contracts, better contract management, and design innovation.” (Spackman 2002, pp.298)

3.7 Issues against PPPs

3.7.1 Cost and Resource Efficiencies

The UK concept of public–private partnerships “…incurs extra costs, in senior staff time, consultancy and legal fees, tendering costs, new risks, higher costs from concentration of existing risks, central support structures, and some distortion of priorities in expenditure allocation. Where the balance between these benefits and costs lies, to date, will never be known.” (Spackman 2002, pp.299).

The heart of the public policy debate on PPPs according to Burrow (2002) is the objective basis on which PPPs are given precedence over other traditional delivery methods of procurement.

“Transaction costs… of each PPP bid requires significant time and effort to produce” (Tobin 2002, pp.26) that they finish up more expensive than traditional forms of procurement of private sector services. Furthermore the cost of governments using PPPs involving private financing is arguably costing the tax payer more in addition to transfer of risk from government to the private sector, Burrow (2002) asserts.

Arguably PPPs reduce the cost of raising the finance for a large infrastructure project because of the use of private sector borrowings. Sheil (2002) claims is it “inescapable arithmetic” as government’s will be lent money from funds for a return of less than 4 per cent, yet the private sector are charged this premium plus additional risk premiums of 6-8 per cent. Either way, the funding is sourced from the nation’s superannuation funds according to Sheil (2002). This is also supported by Larocca (2004) where the current Australian PPP market trend is for investment bank-led private consortium focused on front-end fees brought about by the debt raising and equity placement. Furthermore Sheil (2002) claims the private consortium charge consulting fees for raising capital, structuring and risk evaluation which is usually 3 to 4 percent of the total project cost.

Sheil (2002) claims “that the cost to the public of capital under privatisation is a least double… between 9 and 16 per cent”, instead of the government rate of less than 4 per cent. Burrow (2002) also supports this claim as the private sector charge the long term bond rate plus 5 percent, plus margins and a long list of fees.

Governments also face issues when deciding upon a PPP route. In dealing with the private sector government must possess the necessary in-house experience and expertise to successfully negotiate PPP arrangements (NSW Parliament 2006b). This was particularly evident in the failed PPP called the Oasis project between the NSW Liverpool City Council and a private consortium.

“The dilemma for the public sector when deciding upon a PPP is whether it is a procurement device that is either intended to avoid public sector expenditure controls, or intended for the provision of services that can bring about risk transfer and yield value-for-money” (Robinson et al 2000, pp.26).
3.7.2 Project control lost to private sector

Burrow’s (2002) main concern as a trade unionist, is that to use a PPP is to lose control and place all decision making into the hands of the private sector with no concern other than their own. Furthermore PPPs are long term contracts entered into with the private sector of 20 plus years for ongoing operation and maintenance, which still requires commitment of public coffers that can’t otherwise be diverted to other services that may arise in the future.

Problems with PPPs...“usually fall into two categories: either the private partner can’t deliver on the contract and runs into financial problems because it’s not being paid; or sometimes it makes too much money, which earns a bad name for everyone” (Perspective 2004, para.11). PPPs when examined closely are a policy of privatisation of assets and services and not a partnership as they claim to be, according to Sheil (2002, para.11) “politicians...have scrubbed out ‘privatisation’ and replaced it with a new descriptor called ‘partnership’ and continued to advance their privatisation policies.” Sheil (2002) adds that the Australian public is against privatisation and insistent that sound governance prevail by retaining assets and services in government control.

The argument is - what are the core services government must retain responsibility for when some state PPP policies as indicated by Sheil (2002) exclude education and health services.

Criticisms have been raised about the Sydney Cross City Tunnel PPP project which became insolvent after only 16 months of operation. Several issues contributed to this event, one primary matter was the impact it imposed on the ill-consulted motoring public. The public decided to avoid patronising the tunnel so much so that less than one third of the expected revenue was being collected through tolls (NSW Parliament 2006b). This project is examined further in section 3.8.1.4.

A number of other PPPs in Australia have encountered difficulties these include the Latrobe Regional Hospital (VIC), the Robina Hospital (QLD), the Port Macquarie and Hawkesbury Hospitals (NSW) and the Sydney Airport Rail Link (Banks 2005). These projects were delivered before respective state governments had in place PPP policies. These policies have led to the private sector now only delivering ‘non-core’ services such as buildings and maintenance, and leaving governments to continue delivering core services such as clinical services in a Hospital (Banks 2005) and subsidising train fares to ensure patronage targets.

3.8 Australian PPP Market

“According to the 2001 Infrastructure Report Card prepared by Engineers Australia and other groups including the Australian Council for Infrastructure Development (AusCID now merged into Infrastructure Australia - IPA), an estimated $150 billion of additional investment is required to repair, upgrade and complete Australia’s water, energy, road and rail infrastructure. That sum alone would mean spending another one per cent of GDP annually for at least 20 years before any investment in schools, hospitals and other assets” (Poulter 2004, para.2).

Banks (2005) anticipates that such is the demand for infrastructure at local, state and federal government level in Australia that the fiscal resources of governments will be overwhelmed. “Australia has big distances between communities and relatively few people to pay for its essential infrastructure. So our governments need to spend taxpayer’s money carefully” (Perspective 2004, para.1). Ernst and Young as participants in the PPP market, find that PPPs can meet this “funding gap and the increased focus on service delivery” (Banks 2005, pp.4).

There are calls by industry peak bodies such as IPA, to increase the use of PPPs to address two fronts; to provide savings in both time and money to government and as a means to fill the identified gaps in
Evaluation of PPP procurement structures – benchmarking delivery of a large public infrastructure project.

Australia’s infrastructure needs which are currently on hold due to lack of available government funding. Historically PPPs in Australia have accounted for only 7-8 percent of total investment in public infrastructure considered a small percentage which can grow to contribute 10-15 percent of the market (Banks 2005). The Australian infrastructure market will have approximately a $400bn budget (Figure 3-5) over the next ten years according to a report by Allen Consulting (2007).

Banks (et al. 2004, pp.40) noted from their review of the Australian PPP market that “deals in social infrastructure have been predominantly finance-led, which is unusual given that the quality of the long term service is contingent on the contractor delivering the asset”.

Larocca (2004) finds the Australian experience to date is of a good track record of Private Finance in Economic Infrastructure. Several completed projects are evidence to this claim across energy, transport (toll roads) and environment (water) industry sectors, with reference to Table 3-6 industry sectors.

Australian State governments have embraced the PPP approach and in recent years have each released their own PPP policy guidelines as Sharp (2005) discussed in section 3.3. Government policies have now been utilised and ‘pathfinder’ transactions have closed or are underway leading to a mature domestic market. “In a mature PFI market the typical ex post cost of capital will be fairly close to the private sector average” according to Spackman (2002, pp. 295).

The late 1990’s has seen Australian state, territory and federal governments tentatively commit to PPPs as the project delivery structure for large infrastructure projects. The emergence of this form of project delivery is likely to gain momentum domestically as the UK has experienced since the late 1990’s with at least 50 projects now delivered annually through a PPP structure in the UK (Operis Group 2003). Australia can look forward to claiming at least 4 PPP projects delivered annually, based on Table 3-4 from the late 1990’s. Table 3-4 is based on figures from the National PPP forum in 2005 updated from various sources. An examination of current PPP projects in Australia by industry is summarised in Table 3-5 from various market sources. A major concise list is the ‘PPP Project Pipeline’ produced for the National PPP Forum. A full project listing by state and industry category is provided in Table 3-8 and Table 3-9 for VIC, ACT/Federal, NSW, SA and QLD, TAS, NT, WA respectively.

PPP projects in Australia continue to grow with an estimated value of $20 billion completed to date (2005). This includes more than $4 billion worth of PPP projects in the national economy and over $6 billion worth of projects currently under consideration, according to the NSW Finance Minister (Costa 2005, National PPP Forum 2005).

According to Larocca (2004) from Australian PPP projects completed, the typical transaction size has been $50 million to $200 million with a total potential in excess of $10 billion. More recently from the research to compile the data in Table 3-8 and Table 3-9, the value of PPPs completed in Australia has reached nearly $20 billion with approximately 50 projects contracted at an average value of nearly $400 million.

A bi-annual PPP forum is now held by federal and state bodies to provide a national focus for PPP delivery, given the importance of this market to the nations economy and infrastructure requirements.

Larocca quotes (2004, pp.12) “An Unusual Market: our primary concern is that the services continue to be delivered year after year. We need strong and competent long-term operators for PPPs to be successful. John Pierce – Secretary of NSW Treasury”. The reason the Australian market has developed under an investment bank led approach is because no mandate exists in Australia, unlike the UK, for a long-term financial commitment from the long-term service provider (Banks 2005). The major equity players in the Australian market are provided in Table 3-7 with the largest being the investment banks for the
aforementioned reasons. Advisors and consultants are not provided as they do not take an equity position in projects.

Table 3-4 Australian PPP Projects Contracted and Forecast

<table>
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<tr>
<th></th>
<th></th>
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<tbody>
<tr>
<td>VIC</td>
<td>17</td>
<td>5</td>
<td>22</td>
</tr>
<tr>
<td>NSW</td>
<td>18</td>
<td></td>
<td>18</td>
</tr>
<tr>
<td>QLD</td>
<td>2</td>
<td>6</td>
<td>8</td>
</tr>
<tr>
<td>SA</td>
<td>1</td>
<td>5</td>
<td>6</td>
</tr>
<tr>
<td>WA</td>
<td>6</td>
<td>2</td>
<td>8</td>
</tr>
<tr>
<td>NT</td>
<td>2</td>
<td>-</td>
<td>2</td>
</tr>
<tr>
<td>TAS</td>
<td>1</td>
<td>-</td>
<td>1</td>
</tr>
<tr>
<td>ACT / Federal</td>
<td>3</td>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>Total</td>
<td>50</td>
<td>19</td>
<td>69</td>
</tr>
</tbody>
</table>

Figure 3-5 Forecast Government Spending on National Infrastructure Projects
(Source: Construction Forecasting Council 2008)
Table 3-5 Australian PPP Projects Contracted by State and Industry Sector

<table>
<thead>
<tr>
<th>Industry Sector #</th>
<th>VIC</th>
<th>ACT / Federal</th>
<th>NSW</th>
<th>SA</th>
<th>QLD</th>
<th>TAS</th>
<th>NT</th>
<th>WA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>10</td>
<td>7</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>1</td>
<td>5</td>
<td>26</td>
<td></td>
</tr>
<tr>
<td>Energy</td>
<td>2</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td>5</td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td></td>
<td>6</td>
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</tr>
<tr>
<td>Transport</td>
<td>2</td>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td>1</td>
<td></td>
<td>11</td>
<td></td>
</tr>
<tr>
<td>Defence</td>
<td>3</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>3</td>
<td></td>
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<tr>
<td>Total</td>
<td>17</td>
<td>3</td>
<td>18</td>
<td>1</td>
<td>2</td>
<td>1</td>
<td>2</td>
<td>6</td>
<td>50</td>
</tr>
</tbody>
</table>

# - Refer Table 3-6 for description of industry sector coverage

Table 3-6 Description of Industry Sector Categories for PPP Projects

<table>
<thead>
<tr>
<th>Industry Sector #</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>Healthcare, Corrective Services, Public Order &amp; Safety, Education, Recreation and Culture (incl. residential housing and public spaces such as marinas)</td>
</tr>
<tr>
<td>Energy</td>
<td>Power Generation and Transmission</td>
</tr>
<tr>
<td>Environment</td>
<td>Water and Sewerage Infrastructure</td>
</tr>
<tr>
<td>Transport</td>
<td>Port, Airport, Road and Rail Infrastructure</td>
</tr>
<tr>
<td>Defence</td>
<td>R&amp;D, IP development, Materiel Procurement (Aircraft etc), Capital Development</td>
</tr>
</tbody>
</table>

# - summarised form each state / territory major project industry sectors

Table 3-7 Australian PPP Market Major Players (Banks 2005)

**Investment-Bank Led** *Focused on front-end fees, exits and arbitrage opp's*
- ABN AMRO
- Macquarie Bank
- Deutsche Bank
- Westpac
- Babcock & Brown

**Contractor Led** *Focused on construction contract, developing FM capability*
- Leighton
- Transfield
- John Holland
- Multiplex

**Long Term Service Led** *Focused on long-term / FM service delivery*
- Bilfinger Berger Concessions
- Transurban
- Spotless
- Plenary Group
According to Larocca (2004) the Australian PPP Market has had a steady stream of transactions with now a greater focus on streamlining bid processes and reshaping of consortia. However the private sector has complained about the expensive and drawn-out tender processes associated with PPPs. Bidding costs can account for 2-3 percent of the value of the project (Allen Consulting 2007).

“It is hoped that recent steps towards homogeneity throughout Australia, including a standardised approach to contracts, will continue. Such homogeneity will bring significant cost savings to all PPP participants and stakeholders” (Sharp 2005, pp.20).

Recent trends in the Australian PPP Market according to Larocca (2004) and Banks (2005) include:
- Movement away from investment bank-led model
- Introduction of property elements
- Reduction in bidding consortia
- Contract and bidding standardisation
- Development of an equity market, albeit slowly
- Competition for funding – bank and capital markets
- Development of discrete asset classes – toll roads, social infrastructure
Table 3-8 VIC, ACT / Federal, NSW and SA PPP Project Details

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Recent PPP Project Examples – Operational Year &amp; Capital Value*</th>
<th>VIC</th>
<th>ACT / Federal</th>
<th>NSW</th>
<th>SA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Casey Community Hospital, Berwick</td>
<td>$120m 2004</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melbourne Showgrounds</td>
<td>$108m 2006</td>
<td></td>
<td></td>
<td></td>
<td>Shaded = Contracted</td>
</tr>
<tr>
<td>PPP Construction Started</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>County Court</td>
<td>$140m 2002</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Film and TV Studios</td>
<td>$40m 2004</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Correctional Facilities</td>
<td>$275m 2005</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Emergency Alerting System</td>
<td>$100m 2004-2011</td>
<td></td>
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<tr>
<td>Royal Women’s Hospital Redevelopment</td>
<td>$584m 2008</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Medical Research Facility</td>
<td>$230m 2010</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Mobile Data Network</td>
<td>$140m 2003</td>
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<td></td>
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<tr>
<td>Mobile Metropolitan Radio</td>
<td>$120m 2004</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Schools PPP 2010</td>
<td></td>
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<td></td>
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<tr>
<td>Melbourne Convention &amp; Exhibition Centre (MCEC)</td>
<td>$1.4bn 2009</td>
<td></td>
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<tr>
<td>Melbourne Wholesale Market Redevelopment 2010</td>
<td></td>
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<tr>
<td>Energy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Eraring Energy Upgrades</td>
<td>$136m Start 2003</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NewGen Uranquinty Power Station</td>
<td>$450m 2009</td>
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</table>

Table continues over leaf..
<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Recent PPP Project Examples – Operational Year &amp; Capital Value (continued)</th>
<th>Shaded = Contracted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VIC</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environment</td>
<td>Ballarat North Water Reclamation (DBO) $30m Dates 2008</td>
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<tr>
<td></td>
<td>Echuca Rochester WTP $40m 2005</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enviro Altona $15m</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Wodonga WTP Upgrade $32m 2003</td>
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</tr>
<tr>
<td></td>
<td>Wyonga Water -</td>
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<td></td>
<td>Gippsland Desalination Plant $3.1bn 2011</td>
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<td>Barwon Water Bio-Solids $77.6m Dates 2007</td>
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<tr>
<td><strong>ACT / Federal</strong></td>
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<tr>
<td>Environment</td>
<td>Alternative Waste Technology Facility $70m 2004</td>
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<td>Adelaide Desalination $3bn 2012</td>
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<td>Transport</td>
<td>Eastlink Frankston-Mitcham 2008 $2.5b</td>
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<tr>
<td></td>
<td>Southern Cross Station $405m 2006</td>
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</tr>
<tr>
<td></td>
<td>Sydney Airport Rail Line 2000 $900m</td>
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</tr>
<tr>
<td></td>
<td>Lane Cove Tunnel 2007 $1.5b</td>
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</tr>
<tr>
<td></td>
<td>Western Sydney Orbital (M7) $1.28bn 2006</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Chatswood Transport Exchange $157m 2008</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cross City Tunnel $680m Dates 2005</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Newcastle Multi-purpose container terminal $250m 2004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>RailCorp Rolling Stock $1.5bn $4bn Dates 2007-2037 yrs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Parramatta Transport Exchange $100m 2005</td>
<td></td>
</tr>
<tr>
<td>Defence</td>
<td>Defence HQJOIC $300m Dates 2008</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mulwala Munitions Factory Redevelopment $300m 2009</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single LEAP Precinct $800m 2008</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Single LEAP2 Precinct $800m 2011/12</td>
<td></td>
</tr>
<tr>
<td><strong>NSW</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>SA</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Table 3-9 QLD, TAS, NT and WA PPP Project Details

<table>
<thead>
<tr>
<th>Industry Sector</th>
<th>Recent PPP Project Examples – Operational Year &amp; Capital Value</th>
<th>Shaded = Contracted</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>South Bank TAFE $550m 2008</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Risdon Prison $90m 2006</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Darwin Convention &amp; Exhibition Centre (DCEC) 2008 $1.1bn</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Perth CBD Courts $195m 2007</td>
<td></td>
</tr>
<tr>
<td></td>
<td>New Queensland Drivers License $1bn 2008-2010</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Project Vista [Broadband] -</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Gold Coast Marine Development Project $235m 2012</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Energy</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>BRAEMAR POWER STATION JANDOWAE $340m 2006</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Environment</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Townsville Recycled Water Scheme -</td>
<td></td>
</tr>
<tr>
<td><strong>Transport</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>North-South Bypass Tunnel $3.2bn 2012</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Adelaide to Darwin Railway 2003 $1.3bn</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Townsville Ocean Terminal $1bn 2009</td>
<td></td>
</tr>
<tr>
<td><strong>Defence</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 3.8.1 Review of Australian Projects

A review of Australian PPP project examples from each Industry Sector is summarised in Table 3-5. This is intended to provide more background for comparison of scope, cost, structure and timeframes for PPPs used in Australia at the time of this research.

#### 3.8.1.1 Social

The spotlight on Victoria’s PPP projects delivered to-date has been on providing social infrastructure through the contracting of six projects to-date (Table 3-8). With the subcategory of healthcare the main focus in Victoria (Banks 2005).
A recent project which is more analogous to the Case Study project examined in section 5 and 6, is the Melbourne Convention Centre development (VIC) and the Gold Coast Marine Development (QLD).

The Melbourne Convention Centre Development project was awarded to the Multiplex/Plenary consortium in February 2006 after a 14 month financial close period and is due for completion in 2009. The Victorian Major project’s web page boasts that, the “...$1bn redevelopment of the lower Yarra’s southern banks includes:

- a 5,000 seat, six-star energy rated Convention Centre
- a five star Hilton Hotel
- an office and residential tower
- a riverfront promenade of shops, cafes, bookstores and tourism retail
- a premium brand homemaker retail complex, and
- an investment in public spaces including a partnership with the National Trust for a revitalised maritime precinct.” (Major Projects 2008, para.12)

The concession period is for 25 years and will cost the state government $519m in total (Department of Infrastructure VIC 2007). Annual availability payments would then be in the order of $4.24m per annum after the $413m contribution is deducted from the total contribution cost.

The Victorian government is contributing $370m and the Melbourne City Council $43m to support funding of the public spaces as part of the precinct. This development is Australia’s largest and greenest (six-star) convention and exhibition complex (Victoria Major Projects 2008).

The Gold Coast Marine Development Project in Queensland with an estimated capital value of $235m (Table 3-9) has not yet been awarded to a private sector partner. The Queensland Government is currently seeking private sector parties to offer services to plan, design, construct, finance, operate and maintain the project. The objectives of the project according to the state government, is to strengthen the tourism industry and to improve both accommodation for pleasure craft and public amenity. Government is currently in the stage of accessing EoI’s received from private sector consortia after closing on 2 November 2007. The government will then select a shortlist (of minimum three proponents) of to provide detailed proposals (closing June 2008) in order to then select a preferred proponent in late 2008 – allowing less than six months for financial close. According to the Government EoI documents (Department of Infrastructure QLD 2007), the vision for the development at the Gold Coast spit site adjacent to Sea World includes;

- A marina for super yachts, recreational and fishing vessels
- Integrated development (tourism)
- Aboriginal cultural centre, and
- Enhanced public recreational facilities.

The EoI documents state that the Queensland Government is seeking the project to be carried out at no cost and no risk to the state on the other hand the private sector is to provide a commercial return to the state (Department of Infrastructure QLD 2007).

According to Infrastructure Partnerships Australia (IPA), Australia suffers from both a shortage and quality in affordable housing stock (IPA 2007). Yet only luxury accommodation such as
the Darwin Waterfront and Gold Coast Marine developments (Table 3-9) are to be delivered as or part of a PPP project.

3.8.1.2 Energy
As the most recent energy sector PPP and one to come out of Western Australia, the NewGen Power Kwinana power station project is examined. This power station is due for completion in 2008 at a capital cost of $400m (Table 3-9). Babcock & Brown as the lead financiers for the deal in joint partnership with an energy solution specialist ERM power, reached financial close on this 320MW base load power station in July 2006 (NewGen Power 2007).

The NewGen Power Kwinana Power Station is to be a high efficiency, gas-fired, combined-cycle power station under construction at Kwinana south of Perth. The site is adjacent to Western Power’s Cockburn Power Station and will provide power into the South-West Interconnected System (Bacbock & Brown 2006).

The Western Australian energy market has been restructured through reform which the government saw “...competition as a means to encourage lower energy prices, and improved customer service” (Intersector 2006, para.8).

NewGen Power also operates two similar gas-fired power stations in South-East Queensland at Braemar and Oakey, and are in negotiations for a fourth power station at Uranquinty, near Wagga Wagga in New South Wales (NewGen Power 2007).

3.8.1.3 Environment
Victoria is also well ahead figuratively speaking, in contracting environmental PPP projects (Table 3-8). The majority of these projects have been in water supply and treatment infrastructure (Table 3-8) involving partnerships with regional water authorities, the state government and the private sector.

The Central Highlands Region, North Ballart Water Reclamation Project (VIC) with a capital value of $30m (Table 3-8) became operational in January 2008. Contract execution was achieved with the preferred bidder United Water Utilities, in May 2006. The project was established using the Partnerships Victoria framework for private sector involvement, engaged under a design, build and operate (DBO) contract, without private finance. This project involves a 15 year operational period of the newly constructed plant, which will upgrade the existing waste-water treatment facility (Partnerships Victoria 2008).

In 2003 an EoI was put to the market for a Design, Build, Finance and Operate contract of two wastewater treatment plants in the Ballarat region. However this process was ended after negotiations with the preferred bidder failed (Infrastructure Partnerships Australia 2006).

3.8.1.4 Transport
Transport PPPs have been the focus of the NSW government comprising three vehicle expressways and three rail infrastructure projects. This total of six PPP transport projects, each in excess of $500m, have been delivered in NSW (Table 3-5, Table 3-8) leading the Australian market. That was until the turmoil of the Cross City Tunnel project in 2006. This project caused the government to review its PPP procurement processes in line with world’s best practice (NSW Parliament 2006b) by convening a joint select committee. This project is examined further as to why it has suffered such public criticism.
The Cross City Tunnel was open to traffic on 28 August 2005 after a 2 year construction period. The Cross City Motorway consortium named as preferred was involved in financial close negotiations from February 2002 to December 2002 (a 10 month period) when the contract was executed and construction began. The Cross City Motorway consortium designed, built, financed and operated (DBFO) the tunnel for a contract sum of $680m and a concession period of 30 years. The project comprises two separate tunnels 2.1km long run east-west under Sydney’s CBD linking Darling Harbour and Kings Cross and surface works comprising traffic calming measures to roads made less frequented by using the tunnel (NSW Parliament 2006b). The demand risk in the form of public patronage of the tunnel through payment of tolls was borne by the private sector concessionaire. In exchange for passing this risk on, the government allowed localised road closures to be made and constructed to funnel vehicles into the tunnel. Had this been a traditional government procured project the situation of insolvency of the concessionaire would have not be borne by the private sector but be a problem of government (NSW Parliament 2006a).

The initial project intention of ‘nil cost to government’ was of overriding importance during value for money negotiations that the paying public was not adequately considered. The original toll advertised by government was planned at $2.00 per car (1998) and the project valued at $273m. When the private sector provided detailed bids for the contract the toll increased to $2.50, however prior to opening increased to $2.65 after negotiating with the RTA for additional works (NSW Parliament 2006a). During the financial close negotiations an upfront payment from the consortium to the government Roads & Traffic Authority (RTA) for $96m was deemed necessary (NSW Parliament 2006a, 2006b).

To summarise the findings from the joint select committee this following quote is used. “The anger and frustration of the community that has been expressed since the tunnel opened in August 2005 and was very clearly expressed during the Committee’s inquiry, is a result of this funnelling and a lack of direct, toll-free alternative routes” (NSW Parliament 2006a, pp xvi).

### 3.8.1.5 Defence

The Headquarters Joint Operations Command (HQJOC) project was the first significant Commonwealth PPP and has recently been placed in operation after construction was completed in July 2008. The series of ‘LEAP’ projects to provide Defence force personnel with greater numbers of on base accommodation around Australia followed in quick succession to the HQJOC project (Table 3-8). This was likely due to the successful outcomes achieved with HQJOC and also providing Defence with the exposure to the PPP procurement process.

HQJOC is a facility that provides the Department of Defence with a single command post for joint army, navy and air force military campaigns, operations and other designated activities. The facility is located near Bungendore, NSW on the outskirts of Queanbeyan (Department of Defence 2007).

The Department of Defence went through a four stage process to reach financial close with other key timeframes produced in Table 3-10.
Table 3-10 HQJOC Project Details (Department of Defence 2007 and Praeco 2006)

<table>
<thead>
<tr>
<th>Stage</th>
<th>Timeframe</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.  RoI process commenced</td>
<td>April 2004</td>
</tr>
<tr>
<td>2.  Shortlist for Detailed Proposals</td>
<td>September 2004</td>
</tr>
<tr>
<td>Tenders for Detailed Proposals Closed</td>
<td>February 2005</td>
</tr>
<tr>
<td>3.  Selection of Preferred Proponent</td>
<td>30 May 2006</td>
</tr>
<tr>
<td>Financial Close</td>
<td>28 July 2006</td>
</tr>
<tr>
<td>Construction Start</td>
<td>November 2006</td>
</tr>
<tr>
<td>Operational</td>
<td>July 2008</td>
</tr>
<tr>
<td>Capital Value</td>
<td>$300 million</td>
</tr>
<tr>
<td>Concession Period</td>
<td>30 years (to 2036)</td>
</tr>
<tr>
<td>Cost to Government (total incl. Annual Service Payments)</td>
<td>$572.2 million (NPV 2006-07)</td>
</tr>
</tbody>
</table>

Three consortia were selected to provide a detailed proposal, with Praeco selected as the preferred after a significant period of over 14 months for Defence to evaluate tenders. One of the three consortia withdrew from the tender process in November 2005 which may have contributed to the delay by the government. The Praeco consortium was contracted to design, construct, operate and maintain the facilities. Praeco Pty Limited consortium is made up of partners from Leighton Contractors and ABN-AMRO, with key services provided by Spotless (operations and maintenance) and Rice Daubney (architects) to provide a five-star greenhouse rating (Praeco 2006 and Department of Defence 2007).

Few measures are available to ascertain what Defence considers as achieving VfM, as the projects are not in the public realm nor under the same level of scrutiny and rely on Defence themselves to disclose its assessment of VfM. A hold point for Commonwealth projects over the value of $15m is the Public Works Committee (PWC). The PWC reviews the cost-effectiveness of the project among many other terms of reference prior to public tender.

The PWC report (Parliament of Australia 2004) for HQJOC was informed that selection of a PPP procurement route was the outcome of a business case and a capital cost estimate (made in 2003-04) which is still quoted to this day. The ongoing thirty year operational and maintenance cost which is valued at $39.99 million for the first year (Department of Defence 2007) is not considered or reviewed in the PWC report. Furthermore the business case identifies PPPs provide Defence with a timely delivery yet the anticipated dates quoted in the PWC report where delayed by at least 12 months compared to Table 3-10.

The first LEAP project PWC report (Parliament of Australia 2006) was informed that the PSC was the means for ensuring that the Commonwealth received value for money by comparison with incoming tenders. In contrast Section 3.4 finds a VfM assessment is more complex than a straight one dimensional comparison. Defence therefore continues to use these projects as pathfinders in establishing and refining its own guidelines for PPP procurement.

The literature review supports the development of a benchmarking criteria model which presents the design attributes and variables, and actions and outcomes that influence PPP projects. This criterion is presented in Table 2-1 and shall be compared in proceeding sections with the case study observations to yield the research findings. The following section provides an insight into the research methodology prior to the presentation of the case study project observations.
4. METHODOLOGY

Before presenting and evaluating the case study in the proceeding sections, the methodology supporting this approach is outlined and discussed in this section.

Examination of the PPP literature found a theme of secondary issues of shortcomings and benefits with current industry practice, these are addressed in the proceeding sections. As presented earlier through the literature review of section 3, benchmark criteria of accepted PPP practice was modelled from this process.

4.1 Approach

Observations were recorded throughout the entire procurement process of the Darwin City Waterfront (DCW) PPP project and this case study is presented to demonstrate Australian PPP practice in section 5.

These observations provide witness to a successful private consortium PPP bid spanning nearly two years. The case study observation timeframe involved the following procurement or pre-construction milestone stages of a PPP project;

i) Expression of interest (EoI)
ii) Call for Detailed Proposals (CDP) or bid phase,
iii) Request for Detailed Further Offers (DFO) or Best and Final Offers (BAFO) and
iv) Financial Close, leading to contract award.

The financial close stage signifies the commencement of the delivery phase of the project involving detailed design and construction.

This project was awarded by the Northern Territory Government (NTG) in May 2005 at the conclusion of the financial close process to the ABN-AMRO led Darwin Cove Consortium.

Observations have been made by a member of the consortium technical advisor team (Connell Wagner P/L). Much of the commentary presented in the case study identifies the technical and engineering risk issues as opposed to financial matters of a PPP negotiation and bid process.

In section 6 comparative analyses of the benchmark criteria with the project case study observations provides an evaluation of Australian practice.

The discussion of the results in section 7 responds to the research objectives and questions surrounding the use of PPPs and draws conclusions through an argued case to support the recommendations to improve PPP delivery.

Conclusion of the case study, analysis and discussion of the results presented in section 8 is considered the extension to the current body of knowledge.

4.2 Rational for a Case Study Presentation

A case study approach was selected as it provides a current insight into the local market situation in Australia using industry based observations from participation in procurement of a PPP project.

A case study approach is needed when the measuring of relevant variables is complex and labour-intensive, which makes large scale surveys impracticable (De Looff 1995). Private consortium participant observations have been presented through the case study project. Reflection of such data with the known body of knowledge presented in the literature review provides the fundamental grounding for composition of a
suitable PPP delivery model for specific large infrastructure projects. Case study research is useful as a means of explaining contemporary activities such as sourcing decisions within a real-life context where no control of independent variables is possible, which makes experiment research indefensible (Yin 1994).

The limitation of participant observations is that the results focus on a situation and not its causes, presenting only the process. This approach provides little insight into the pit falls or issues of the subject matter observed.

As no interviews or questionnaire was attempted, the findings of this research are neither tested nor validated and present only the view of the observer.

PPP projects run for lengthy durations including the concession period usually of 20-25 years. So it is not possible to fully assess the success of the case study project as it was beyond the research timeframe. The research therefore does not measure the success of the project through completion, operation and turning a profit, including public use sentiment, which can not be gauged to provide a true evidence of maturity.

The results of this research focus on the background facts providing the ‘what’ not ‘how’ perspectives of the case study project, this will provide an insight into the phenomenon of PPP projects.

The outcome of this research provides recommendations for the benchmark criteria for PPP procurement based on the observed case study project to improve outcomes generated by a PPP project. These key recommendations can be a starting point for further examination by other research.

4.3 Data Gathering

Qualitative data was gathered from participant observations and involvement in the DCW project as a technical advisor to the private consortium. Similar data is not widely available because:

- Less than four PPP projects per year nationally are on the market at one time
- These projects typically have a duration of 2-3 years before commencement of construction
- Many consortiums bid for these projects, however only one is successful
- Commercial in confidence nature of the arrangement restricts the availability to the public detailed information of the contract structure and concession

PPPs by nature are unique in Australia as they infrequently transpire. Placing on the record the way in which these projects function by presenting the ‘what’ of PPP projects is valuable knowledge to private and public interests alike.

To secure a role in a PPP project requires:

- Such a project to be on the market
- The participant to be part of the consortia bidding for the project
- The consortia to be short listed for a detailed proposal submission
- The consortia be selected in a negotiation phase and successful in the contract award
- Participate in project delivery

The case study used in this research was the $1.1b Darwin City Waterfront (DCW) Development project located in the Northern Territory of Australia. The Northern Territory Government (NTG) delivered this project under a PPP structure following the Territory Partnerships guidelines. The project comprised the BOOT delivery of a Convention and Exhibition Centre as the key centre piece of the redevelopment.

The case study is confined to the development of the successful consortium’s bid into a detailed proposal and financial close process of the DCW project.
According to Yin (1994), multiple sources of evidence can be used to facilitate the process of triangulation to improve both reliability and validity of case study findings. This was achieved through use of personal journals, meeting minutes, technical reports, memos, emails etc in development of the case study observations and qualitative data to test against the literature review findings. Relevant topical items from these sources were extracted and placed into a chronological order to present the case study.

4.4 Processing and Analysis of the Case Study
The comparisons made in section 6 - Analysis of Case Study address the research objectives and questions from the theme of secondary issues of shortcomings and benefits with current industry practice presented in section 3. Evaluation of Australian practice (case study) with the benchmark criteria / world-wide best-practice gives rise to results in the form of recommendations for the design and outcomes of PPPs.

4.5 Discussion and Conclusions
An argued case to support the findings was presented in section 7. This original contribution forms the conclusions reached from this research and provides an extension to the presented body of knowledge into the research area.

A matrix was used to present the research findings and identified a recommended approach and structure. The recommendations draw upon the observed case study deficiencies and areas for improvement identified in the literature review to enhance the delivery of PPP projects.

In section 8, the research is concluded through restating the purpose and objectives together with a summary of the recommendations and accompanying discussion.

The case study is presented in the following section.
5. PRESENTATION OF CASE STUDY

A case study in the form of participant observations of the Darwin City Waterfront Project, are presented in this section in a chronological form. These observations are considered to demonstrate the typical Australian practice into PPP project delivery. The completion of the case study allows this research to be used to evaluate Australian practice against the benchmark model established from the literature review (provided in Table 2-1).

The observations provide witness to the private consortium bid spanning from August 2003 to May 2005. Within this period the following pre-construction procurement milestone stages of the project were observed.

1. Expression of interest (EoI)
2. Call for Detailed Proposals (CDP) or bid phase
3. Request for Detailed Further Offers (DFO) or Best and Final Offers (BAFO) and
4. Financial Close, leading to contract award

After financial close was achieved the project entered the construction delivery phase in which the detailed design is finalised such that construction can be undertaken. This phase however was outside of the observation results presented.

Background to the project development site was presented to provide the context leading up to the NT government’s decision to redevelop the site using a PPP procurement approach.

To assist the reader identify the procurement stage referenced through the observations made in this section, Figure 5-1 is presented at the start of each section with a (red arrow) pointer marking the applicable reference point in the procurement continuum of which the text refers.

![Figure 5-1 DCW Project Procurement Continuum](not to scale and no time marker red arrow indicated)

5.1 Chronology of key events relating to the Darwin City Waterfront

A chronology has been drawn from a number of sources including key documents, media reports and web sites. It is intended to provide an overview of the important stages in the history of the Darwin City Waterfront project.
Table 5-1 DCW Project Chronology of Key Events

<table>
<thead>
<tr>
<th>Date</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1988-1995</td>
<td>Wharf Precinct launched as public space by the Northern Territory Government (NTG)</td>
</tr>
<tr>
<td>1999</td>
<td>Central Darwin Land Use Objectives released by the NTG (Country Liberal Party – CLP) including details for the Darwin Wharf Precinct redevelopment</td>
</tr>
<tr>
<td>2001</td>
<td>NTG Economic Summit endorses the redevelopment of the Darwin Wharf Precinct blueprint</td>
</tr>
<tr>
<td>August 2001</td>
<td>Martin Labor Government wins Office in Northern Territory defeating the CLP after 26 years in power from 1978</td>
</tr>
<tr>
<td>2003</td>
<td>BIS Shrapnel’s Engineering Construction Report 2002-2017 forecasts a Convention and Exhibition Centre as a major project for the NT</td>
</tr>
<tr>
<td>13 August 2003</td>
<td>Northern Territory Chief Minister launches Darwin City Waterfront (DCW) - a major CBD redevelopment project</td>
</tr>
<tr>
<td>September 2003</td>
<td>Expressions of Interest (EoI) advertised for private sector consortiums to register for involvement</td>
</tr>
<tr>
<td></td>
<td>NTG public consultation process commenced</td>
</tr>
<tr>
<td></td>
<td>Notice of Intent issued for the development by the NTG</td>
</tr>
<tr>
<td>5 September 2003</td>
<td>EoI documents issued by NTG to private sector registrants</td>
</tr>
<tr>
<td>October 2003</td>
<td>20th - EoI period ends</td>
</tr>
<tr>
<td></td>
<td>Minister for Environment and Heritage, determined that and Environmental Impact Statement (EIS) was required for the project</td>
</tr>
<tr>
<td>November 2003</td>
<td>Environment Protection and Biodiversity Conservation Act 1999 application by the NTG, was made to the Commonwealth Government which determined that an assessment was not required</td>
</tr>
<tr>
<td>19 December 2003</td>
<td>Three short listed proponents announced to prepare detailed submissions</td>
</tr>
<tr>
<td>14 January 2004</td>
<td>Detailed Proposal Documents issued by NTG to short listed proponents - commencement of Bid Phase</td>
</tr>
<tr>
<td>January 2004</td>
<td>Community consultation period undertaken to identify elements for incorporated into Wharf Precinct Redevelopment</td>
</tr>
<tr>
<td>4 February 2004</td>
<td>First Darwin Cove Consortium team meeting in Darwin</td>
</tr>
<tr>
<td></td>
<td>NTG project briefing held in Darwin for all proponents</td>
</tr>
<tr>
<td>May 2004</td>
<td>12th - Call for Detailed Proposals Closes – Bid phase documents submitted to NTG by three proponents.</td>
</tr>
<tr>
<td></td>
<td>Draft EIS documents completed by NTG’s consultant URS</td>
</tr>
<tr>
<td></td>
<td>17th - Draft Environmental Impact Statement (EIS) released by NTG with 28 days for public comment</td>
</tr>
<tr>
<td>July 2004</td>
<td>9th - Darwin Cove Consortium (DCC) present detailed proposal and outline of bid documents to NTG in Darwin</td>
</tr>
<tr>
<td></td>
<td>12th - Conclusion of NTG public consultation process</td>
</tr>
<tr>
<td></td>
<td>Supplement to Draft EIS Completed by URS, incorporating issues raised by Government Agencies and the Public</td>
</tr>
<tr>
<td>August 2004</td>
<td>Detailed backroom negotiations ongoing with DCC and NTG</td>
</tr>
<tr>
<td></td>
<td>Office of Environment and Heritage (OEH) releases Environmental Assessment Report (EAR) for ministerial consideration</td>
</tr>
<tr>
<td>6 September 2004</td>
<td>NTG Environment Minister approves Environmental Impact Statement (EIS) for DCW redevelopment</td>
</tr>
<tr>
<td>17 September</td>
<td>Darwin Cove Consortium announced by NTG as preferred proponent –</td>
</tr>
<tr>
<td>Date</td>
<td>Event</td>
</tr>
<tr>
<td>------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>2004</td>
<td>commencement of Financial Close Phase</td>
</tr>
<tr>
<td>November 2004</td>
<td>Development Applications (DA) lodged to Development Consent Authority (DCA) for civil and marine works and convention centre (CI, MI and DCEC works respectively)</td>
</tr>
<tr>
<td>8 December 2004</td>
<td>DCA hold hearing on amendments to 1999 planning scheme to adopt private consortium master plan for DCW redevelopment</td>
</tr>
<tr>
<td>January 2005</td>
<td>DCA approves planning amendment to Wharf Precinct</td>
</tr>
<tr>
<td>February 2005</td>
<td>DCA hold hearing into DCW Development Applications lodged (November 2004)</td>
</tr>
<tr>
<td>9 March 2005</td>
<td>DCA issues DA permit conditions required to commence construction works.</td>
</tr>
<tr>
<td>9 May 2005</td>
<td>NTG and DCC sign Project Development Agreement and Financial Close achieved.</td>
</tr>
<tr>
<td>October 2005</td>
<td>Construction of Stage 1 starts for civil earthworks</td>
</tr>
<tr>
<td>April 2006</td>
<td>Construction starts on foundations for Convention Centre</td>
</tr>
<tr>
<td>June 2006</td>
<td>DCW &quot;Highly Commended&quot; award in Best Global Project to Reach Financial Close category at the Public Private Finance annual awards</td>
</tr>
<tr>
<td>3 September 2006</td>
<td>$70m of Stage 1 apartments sold to the public</td>
</tr>
<tr>
<td>22 February 2007</td>
<td>Auditor-General's report tabled in NT parliament supporting the way the DCW project is being managed</td>
</tr>
<tr>
<td>Early 2008</td>
<td>Darwin Convention and Exhibition Centre (DCEC) due to open</td>
</tr>
<tr>
<td>May 2008</td>
<td>Community infrastructure works comprising Public Domain and Wave Pool facilities due to open</td>
</tr>
<tr>
<td>Late 2008</td>
<td>Wharf One Residential apartments due for completion</td>
</tr>
<tr>
<td>2009</td>
<td>Hospitality Precinct due to open comprising hotels and commercial tenancies</td>
</tr>
<tr>
<td>2015-2020</td>
<td>Completion of remaining development of DCW site comprising residential apartments and commercial tenancies</td>
</tr>
<tr>
<td>2033</td>
<td>End of DCEC concession period (25 years) and hand over to government</td>
</tr>
</tbody>
</table>

5.2 Introduction

The Chief Minister for the NT Government publicly launched the Darwin City Waterfront redevelopment project in August 2003. This major CBD project includes a Convention and Exhibition Centre as the key centre piece. The NTG would go to the market calling for Expressions of Interest from the private sector for redevelopment of this CBD precinct in accordance with an agreed waterfront master plan.

The $1.1b Darwin City Waterfront Development is the project case study for this research. This project includes appropriate project components to be delivered under a Public Private-Partnership (PPP) structure by the (Northern) Territory Government. In the government’s vision for the site and to complement the Convention and Exhibition Centre as the key focal point of this development, the future tourism needs of the city have been considered requiring the master plan to include appropriate accommodation by way of serviced apartments and possibly a hotel. The development is to include some restaurants, cafes and other such facilities. To realise the full build out of the 25 ha of the site a residential component to capitalise on this outstanding waterfront site whilst allowing full public access to the foreshore with the provision of significant public open space is necessary.

An extract from an NT government project marketing brochure pitches the project as follows:

“Jobs. Growth. Lifestyle. Three great features of the Darwin City Waterfront development. Numerous Territory engineering and construction companies have expressed their interest in working with the preferred developer on the waterfront project. It is estimated that about $250 million will be injected into the local economy during the first three years of the project, generating 1000 jobs along the way. In all, 40 per cent of the total waterfront development will be open public space. The aim is to provide something for
5.2.1 Description of the Development Site

The location and past usage of the site is outlined prior to being set aside for redevelopment. This provides insight into how diverse and prominent the site has been in supporting the growth of Darwin.

5.2.1.1 Site Location

The development site is located on the southern end of the short peninsula supporting the Darwin CBD, Northern Territory. The site is located approximately 2 km from the entrance to Darwin Harbour at the head of Frances Bay on the north-east shore of the harbour. The development site of 25 hectares includes the former Deck Chair Cinema site to the east, the former Stokes Hill Power Station site, Stokes Hill, Kitchener Bay and land occupied by industrial activities south of Kitchener Drive, including Fort Hill.

The Wharf Precinct has been used for various industrial purposes over the years and storage of many different substances has occurred on the site. The site has been used for cattle holding yards for export, bulk mineral storage and loading for export, bulk cement, bituminous products and still maintains a strategic naval provision resupply, birthing and refueling point – taking advantage of the nearby fuel storage tanks atop Stokes Hill.

It is because of these past industrial usages that the site required significant remediation and land improvement prior to redevelopment for alternative land usage.

5.2.1.2 Aboriginal History

The following paragraphs are based on extracts from the URS Corporation (2003) report.

Two aboriginal sites within or adjoining the development areas have been recorded as sacred sites. Lameroo Beach is outside of the DCW site while a buffer zone is maintained around the sacred site on Stokes Hill. DCW has been fundamentally linked to the establishment and development of Darwin and its port. The wharf area as a whole has significant historic values and has been recognised as the most historic part of central Darwin. Numerous historic heritage features occur in or near the area. Significant marine archaeological and heritage objects and sites occur within and adjacent to the project area.

5.2.1.3 European History

The following paragraphs are based on extracts from the URS Corporation (2004) EIS document.

The Darwin wharf precinct has been fundamentally linked to the establishment and development of Palmerston Town (to be renamed Darwin in the early 1900s) and its port. Port Darwin was named by John Lort Stokes in 1839 when The Beagle sailed from Port Essington. The first permanent European settlement was established at Port Darwin with the arrival of Goyder and the establishment of his camp at the base of Fort Hill on 5 February 1869. The landing of the cable from Britain for the Overland Telegraph occurred on 7 November 1871.
The Overland Telegraph inadvertently led to the discovery of gold in the region when the metal was found in a hole dug for one of the telegraph poles. The first stable jetty at the wharf area was established in 1874 with the hull of the unseaworthy \textit{Gulnare} and fill material at the eastern side of Fort Hill. The construction of the first jetty at Stokes Hill occurred in 1886, linked with the development of the railway linking Pine Creek to Port Darwin which was completed in 1888. Traffic at the wharf included construction material for the new railway, live cattle export and passengers. A cyclone in 1897 and damage from torpedo worms led to the replacement of the jetty (with the Town Jetty) in 1904.

Darwin’s strategic location was recognised with the establishment of the Navy Fuel Installation (NFI) consisting of storage tanks and piped distribution system, constructed between 1926 and 1929. The facility was expanded from four to nine tanks in 1933. The other developments in the area during the defensive build-up in the late 1930s included the following.

- a submarine boom net (which stretched from across the harbour from East Point to West Point)
- a shed to maintain the netting and buoys (‘The Boom Shed’)
- an extension of the railway line to the boom shed
- a flying boat terminal at the base of Stokes Hill

The engagement of Japan in World War II saw a major increase in shipping and other activity in Darwin Harbour. The first Japanese air raid occurred on 19 February 1942. Eight of the 47 ships in the Harbour were sunk, including the MV \textit{Neptuna}, a munitions cargo ship berthed at Stokes Hill Wharf. A total of 46 raids were made on Darwin with twenty eight (28) of these directed at the wharf area. These attacks causing widespread damage to the wharves, the NFI and other infrastructure, and significant loss of life, estimated to be between 400-500 people. The bombings killed many waterside workers, with 22 killed in the first raid alone. These and later deaths are commemorated by plaques at the base of Stokes Hill Wharf.

Oil fuel storage tunnels were constructed in the escarpment from 1943 as more secure facilities but were not used before the war ended. Stokes Hill Wharf was rebuilt in the mid 1950s and opened in 1956, with an extension completed in 1966.

The wharf area has also been a major focal point for migration to Darwin and regional areas, with all people arriving by sea prior to regular air services commencing in the 1930s.

5.2.1.4 Pre-redevelopment 1988-2004 Site Utilisation

The project site supports a range of commercial and tourism activities. These activities generate some economic and amenity benefits, however much of the area remains in a state that does not facilitate active commercial, tourism or recreational use. The project site is used by the Darwin community for a range of recreational activities focused on Stokes Hill Wharf and its surrounds. Community attitudes to the site indicate an interest in highlighting the connection between land and water, Darwin’s tropical environment and lifestyle, and the history and culture of the site. The community also indicated an interest in greater recreational opportunities for local people and visitors, greater access to the site and enhancement of the aesthetics of the site with connection to the CBD (URS 2004).

Until recently, the Darwin Wharf Precinct was a focal point for trade, communications and defence. However with the removal of the major port facilities to the East Arm Port (Stage 1 completed February 2000), much of the Wharf Precinct has become disused and semi-derelict. The project offers the opportunity to redevelop the industrial land on the fringe of the
CBD into a place of importance to the people of Darwin. It will reclaim valuable and strategically situated land into the social and economic framework of Darwin, and utilise the site for the economic and social benefit of Darwin and the Northern Territory (URS 2003).

5.2.2 Political Influence and Visions for the Site

The ownership of the Darwin Wharf Precinct has alternated between the Department of Defence in times of war and the Darwin Port Authority (now Darwin Port Corporation) in more recent times. An advisory board appointed by the (NTG) Minister for Transport and Infrastructure, advises the Port Corporation on its activities and the manner in which it carries out its activities with a trade development focus. The completion of a major new port and rail infrastructure shifts freight handling from the Fort Hill Wharf of the Darwin Wharf Precinct to the new East Arm Port, the end of the Adelaide-Darwin rail line. This has created much debate over the future alternative usage for the site, driven both by political and community needs of the time. Of equal importance in the debate of the land use were the procurement method and the involvement of the private sector.

5.2.2.1 Previous (CLP) NT Governments

According to the Darwin Research Centre (Darwin Research Centre 2005) who independently undertakes research and commentary on issues in the Northern Territory and the Asia Pacific region, the NT Chief Ministers have grappled with the Department of Defence's view of the waterfront development since Marshall Perron's (1988 – 1995) time when the Wharf Precinct was launched. Shane Stone (1995-1999) tried to stop the upgrade of the groin at Larrakeyah Naval base in preference to the Navy using the new East Arm Port facilities.

The previous government, the Country Liberal Party (CLP) led government for 26 years, since self government of the Northern Territory began in 1978, until 2001. Under the leadership of Dennis Bourke, a Central Darwin Land Use Objectives was developed in 1999 to include the wharf precinct, now referred to as the Darwin City Waterfront. The Wharf Precinct (1999) development had a primary focus for leisure and entertainment activities and included the following objectives:

- Low density, minimal residential and much open space
- One structure only allowed to exceed the escarpment
- An open and transparent plan, with community consultation
- Tax-payer owned and managed
- CBD integrated with Development
- Free and safe town beach
- A tourism and recreation precinct with a working wharf
- A wharf development that is owned by all Territorians
- Fort Hill and Stokes Hill Wharves fully integrated

The proposed structure of this project was for the government on behalf of the tax-payer to fund, own and manage the site through a traditional design-build-construct principal contract. Anecdotal reports that much of the then government's consultation for the proposed development was done through backroom consultation with a single private developer - Multiplex Constructions, which went on to bid as one of the private developers for government in 2003. This blueprint for the integrated development of the Darwin Wharf Precinct that was endorsed at the economic summit in 2001 was seen as the highest priority for infrastructure development in Darwin. This blueprint was the result of 18 months of consultation with Territorians, and it had their support as documented in the Hansard (Northern Territory 2004).
The CLP administration pre 2001, can claim the credit for the first PPP in the Territory – the Adelaide-Darwin railway project. This project was initiated and delivered in conjunction with the South Australian government. Financial close was achieved in April 2001 with the successful consortium Asia Pacific Transport Consortium (consisting of ADrail as the D&C Contractor and Freightlink as the Operator), after 3 years and 5 months of negotiations.

The project was however completed in 2003 under the (current) Labor government.

The AustralAsia Railway Corporation is a statutory body established under the **AustralAsia Railway Corporation Act 1996** and supported by South Australia through complementary legislation. The Corporation was established in 1997 by the Northern Territory and South Australian Governments to manage the awarding of a Build, Own, Operate and Transfer back (BOOT) concession and to enter into contractual arrangements with the successful consortium.

### 5.2.2.2 Current (ALP) Government

Johnson (2005) surmises that the Martin 'Labor Government' (ALP) August 2001 – November 2007, (re-elected for a second term 18 June 2005 with a swing of 6 seats) made history on August 18 2001, as the first woman and Labor leader to win an NT election. In its first term, according to Hansard (Northern Territory 2002) the ALP administration built its policies and image; pro-development, more specifically, policies for a PPP initiative referred to as ‘Territory Partnerships’ launched in March 2003. The government’s policy is based on the Victorian PPP model. Clare Martin resigned on 26 November 2007 and was replaced by the education minister, Mr Paul Henderson.

### 5.2.2.3 Territory Partnerships - Territory Policy on Public Private Partnerships

BIS Shrapnel released a report in 2003 into Engineering Construction in Australia 2002-2017 which forecast major private sector projects for the NT, including a Convention and Exhibition Centre for Darwin, tabled among twelve other developments. This presented the government with a challenge of putting on the record its views on how much and the type of infrastructure the government was willing to let pass into private hands as a means of keeping up its commitment to community needs and the tax payer.

In the past, the Northern Territory had encouraged a range of privately financed infrastructure projects, including rail, gas pipelines and electricity generation projects. The Alice Springs to Darwin Railway was a notable example of such private sector involvement. However, projects have been otherwise ad hoc and there has been a lack of policy development. Territory Partnerships provides a policy framework for building on those experiences and creating opportunities for the private sector for the efficient procurement of infrastructure and related ancillary services. Consistent with the government’s Building a Better Territory policy, the framework aims to achieve a more strategic approach to infrastructure development, with the aim of inspiring private sector confidence and securing improved services and better value for money (AAR 2003).

Two common elements to the DCW project and the Adelaide-Darwin Railway is the involvement of the Chief Minister's Major Projects Team - Office of Territory Development, with Mr Paul Tyrrell as the Chief Executive. The Department plays a key role in contributing to the
strategic directions of Government through the coordination of coherent and soundly based advice to the Chief Minister and Cabinet for major projects.

5.2.3 Vision for the DCW Re-development

The waterfront redevelopment work is to be undertaken in line with demand and is likely to be staged over a period of ten to fifteen years. Elements identified by the Territory Government (early 2003) to incorporate in the development were:

- Passive and active areas of open space to encourage a diversity of community-oriented recreation, activities and functions;
- Community uses and tourist attractions such as a visitor centre, cultural/heritage centre, and public buildings;
- A convention and exhibition centre in the central area;
- Residential ‘landmark’ development, likely to occur at either end of the precinct (near the Stokes Hill and Fort Hill areas);
- Commercial and retail activities, such as, cafes, kiosks, and the like;
- Hotel(s);
- Serviced apartments;
- Leisure craft moorings and associated marina-oriented commercial and public transport facilities;
- Focal ‘landmark’ feature;
- Raising the level of low-lying land, on which buildings are to be constructed, to RL 6.5m AHD above the storm surge level for a 0.1 % AEP, including a 0.3 m allowance for rise in sea level to take account of long term global warming;
- Construction of a revetment structure along the coast comprising armour rock, sheet piles, precast concrete retaining wall sections or similar. Alternatively a sea wall may be constructed off shore;
- Land reclamation in Kitchener Bay extending out to a maximum distance of about 150 metres off shore and requiring dredging of marine mud;
- Construction of a marina or jetties in Kitchener Bay including dredging of marine mud; and
- Minor reclamation and/or marine structures such as a jetty adjoining the western side of Fort Hill to a limit of 100 metres off shore.

The Government’s Concept Plan included plans for various existing buildings, oil storage tanks, industrial plant etc to be demolished in the near term. The original Fort Hill Wharf, Iron Ore Wharf and associated dolphins and conveyor system are likely to be demolished in the medium term.

The Concept Plan was developed by private consultants to meet the public consultation outcomes and the need for increased residential housing, whilst still providing a publicly accessible foreshore. The PWC (PricewaterhouseCoopers 2003) summary report into the benefits of a convention and exhibition centre in Darwin, found that the Wharf Precinct was the best waterfront address within the Darwin CBD. The site was found to be clearly superior across the full range of criteria. The development of the convention and exhibition centre should trigger a project of equal importance to Darwin as Darling Harbour is to Sydney. The PWC report summarised their earlier detailed report which was not considered by government as acceptable for release to the public because it contained a framework for evaluation of private sector proposals. The detailed report is considered the business case study for the project supporting the economic viability and need for a convention and exhibition centre and supportive elements at the waterfront site.
5.3 Structure of the DCW Project – EoI and Tender Process

The Expression of Interest (EoI) phase was the start of the government tender process calling for the involvement of the private sector. This was the first of four stages of which the procurement process was observed. This phase concluded with government selecting three consortia from the EoI process to go forward into the second (bid) phase to provide a detailed proposal. The EoI phase ran from 13 August 2003 to 20 October 2003.

Reference Point in Project Procurement Continuum (above)

5.3.1 EOI Phase – ‘Going to the market’

On the 13 August 2003 the NTG launched the DCW project to the market, with an Expression of Interest (EoI) document calling for capable private sector parties to register for consideration.

The key outcomes of the EoI document included the following:

- Construction of Convention Centre to start within 18 Months (by February 2005)
- 10-15 year timeframe for full project completion
- $100 million government contribution
- Probity Auditor to oversee and sanction transaction with private sector
- Contract using a PPP mechanism where appropriate for the project
- A 20-25 year concession period for the Convention Centre

The appointed private sector project team of specialists including, a project manager, lawyers, financial advisers, urban planners, engineers and marketing staff are administered by the government’s major project group.

The NTG outlines in their EoI document (NTG 2003) that there is no preferred contracting strategy for Territory Partnerships however, with respect to the Convention and Exhibition Centre element of this project a BOOT arrangement is expected. Otherwise for other project elements a flexible approach for Public Private Partnerships (PPPs) is appropriate in the Northern Territory context such that collaboration between the public and the private sectors can be structured to accommodate a variety of roles for the Government and the private sector. This can include publicly-financed partnerships and partnerships involving private financing. The Territory’s aim (for the waterfront) was to optimise risk allocation between the partners by assigning risk to whichever party is best able to manage it, at appropriate cost.

The NTG anticipated that a successful proponent would be selected following a three stage process comprising an Expressions of Interest (EoI) stage (Stage 1), a Request for Detailed Proposals stage (Stage 2) and a contract negotiations (financial close) stage (Stage 3), these are further outlined.

5.3.1.1 Stage 1 Expressions of Interest

Advertisements were placed in national publications by the NTG in early September 2003 calling for expressions of interest (EoI) to develop the waterfront site - including the convention Centre.
and exhibition centre - as a build, own, operate and transfer back to the taxpayers after 25 years.

The EoI document required the following returnable information from interested consortia of developers, financiers and operators.
> A preliminary concept plan
> How the area would be developed
> Details of technical and management abilities
> Financial resources
> Experience in projects of this magnitude

Bidders also had to outline the composition of the consortium team (including the inclusion of local companies), provide capability statements, outline project economics, provide a preliminary concept, and outline their project delivery strategy. They also need to provide evidence that they can produce a vision capable of achieving the government’s requirements for a world class development of the site and operation of the Darwin Convention and Exhibition Centre.

Other requirements to be evidenced included significant local industry participation in the redevelopment, and that the proponent had the necessary skills and plans for public consultation on this important project.

Government proposed that expressions of Interest were to be evaluated and short-listed to three proponents by December 2003, who would then be invited to submit detailed proposals for the development of the project.

5.3.1.2 Stage 2 Evaluation and Selection of the Preferred Proponent and detailed Bid Phase

The three short listed consortia from the EoI process would then be invited to proceed to the detailed bid phase proposed period of between January 2004 to April 2004.

Proponents detailed bid phase development proposals included:
> Design concept – including master plan, models, site plans
> Design and documentation of the Convention and Exhibition Centre to development consent approval level;
> Feasibility studies including demand analyses
> Financial considerations/commitment and parameters
> Management structure
> Structure of contractual arrangement
> Other issues related to the proposed development; and
> Local industry participation.

It was anticipated that there would be opportunities for proponents to receive briefings from the NTG during Stage 2 to ensure that submissions were properly focused on the NTG’s requirements for the project.

Proponent detailed bids were required to outline how they would implement the vision for the site, develop and operate the convention and exhibition centre and detail the extent of contribution they expect from Government towards the construction and operation of the convention and exhibition centre, and head works for the site.
Detailed bids included a Local Industry Participation Plan, as required by the NTG’s Industry Participation Plan Policy.

In addition to detailing government contributions towards siteworks and headworks, the bids needed to include the return to the Government from revenue from the sale of land and property.

At this stage proponents were required to submit details of their development plans and proposed facilities, traffic analysis and design, preliminary designs for the convention centre and design for required engineering services, to support their bid.

The NTG proposed that the preferred bid were to be announced in June 2004.

5.3.1.3 Stage 3 Negotiations with Preferred Bidder for Financial Close

The preferred proponent was offered a period to negotiate and document the contractual, financial and other matters related to the project. The government’s legal advisers proposed a draft contract documentation for negotiation. These negotiations lead to a Project Development Agreement (PDA) being formed. The PDA outlines the responsibilities and Risks for the Government and developer, and details the timing of both contributions from the Government and revenue returns to Government during the life of the project.

5.3.1.4 Essential Components of the Project

A Convention and Exhibition Centre was to be constructed with necessary infrastructure as part of a substantial first stage, including a pedestrian link adjoining the CBD. The entire site was to be a landmark development providing generous family friendly public space (in the order of 20 percent of the site) including extensive access to foreshore in the form of boardwalks and parks. It was essential that the final master planned development fully extends the CBD to the waterfront and does not create a precinct detached from the rest of the CBD.

The Governments contribution to the project was initially set at $100 million, the land, and roads and services to the boundary of the development site.

The returns the Government was anticipating included;

- revenue as the project proceeds;
- a successfully operating Convention and Exhibition Centre;
- the developer’s commitment to genuine partnerships with local industry including development opportunities under the overall project;
- funded realistic proposals for quality community facilities; and
- a plan to create a sustainable and viable precinct which fosters the cultural, social and economic dynamics of the community.

In conjunction with the private sector bidding process the NTG held public consultations leading to a final agreed Master plan for the area. The findings of the community consultation report were provided to the short listed proponents preparing detailed responses to assist them in understanding the vision and ideas for use in their master plan development.
Through a series of workshops and surveys in January 2004, Sheila O’Sullivan of Socom found from discussions with over 100 Territorians, that “the redevelopment would be welcomed if it:

- Creates a special sense of place. Its design and activities must expand on the land/water connection of the waterfront. It should present as the Gateway to Darwin and the outback from the sea and from the top of the escarpment;
- Respects the history of the site and makes that accessible to locals and visitors alike;
- Draws on the tropical savannah climate in the landscaping, the architecture, the materials used, and the vegetation selected;
- Gives the people the ownership of the water’s edge, and accommodates their desire to walk, amble, cycle and relax along its length;
- Provides for a range of dining and drinking opportunities that maximise the virtues of the site - the sunset, the waterfront, the wharves and picnic areas;
- Deals with or masks the mudflats;
- Locates the bulk of the residential development at either end of the site and maximises the public open space in the middle and along the waterfront;
- Provides for a convention and centre that looks as good from the top of the escarpment as it does from the wharves;
- Draws people to exhibition and performance spaces that showcase local and international artists and performers and becomes a home for outdoor music, entertainment and exhibitions; and
- Improves the opportunities for all types of boats and yachts to moor safely and easily and provides for temporary stops.

The people of Territory would be disappointed and not be drawn to the site if:

- The view from the top of the escarpment is a building or a roof top rather than the waterfront;
- The view from the bottom masks any views of the escarpment;
- Access from the CBD does not flow easily;
- People from the suburbs cannot easily access the site;
- Car parking for the site is not an integral and non negotiable part of the plan;
- Much of the site is turned over to car parking;
- Pathways are not shaded and at least the key ones are not weatherproofed and
- Shaded open space is not available for picnics during the day. “ (Socom 2004)

5.3.1.5 Planning and Environmental Approval Framework

The development was subject to a formal environmental assessment under the Environmental Assessment Act 198 (NTG). This included the preparation and assessment of an Environment Impact Statement by the NTG. The preferred proponent was then required to satisfy all conditions of the approved EIS, including all government agency requirements and obtain the Development Consent Authority (DCA) approval based on the details of the staged master plan development.

The preferred proponent’s master plan would form the amendment to be adopted for the waterfront precinct planning scheme as it relates to the DCW site. The proposed amendments to the Northern Territory Planning Scheme incorporating the relevant part of the successful proponent’s master plan would be placed on public exhibition by the Minister and community responses sought. The DCA conducts the public hearing and reports to the Minister who then makes a determination on the matter. Upon determination (approval) the master plan would
become the approved master plan with relevant parts being incorporated into the Northern Territory Planning Scheme.

The successful proponent would then submit development applications for the staged works including the DCEC, for approval at or about the same time as the master plan is lodged for determination, to permit the timely construction of the works as anticipated by the NTG.

5.3.2 Consortium EoI Proposal and Structure

The EoI details of the Darwin Cove Consortium (DCC) proposal are outlined comprising the partners of ABN AMRO Australia Limited, Walker Corporation Pty Ltd, Sitzler Bros. (Darwin) Pty Limited and Barclay Mowlem Limited. The EoI was prepared in its entirety by ABN AMRO in their capacity as the bid and financial leader with input from local firms to develop the consortium equity and non-equity partners, roles and scope of services. Connell Wagner P/L the consortium technical advisor can be credited with bringing to ABN-AMRO’s attention the opportunity that this project presented and for selection of many key locally based partners that went on to become members of the consortium. It is important to act promptly, before the project goes public to secure local partners of choice. This is paramount in such a small market like Darwin, to claim to government that the consortium comprises the best local participants in their field of practice.

The Walker Corporation was initially proposed to lead the Master Planning and Integrated Development process to enable an extensive community consultation process in both the initial and on-going planning phases. The Darwin Cove Consortium Special Purpose Vehicle was expected to be the sole contracting entity with the NTG. The Darwin Cove Consortium SPV is underwritten by ABN AMRO and Walker Corporation.

The Darwin Cove Consortium was formed and structured with the following key objectives in mind:

- Providing certainty of delivery of the Northern Territory Government’s vision;
- To provide the best available expertise in each facet of the project;
- Allocating roles and responsibilities across Consortium members best experienced and placed to manage same; and
- Facilitating a clear risk allocation away from the Northern Territory Government to the private sector parties best positioned to price and manage the risks associated with the Project.

The structure diagram in Figure 5-2 sets out the key relationships between the Darwin Cove Consortium members and the Territory Government.
The Darwin Cove Consortium SPV was required to undertake the preparation of the broad site master planning and integration of this master planning with the neighboring Darwin CBD precinct. In turn the Darwin Cove Consortium SPV contracted down to the Convention and Exhibition Centre SPV and the Walker Corporation - Master Developer SPV. ABN AMRO was the sponsor, underwriter and arranger of the Convention and Exhibition Centre SPV. Walker Corporation was to also be a sponsor (however latter withdrew – refer section 5.4), underwriter and arranger of the Walker Corporation - Master Developer SPV.

**ABN AMRO Australia Limited** filled the role of project sponsor for the Convention and Exhibition Centre, and would underwrite all debt and equity requirements for this aspect of the Project. ABN AMRO would also retain a long-term role as bond, administration and asset manager for the Convention and Exhibition Centre.

ABN AMRO as project sponsor was responsible for arranging and delivering all aspects of the Convention and Exhibition Centre facility under a BOOT arrangement involving what was envisaged to be a 25-30 year concession period.

In its role of sponsor of the Convention and Exhibition Centre development, ABN AMRO is responsible for procurement of a suitably qualified convention and exhibition centre operator. ABN AMRO undertook preliminary discussions with several local operators who expressed an interest in operating the new Darwin Convention and Exhibition Centre.

Recognising the potentially competing interests of local operators, ABN AMRO also approached a number of overseas operators. Responsibility for marketing the Convention and Exhibition Centre and successfully integrating its marketing into the broader context of business, convention and incentive tourism was intended to be the responsibility of Convention and Exhibition Centre management in collaboration with the Northern Territory Convention Bureau, Northern Territory Tourist Commission, the Australian Tourist Commission and other global alliance partners.
ABN AMRO is a mature and long-term participant in the infrastructure financing market with a record of financing up to ten PPP type infrastructure projects in the Australian market. Support in relation to the Project is prospective at the EoI stage, which was formalised as solid underwriting approval was obtained during the tender phase.

Walker Corporation Pty Ltd was responsible for site master planning and integration of the Convention and Exhibition Centre with waterfront living and supporting retail and commercial facilities.

The Walker Corporation role as the Master Developer SPV was to sponsor and underwrite the delivery of the urban development element of the project. Such development was expected to be conducted in stages over a 10 – 15 year period. The staged nature of the development would track the expansion of the Darwin City population and market demand.

The input of Local Developers was critical to Darwin Cove Consortium’s strategy. Local input was vital to ensure Darwin Cove Consortium’s delivery on the Northern Territory Government’s stated vision for the Project. To this end, a significant element of urban development was planned to involve local property developers.

The Darwin Cove Consortium has the necessary skills to address all funding requirements. In the case of the residential development, the average size of the residential stages of the project would require funding capacity of $50m – $100m.

The Walker Corporation has been the lead developer in several Joint Ventures for major government development initiatives, within the bounds of prescriptive development standards. The outcome required by government was to achieve high quality design, scheduled delivery of the key public infrastructure and the completion of the stages of the project in an agreed time frame.

Sitzler Bros. (Darwin) Pty Limited and Barclay Mowlem Limited
Sitzler Bros. and Barclay Mowlem were contracted to design and construct the Convention and Exhibition Centre as partners under the Sitzler Barclay Mowlem Joint Venture (SBMJV). SBMJV engaged design, engineering and other specialist consultants. Darwin Cove Consortium SPV subcontracted design and construct risks to SBMJV, via a fixed price, fixed time D&C Contract.

This contractual and management structure was established to ensure that Darwin Cove Consortium optimises delivery of the Northern Territory Government’s objectives.

The principle goals of the design and construction team were to:
- Respond to Convention and Exhibition Centre needs and objectives in a manner that provided a value for money outcome for all stakeholders involved in the project;
- Actively partake in a stakeholder community consultative process that would ensure the delivery of a dramatic signature building that is an icon of the complete development.
- Actively seek to engage the services of local business and labour to achieve a high level of local participation
- Deliver a Convention and Exhibition Centre that meet all operating requirements for the convention market as a multi-purpose venue;
- Deliver the Convention and Exhibition Centre within the agreed contract sum and time stipulated;
- Construct the Convention and Exhibition Centre to the required quality standards;
• Execute the works in a manner to minimise the effects of construction on the public, tourists, adjacent business and adjoining landowners.

The project organisation structure at the EoI stage was developed to achieve the following:
• A single contracting entity (Darwin Cove Consortium SPV) with Northern Territory Government which was responsible for the overall development of the Darwin City Waterfront precinct. This entity has a board consisting of the key consortium sponsors and a management team.
• Darwin Cove Consortium SPV has contracted the Convention and Exhibition Centre SPV for the delivery of the Convention and Exhibition Centre and its long-term operations and facilities management. It was intended that the responsibility for all initial infrastructure and certain key developments such as the initial public space, wharves and foreshore work and retail and restaurant developments would also rest with this entity.
• Darwin Cove Consortium SPV has contracted with Walker Corporation for all other site developments likely to take place over the longer-term time frame.

The following consultants and advisers were engaged by the Darwin Cove Consortium at the time of the EoI stage.

Table 5-2 Darwin Cove Consortium – Consultants and Advisers

<table>
<thead>
<tr>
<th>Area of Specialisation</th>
<th>Consultant / Adviser</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Director</td>
<td>CW-DC Pty Ltd</td>
</tr>
<tr>
<td>– Convention and Exhibition Centre</td>
<td></td>
</tr>
<tr>
<td>Architect and Principal Consultant</td>
<td>Woods Bagot</td>
</tr>
<tr>
<td>Urban Master planning</td>
<td>Trevor Reddcliff</td>
</tr>
<tr>
<td>Engineering Services</td>
<td>Connell Wagner, Connell Mott MacDonald</td>
</tr>
<tr>
<td>Convention and Exhibition Centre</td>
<td>Skidmore, Owings &amp; Merrill</td>
</tr>
<tr>
<td>Concept Architecture</td>
<td></td>
</tr>
<tr>
<td>Waterfront Planning Consultant</td>
<td>The Gapp</td>
</tr>
<tr>
<td>Waterfront Development Advisor</td>
<td>V&amp;A Waterfront</td>
</tr>
<tr>
<td>Quantity Surveyors</td>
<td>Rider Hunt</td>
</tr>
<tr>
<td>Legal Advisor</td>
<td>Freehills</td>
</tr>
<tr>
<td>Tax and Accounting Advice</td>
<td>KPMG</td>
</tr>
</tbody>
</table>

The success of this Darwin project is not only dependent on the provision of the Convention and Exhibition Centre but the development of ancillary developments which provided an initial critical mass for the precinct. These included a hotel or serviced apartments, some retail and restaurants, with all major infrastructure such as roads, wharf construction and remediation work carried out to the extent necessary for the initial stage to stand alone as a completed facility.

With respect to the ongoing further development of the site, in particular the large residential component, this is expected to continue in stages over a period in excess of 10 years. The master plan for the site would enable this staggered development to occur in a planned fashion without the project resembling a construction site. Expansion would be able to occur within each discrete component of the site without damaging the amenity of the remainder of the site.

Walker Corporation is carrying out the longer term residential development, and understand that the master plan must allow for control over density and height to ensure that the overall development is digestible within the capacities of the real estate demand.
The core tenets of the funding approach promoted by Darwin Cove Consortium are as follows:

- Keep to a minimum upfront payments required to be made by Government;
- Deliver the Convention and Exhibition Centre, including the connection of waterfront development to Smith Street, utilising a privately financed PPP style concession arrangement; and
- Offset such availability payments with the revenue stream flowing from the staged surrounding urban development.

**Keep Up-front Payments by Government to a Minimum**

The consortium made the offer to government to assume the responsibility of remediation of the site provided some upfront payments, or a component of the availability payments be made. Such initial remediation is required, at a minimum, for the Convention and Exhibition Centre site and surrounding infrastructure.

To the extent that Government would prefer initial remediation and site preparation works be funded via deferred payments, Darwin Cove Consortium can accommodate such an approach through the inclusion of this element of the Project under the Convention and Exhibition Centre PPP described below.

**Convention and Exhibition Centre PPP**

Darwin Cove Consortium’s funding approach to the Convention and Exhibition Centre involves the Northern Territory Government implementing a privately financed PPP style concession arrangement.

Under this approach the rights and risks associated with design, construction, operation, maintenance and financing of the facility is primarily borne by the private sector, in return for which Northern Territory Government pay a fixed, performance based Availability Charge. Performance standards dictating the payment of the Availability Charge are determined at the outset. Availability payments are made by the Government over a 25 – 30 year period.

The Northern Territory Government availability charges are securitised and result in the issuance of senior debt, the rating on which would be closely related to that of the Northern Territory Government. It is expected that the senior debt issue, therefore, would be highly rated, delivering the Northern Territory Government with a value-for-money funding solution.

### 5.3.3 Short Listing EoI Registrants

It was published in a media release by the NTG, that they received eleven registration documents from private consortia up to the closing period for EoI’s on the 20 October 2003. This followed EoI documents being issued to all registered parties on the 5 September 2003.

As per the governments initial project timeline on the 19 December 2003, the following three short listed proponents were announced by the NTG.

- Multiplex
- Leightons
- ABNAMRO / Walker Corp
Figure 5-3 EoI Consortium Organisation Structure (ABN AMRO 2003)

5.4 Call for Detailed Proposals ‘Bid Phase’

The second stage of the project procurement process was observed and witnessed the formation of the consortium team – the Darwin Cove Consortium and how its detailed bid documentation was prepared. This phase ran from **14 January 2004** through to **17 September 2004** when the preferred proponent was announced after Detailed Further Offers were considered by government.
Detailed Bid Documents were issued to the three short listed consortia by government on the 14 January 2004 for submission of detailed proposals by 12 May 2004. A negotiation process then follows.

### 5.4.1 Understanding the Bid Process Requirements

The requirements for the preparation of detailed proposals by private consortia and responsibilities of both public and private parties are outlined as it stood at the commencement of the bid phase process.

#### 5.4.1.1 Bid Documentation and Project Outline

The 'Call for Detailed Proposals' or 'Bid Document' was issued on the **14th January 2004** and the document contained two parts, Part A and B.

**Part A - The Call Document** - contained project background and information, objectives and evaluation criteria, the call process and returnable schedules.

**Part B** is a series of twenty-three separate information documents, such as a draft form of the Environmental Impact Statement (EIS), topographical survey and site historical records, to name a few key documents, the full list is a follows:

1. EIS - Phase 1 Site Contamination and Geotechnical Preliminary Site Investigation Report and Sampling and Analysis Plan (still under development)
2. Cadastral Survey including easement locations Stage 1 survey is included. Drawing 03/5732/1E: Boundary, Easement and Pedestrian Linkage Information, URS Australia Pty Ltd
3. GIS survey
4. Topographical Survey
5. Convention Bureau data
   a. Data on NT Meetings by Region (Centre) provided by The NT Convention Bureau, 4th February 2003
   b. Data on NT Meetings by Region (Top End) provided by The NT Convention Bureau, 4th February 2003
6. Information on DCW Site history
   a. Telling the Story of the Port Darwin Wharf Precinct, Barbara James, November, 1999;
   b. The Evolution of Darwin, 1869-1911: A history of the Northern Territory's capital city during the years of South Australian administration, Kathy De La Rue, soon to be published by CDU Press with financial assistance by Darwin City Council - Chapter 1 and Appendix B only;
   c. The Old Darwin Port Area Heritage and History Notes, M A Clinch, August, 1999
   d. Darwin Wharf and Port Precinct Study, Barbara Mary Pedersen,
   e. Historical plans overlying aerial photo.
7. Services compilation plan
8. Land Title information Record of Administrative Interests and Information and Search Certificates. Lots 5225, 5250, 5251, 6521, 6590, 6604, 6605, 7248, 7249
   a. Local Industry Participation Policy Guidelines, 2003 which can also be viewed at the following website:
   b. Local Industry Participation Policy, 2003 which can also be viewed at the following website:
10. DIPE storm surge map - Northern Territory Floodplain Management Committee DWN 2495 (based on VIPAC report 24113-1 Greater Darwin Storm Surge Risk August 1994)
11. Port Usage Overview
12. Aerial photomap
14. Native Title clearance / opinions. This paper outlines the following:
   • Existence/Summary of Claims
   • Summary of Opinions
   • Confirmation that the Territory would bear the risk
15. Guide to Infrastructure Requirements
17. Pipeline layouts Drawing no. 68501/H1 Rev A, Pipeline layouts, Port of Darwin
19. Indicative Headworks Plan
20. Draft 10 year cruise vision
21. EIS Phase II Detailed Site Contamination Investigation and Field Geotechnical Investigation Report
22. Northern Territory Tourist Commission Information about the Northern Territory Tourist Commission
23. Public Art Definition

The details of the required deliverables are presented in the returnable schedules of the bid documents (Part A) and are further summarised.
### Table 5-3 Bid Phase Deliverables

<table>
<thead>
<tr>
<th>Item</th>
<th>Objective</th>
<th>Deliverable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Master Planned Development by Private Sector</td>
<td>Exposition of both the Master plan and the urban design philosophy adopted in text and drawings. Illustrative boards. Scale Model. Outline the two distinct development stages.</td>
</tr>
<tr>
<td>2</td>
<td>Darwin Convention and Exhibition Centre - Design and Function</td>
<td>Scale model. Identification of specific elements, area analysis and functional relationship Schedule of FF&amp;E</td>
</tr>
<tr>
<td>3</td>
<td>Sustainability Principles (ESD)</td>
<td>Sustainability (ESD) plan for all elements of the Master plan, including the DCEC outlines objectives and KPI’s</td>
</tr>
<tr>
<td>4</td>
<td>Local Industry and Indigenous Participation</td>
<td>Outline estimated project value and Northern Territory Industry component for businesses and services, suppliers and labour utilisation and capacity, regional economic development benefits and Indigenous participation. A communication strategy to inform, educate, and enhance local industry participation.</td>
</tr>
<tr>
<td>6</td>
<td>Partnering Structure</td>
<td>Outline previous experience to deliver similar developments, financial and legal structure proposed. Evidence of the source and certainty of project funds. Company (or other vehicle) structure and financial arrangements. Management and delivery team and key professional consultants, contractors and advisers and their ongoing roles. Outline contracting documentation.</td>
</tr>
<tr>
<td>7</td>
<td>Financial Structuring and Territory Funding</td>
<td>Outline cash flow movement and cash requirements where expected to be greatest for milestones by lending terms and conditions. Sensitivities for using best and worst case scenarios, impact on funding constraints and conditions. Interest rate, swap margin, financier’s margin and other funding costs.</td>
</tr>
<tr>
<td>8</td>
<td>Risk Allocation Strategies</td>
<td>Mark up risk allocation plan confirming those risks which are not accepted, the reasons for non-acceptance and any proposed alternative.</td>
</tr>
<tr>
<td>9</td>
<td>Project Documentation</td>
<td>Review drafts of Concession Deed, PDA and Development Lease for acceptance (or otherwise)</td>
</tr>
<tr>
<td>10</td>
<td>Requirements of the Territory</td>
<td>Requirements or exposure of stakeholders either in monetary contribution or in kind resulting from proposal.</td>
</tr>
<tr>
<td>11</td>
<td>Statutory Declaration, Confidentiality Agreement and Intellectual Property Rights</td>
<td>Declaration of conflicting interests for all participating parties, usage of confidential information and transfer of intellectual rights of the design product.</td>
</tr>
</tbody>
</table>
5.4.1.2 Project Constraints

The NTG identified the following framework for the bid phase and development of the site:

- Four months to produce the detailed bid proposal (14 January 2004–12 May 2004)
- Construction scheduled to commence in January 2005
- The DCEC is to be completed and operating as soon as practicable, anticipated to be late 2006, under a BOOT arrangement
- Maintaining existing adjoining land/business functionality
- Height of structures limited to adjacent escarpment height – not a ‘Gold Coast’ development.
- Full probity disclosure. Resulting disclosure of information from all individual consultations including stakeholders in which discussions of master plan and bid details may be had.

5.4.1.3 Project Deliverables

The land component of the DCW Site is approximately 25 Ha. Opportunities also exist to reclaim adjacent waters within the DCW Site.

An essential element of the DCW Project was the delivery and operation of a purpose built world class convention and exhibition centre (DCEC), which is the centre-piece of the substantial Stage One. The contractual basis for the delivery of the DCEC is a Build Own Operate Transfer (BOOT) structure linked to key performance indicators which maximise the economic benefit to the Territory.

The government at the outset of the bid phase anticipated that the DCW Project included, in addition to the DCEC, complementary hospitality/retail/tourist accommodation development, commercial development, community uses (including a major water/pool feature), residential dwellings, marine activities, full waterfront access for the public and open space areas.

The DCW Project must achieve connectivity with the rest of Darwin’s CBD. The final mix of development use would depend on market forces and a requirement that the development is complementary to Darwin’s CBD. Any development immediately fronting the CBD escarpment would not exceed the height of the escarpment.

Redevelop site to maximise the appeal of those parts of DCW Site (designed for such purposes) as a new, exciting and distinctive venue for local national and international events.

5.4.1.4 Northern Territory Government Responsibilities

The Territory was prepared to undertake at its cost the removal of existing maritime and industrial operations related building infrastructure, and progressively upgrade infrastructure external to the DCW Site. The Territory would complete decontamination of the site to a standard certified by the Independent Environmental Auditor and in time to the construction timetable agreed.

The Territory had budgeted to contribute the DCW site and at least a $100 million to be applied to the capital cost of the DCEC, operating expenses, and other major infrastructure works for Stage One.

The Territory had allowed to complete the environmental impact statement (EIS) and assessment process defining those elements of the environment which may be affected by a
development proposal, and of determining the significance, risk and consequences of the potential impacts of the proposal. Recommendations arising from the assessment were tabled to address methods to mitigate these impacts.

The Territory was prepared to make a payment of $250,000 (plus GST) to unsuccessful Proponents where the proposal is compliant and all IP rights are transferred. This represents a partial reimbursement of the Proponent’s costs and disbursements incurred in preparing its Proposal.

5.4.1.5 Consortium Responsibilities

The consortium was to remove remaining on ground structures such as slabs and services including redundant fuel lines. The consortium was to design and construct all services and infrastructure within the site including re-location of existing services see they remain functioning (ie to wharves) such as fuel pipelines. Undertake all earthworks and coastal protection works including dredging and disposal of spoil. Provide an all-weather access system linking the DCW Site with the Darwin CBD. Document pedestrian and cycle paths leading from the DCW Site to established byways. Ensure works on the DCW site do not prevent continued operation of existing adjoining businesses.

The Master plan was to be prepared in a manner which minimises the cost of decontamination.

5.4.2 Building the Team and the Vision

Throughout February 2004 the consortium team, the 'Darwin Cove Consortium' updated its team membership and roles since the EoI process and developed a preliminary master plan after initial team meetings in Darwin and NTG project briefings.

5.4.2.1 Consortium Bid Phase Structure and Roles

During the bid phase the SPV entities required by the NTG were not established within the consortium partners, instead a 'bid team' was assembled. The SPVs are only established once the consortium becomes the preferred proponent and concession holder for the development of the DCW site following the execution of PDA’s and financial close is achieved.

The Territory wanted the DCW Site to be developed through a PPP structure. The Territory’s objective was to establish a clearly defined partnering structure and contractual and financial arrangements.

The contractual basis for the delivery of the DCEC was a Build Own Operate Transfer (BOOT) structure linked to key performance indicators which maximise the economic benefit to the
Various SPVs were established to service the BOOT obligations required by the Territory. These SPVs subsequently engage managers, operators and development contractors. A Convention Centre (DCEC) SPV was established by the consortium to deliver the DCEC and associated infrastructure. An Infrastructure SPV established to deliver the site infrastructure and associated land improvements. A residential SPV to deliver the residential apartments and associated hospitality developments.

During the bid phase the consortium partners (equity partners) fund their own involvement through covering professional staff fees and expenses. ABN-AMRO as bid leaders reimburse the professional fees and expenses of all technical advisors (non-equity partners) and other bid related costs, such as the scale models and any further investigations.

**3 Feb 2004, Consortium kick-off meeting in Darwin.** This meeting provided the opportunity for consortium members to meet face-to-face for the first time and update the team member changes since the EoI was lodged. Roles are outlined and the process and programme Table 5-4) for the following months to complete the bid phase elements for the submission in May 2004 are tabled. At the outset of the bid phase the three short listed consortia jostled to secure key team members. Notably the consultants Woods Bagot, Trevor Reddacliff and Skidmore, Owings & Merrill where replaced by Hassell Architects and Crawfords TVS undertaking architectural, master planning and Convention and Exhibition Centre Concept Architecture respectively.

**Table 5-4 Bid Phase Programme**

<table>
<thead>
<tr>
<th>WEEK</th>
<th>DATE</th>
<th>TASK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>04-Feb-04</td>
<td>Government Briefing</td>
</tr>
<tr>
<td>2</td>
<td>11-Feb-04</td>
<td>First Masterplan &amp; Draft Briefs Stage I &amp; II</td>
</tr>
<tr>
<td>3</td>
<td>18-Feb-04</td>
<td>Draft return briefs stage I &amp; II</td>
</tr>
<tr>
<td>4</td>
<td>25-Feb-04</td>
<td>Present concepts stage I &amp; II</td>
</tr>
<tr>
<td>5</td>
<td>03-Mar-04</td>
<td>Draft Engineering / infrastructure brief</td>
</tr>
<tr>
<td>6</td>
<td>10-Mar-04</td>
<td>Elemental Cost Plan</td>
</tr>
<tr>
<td>7</td>
<td>17-Mar-04</td>
<td>Present masterplan / architectural / engineering for costing</td>
</tr>
<tr>
<td>8</td>
<td>24-Mar-04</td>
<td>1st cut on overall cost plan</td>
</tr>
<tr>
<td>9</td>
<td>31-Mar-04</td>
<td>Design development to 30%</td>
</tr>
<tr>
<td>10</td>
<td>07-Apr-04</td>
<td>Freeze design</td>
</tr>
<tr>
<td>11</td>
<td>14-Apr-04</td>
<td>Cost plan issue</td>
</tr>
<tr>
<td>12</td>
<td>21-Apr-04</td>
<td>Commence bid documents</td>
</tr>
<tr>
<td>13</td>
<td>28-Apr-04</td>
<td>Conclude deals</td>
</tr>
<tr>
<td>14</td>
<td>05-May-04</td>
<td>Review Bid documents</td>
</tr>
<tr>
<td>15</td>
<td>12-May-04</td>
<td>Collate Documents</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Check deliverables</td>
</tr>
</tbody>
</table>

**Consortium Partner and Consultant Roles.** Local industry participation following Territory guidelines utilising a Local Industry Participation Plan (LIPP) was important to the Territory Government. Sitlzer Bros, Henry Walker Eltin (HWE), Connell Wagner (CW), Knight Frank (Commercial Property Consultants), Rider Hunt (cost consultants) and Hassell (Architects), are all locally based firms with a national profile. Sitlzer Bros have a joint venture agreement with Barclay Mowlem, known as SBMJV to provide greater financial capacity.
Crawford TVS are specialist large public building designers based in the USA and Melbourne. ABN-AMRO has a past relationship with Crawford TVS and have been appointed as the principal DCEC Architect.

It was planned that if the bid was successful, Connell Wagner and Group of Companies would undertake separate key roles to the DCEC SPV and Infrastructure SPV, utilising its Connell Mott-MacDonald and CW-DC P/L entities respectively. This would be similar for consortium architects and other design specialists. Through its Management Services section, Connell Wagner would also be engaged directly to the developer or concession holder the ‘Darwin Cove Consortium’ in the role of Project Director overseeing all works, responsible to the NTG.

For the bid phase of the project, Connell Wagner acted on behalf of ABN-AMRO as the Bid Manager for the Darwin Cove Consortium. All consortium members assumed responsibility of the relevant project elements during the bid phase inline with the assignment SPV entities if successful. The consortium members to develop Stage 1 of the DCW site are summarised in Table 5-5.

Table 5-5 Bid Phase Consortium Members

<table>
<thead>
<tr>
<th>Project Elements Responsibility</th>
<th>SPV Leader (Equity Partner)</th>
<th>Technical Advisor (Non-Equity Partner)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project Sponsor Bid Leader and Developer</td>
<td>ABN-AMRO</td>
<td>Connell Wagner P/L (Project Director)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Hassell Architects (Master Plan)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Rider Hunt (Cost Estimation)</td>
</tr>
<tr>
<td>Convention Centre (DCEC)</td>
<td>Sitzler Bros and Barclay Mowlem JV (SBMJV)</td>
<td>Crawfords TVS (Principal Design Consultant and Architect)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Connell Mott-MacDonald (Building Services Engineering)</td>
</tr>
<tr>
<td>Stage 1 Infrastructure</td>
<td>Henry Walker Eltin (HWE)</td>
<td>Hassell (Principal Design Consultant and Architect)</td>
</tr>
<tr>
<td></td>
<td></td>
<td>CW-DC (Engineering Services)</td>
</tr>
<tr>
<td>Residential</td>
<td>Walker Corporation</td>
<td>Not established at this stage</td>
</tr>
</tbody>
</table>

SBMJV intended to engage Connell Mott MacDonald for full design engineering services for Structural only, and Mechanical, Hydraulic, Electrical and Fire services were to a concept design stage if the bid was successful. HWE intended to engage CW-DC Pty Ltd for full detailed design of all services.

The NTG project team held a project briefing on the 4 February 2004 in Darwin for all proponents. Key matters raised during this discussion of the bid process and explanation of the bid documents included:

- Public sector (delivery) comparator (PSC) would not be made public
- Probity auditor appointed
5.4.2.2 Development of the Master Plan

The first master plan developed by the consortium team was issued internally on 16 Feb 2004 by Hassell with two options for the DCEC location. The first option was water based and second a land based option for sighting of the DCEC, both of which differed from the NTG concept master plan produced at the EoI stage and after public consultation. This was a great risk for the consortium to take and required some initial consultation with the Territory to ensure this proposal was not going to jeopardise the bid process and be ruled out.

Further key concepts of the development master plan included:
- Residential finger apartments into the sea
- Mother-of-pearl iconic DCEC form, symbolic of a midden (an aboriginal meeting place)
- Mixed use precinct wet and dry season functionality
- Alfresco dining
- Darwin’s safe beach
- A space for the family to go free of charge

The consortium was able to obtain feedback from the Territory regarding this initial master plan. The Territory found that the master plan did not align with the project constraints such as to maintain the use of site’s existing wharves and emphasise the past historical significance. Also the development footprint extended into sites of historical importance without any consideration.

A preliminary initial cost estimate based purely on the master plan sketch concept without any engineering details was provided by Rider Hunt. This estimate was based on the stage one master plan gross areas and utilising previous similar project rates. This provided the consortium with the first indicative development bid estimate. The cost included $100m of government money to develop necessary infrastructure to support the Convention Centre.

<table>
<thead>
<tr>
<th></th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCEC</td>
<td>$70 M</td>
</tr>
<tr>
<td>INFRASTRUCTURE</td>
<td>$62 M</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>$132 M</strong></td>
</tr>
</tbody>
</table>

Table 5-6 Comparative Cost Estimate

5.4.3 Engineering the Master Plan

Throughout March 2004, the engineering elements to support the master plan were examined by the consortium technical advisors. As part of the development of concept documentation, engineering input was required to support the master plan. This involved devising the necessary conceptual infrastructure, structures and specifications for an engineering functional design brief which sets the engineering parameters.
The key engineering design elements in response to the master plan for the DCW project were:

- New iconic, multi-story building structures and associated building services
- Overcoming climatic conditions and proximity to marine environment
- Incorporation of ESD principals for all services requirements
- Utilisation of co-generation and recycling option development
- Incorporation of marina and other water activities infrastructure involving dredging and land reclamation
- Traffic management and supporting road network development
- Environmental controls, rehabilitation and decontamination
- Provision of public utilities to service required site amenities

The marine environment was a huge obstacle to overcome as the development site is coastal. Darwin's cyclonic conditions (Cyclone Tracey 1974) required raised building flood levels, possible breakwater protection, removal of mangroves and visible mud flats, creation of a stationary body of water to be created for marina purposes involving a lock to access the marina. Darwin's tropical climate and 8m tidal fluctuations also pose difficult static conditions.

Based on recent developments adjacent the Darwin harbour (ie, Bayview Haven and East Arm Port), the decision was made at this juncture to remove the existing mangroves and mud to enable construction of structures upon these areas. The mud was to be removed using dredging techniques and disposed in a deep sea location. Due to the cost implications of geotechnical investigation in the immediate harbour area, this was not considered. Instead existing bathometric data obtained for establishment of dredge volumes of mud were used. No investigation works were allowed by proponents during the bid phase as the Territory government was still completing the EIS, which included detailed environmental investigative work. Visible investigation work may also have provided other proponents an insight into what was being considered as part of the proposed master plan. Disclosure of the bid details to other proponents, particularly the master plan was to be avoided at all costs.

The proximity to the CBD and nature of the development involving significant residential and 'peak event' movements during large public events, required a traffic and car parking study to produce a report into future traffic generating volumes and patterns. The difficulty here lies in securing the knowledge of just what is the potential usage of the DCEC, ie basketball matches to the Rolling Stones concerts.

The NTG released several tender addenda in the form of existing information pertaining to Darwin CBD car parking layouts and figures, Darwin City Council el-fresco dining guidelines and further EIS investigation data as these investigation proceeded in parallel with the bid preparation process.
5.4.4 Funding the Vision

April 2004 was the time to finalise the ‘vision’ and bring to fruition the ins and outs of the deal in the detailed master plan.

The bid team engaged the assistance of commercial leasing and marketing specialists, to create the precinct vision as a destination, place of interest and market its benefit to the Darwin community. To achieve a real commitment to growth of the local economy commercial retail, leisure and entertainment opportunities to complement the project elements of the bid were developed.

Potential commercial tenants ranging from therapeutic services, retail outlets, hospitality outlets and restaurants from both local and national franchises were approached to endorse and support the bid proposal. This approach puts a ‘soul’ into the precinct master plan ensuring a balanced mix of public spaces, services, commercial and retail initiatives, leisure and entertainment attractions and residential hubs were considered.

It was through this process of luring retail tenants, that a surfware retail outlet raised the idea for holding surfing competitions in Darwin to promote sales of surfboards. However the lack of consistent waves in Darwin gave rise to another idea, a wave pool.

All these marketable ideas to endorse the elements within precinct and promote the publics interest were fed back into the master plan to build the ‘public domain’ elements within the open public spaces.

For such a short bid process the time to generate an idea such as a master plan and then develop the technical details to enable examination of project risks was very limited. Nonetheless detail of the master plan was required to cost the infrastructure build, operation and ongoing maintenance as part of a PPP deal in order to create a winning proposal.

With the master plan constantly being refined around the thinking ‘to create the vision’, at some point in time this creativity needed to be frozen. It was then be backed up with engineering and technical advice for the construction partners to provide a guaranteed maximum price (GMP) to the project sponsor to confirm fixed financing arrangements.

5.4.4.1 Focus on the Residential Aspect

At this stage in the bid process limited master planning of the residential elements of the development had occurred without any consideration of marketability leading to property sales. It was at this point in time that a residential developer with experience in the Darwin market provided some focus to the master planners to provide viability input. This included incorporation of marina aspects to the apartment developments and a lock for increasing
residential land value. The residential elements for the DCW were based on a similar development at Walsh Bay in Sydney comprising ‘fingers’ of apartments built over the existing wharfs. This configuration also lends itself to maximising ESD principals for cross ventilation as an example for reducing air conditioning costs.

5.4.4.2 Engineering Risk

With the time now gone for further engineering development, the focus of the bid moved to development of detailed cost breakdowns to cover all issues and gaps.

With a still changing master plan (submitted as part of the proposal), and the short timeframe of the bid process, inherent construction risks still remained to be resolved as limited engineering details could be developed to inform equity partners of all construction elements. These remaining risks included:

- Interfaces between each construction contract
- Hydro-geological issues surrounding basement construction in proximity of open water
- Façade and roof construction to the DCEC to comply with Darwin’s cyclonic conditions
- Expectations for finishes to DCEC and local capacity of subcontractors
- Alignment with Operator and FM of building services for DCEC
- Car Parking (in building) allotments and traffic management
- Infrastructure not aligning with latest master plan
- Development of water play and aquatic infrastructure
- Wave condition, through hydro-dynamic modeling, impacts upon infrastructure design criteria
- Adequacy of water quality infrastructure necessary for new locked bodies of water
- Impact of existing site contamination upon development
- Geotechnical conditions

The engineering details were not a requirement of the bid documents returnable schedules.

The revised cost estimate provided by the estimators within each construction partner, was based on the developed engineering details for stage one of the master plan and had undergone an increase of $47 million from the initial preliminary cost plan developed by the quantity surveyor.

**Table 5-7 Initial Elemental Cost Estimate**

<table>
<thead>
<tr>
<th>Component</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCEC</td>
<td>$106 M (QS estimate $90M)</td>
</tr>
<tr>
<td>INFRASTRUCTURE</td>
<td>$73 M</td>
</tr>
<tr>
<td>TOTAL</td>
<td>$179</td>
</tr>
</tbody>
</table>

The revised cost estimate made allowances for risks such as the pricing of steel in the future (due to the demand in China), possible increases of local labour rates in the future (also due to demand) and potential union action. Furthermore where details of the project elements had not been engineered, provisional cost (PC) sums were allocated, as is typical for the case of the community open space works. Other risks included dredging and cartage of fill material as earthworks quantities had only been ascertained based on preliminary information without detailed geotechnical investigations.
5.4.5 Pulling the Deal Together

Reference Point in Project Procurement Continuum (above)

May 2004 provided only a few weeks to bring all of the deal components together into one detailed proposal document. A specialist marketing consultant including a team of technical writers developed the written text for the bid documents and returnable schedules, using input from all consortium partners and technical advisors.

The Toga Group replaced the Walker Corporation as they pulled out of the bid some 2-3 weeks before bid close claiming that they couldn’t make it work for the residential elements.

5.4.6 Contents of the Proposal Documents

The call for detailed proposals or bid phase closed on the 12 May 2004 as scheduled. As all proponents had to personally present their bid details to the NTG tender panel on the 9 July 2004, the details of the final bid documents are discussed following the presentation format.

Darwin Cove Consortium Detailed Proposal in the form of each Returnable Schedule 'The deliverables' are contained in Appendix A.

The master plan provided a radical departure from the bid documentation in which the DCEC was sited off-centre of the development site and water based to create a visual impact to the public when entering the site from the main roadway from the CBD. This location also complemented the footprint of the stage 1 separable works from the residential build out in stage 2.

The DCEC building comprising all of the necessary specified functionality took a 'mother-o-pearl' or a 'midden' form which was symbolic of local industry and past indigenous links with the site respectively.

Central and shared co-generation plant in partnership with a commercial utility company was provided to provide energy generation through solar panels and recovered waste energy for cooling and heating of water as a means of addressing sustainability across the development.

Local Industry and Indigenous Participation was afforded in the proposal through utilisation of some of the largest locally available industry partners aware of the local community drivers and established labour support networks.

The business plan for the success of the DCEC was under pinned through fixed price and time D&C contracts for construction, operation, maintenance and debt and equity finance assumed by the private sector for a 25 year period. An offer for Community Infrastructure to also be leased back to
government for various periods in a similar fashion to the DCEC was provided. The private elements while master planned but not funded would be fully underwritten by the consortium at the conclusion of financial close as necessary to compliment stage 1 with the remainder delivered inline with market demand.

A traditional and proven PPP approach was able to be developed by the consortium using experienced local partners for the DCEC and supportive community infrastructure to partner with government. With the private elements (residential apartments) delivered separately by a developer Toga Developments.

The financing structure adopted took risk on both completion and the long-term asset performance of the project using D&C and facility maintenance arrangements with consortium partners SMBJV and Honeywell respectively.

A large majority of risks generally had been assumed by the consortium where they can choose how to manage, devise processes to assess, give back and share risks with government. Additional government assumed risks included archaeological with sharing of interest rate changes and force-majeure events.

The proposed project contract documentation required significant amendment to address the consortium commercial interests and proposal structure. The most significant was the separation of the operation of the DCEC from the delivery of the facility.

The consortium’s specified requirements of government included:
- Site decontamination and preparation issues related to dredging and disposal of marine sediments
- Establishment of a suitable foundation for breakwater structure (during financial close)
- Unexploded Ordinance
- Provision of essential services and improvements to the site boundary, incl. telecommunications and other necessary headworks
- Allocation of provisional sums to allow further design development of several community infrastructure and public domain elements.

The legal and commercial framework associated with Figure 5-4 contains the following key elements:
- Darwin Cove Convention Centre Pty Limited (Darwin Cove Convention Centre P/L), would enter into the Concession Deed with the Territory;
- Darwin Cove Convention Centre Pty Limited is financed with equity (10%) and bond proceeds (90%);
- AAA would provide construction letters of credit to the bondholders and equity from financial close until practical completion (2 years);
- Darwin Cove Convention Centre Pty Limited would back-to-back its design and construction obligations to the D&C Contractor under the D&C Contract and will back-to-back its maintenance obligations to the Facility Manager under the FM Agreement;

Territory pays an availability payment to Darwin Cove Convention Centre Pty Limited during the operating phase (subject to abatement for unavailability), which Darwin Cove Convention Centre Pty Limited would apply toward payment of the Facility Manager’s fee and capital costs (PPP structure).
Commercials
A breakdown of the financial commitment offered by the Darwin Cove Consortium to develop both public and private elements of the site is explained.

The public elements costs include the DCEC and the Community Infrastructure (CI) are further broken down identifying the costs of the individual components (stage 1). Private elements comprise the apartment developments staged over a 10-15 year period (stage 2+).
Table 5-8 Bid phase commercials

Stage 1 – Public Elements

<table>
<thead>
<tr>
<th>Component</th>
<th>Cost ($AUD million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCEC</td>
<td>143.5</td>
</tr>
<tr>
<td>Community Infrastructure (CI)</td>
<td>87</td>
</tr>
<tr>
<td><strong>Total Commitment</strong></td>
<td><strong>$230.5 million</strong></td>
</tr>
</tbody>
</table>

Stage 1 – Private Elements

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity/Apts</th>
<th>Cost ($AUD millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hospitality Precinct</td>
<td>120</td>
<td>$32.0</td>
</tr>
<tr>
<td>Residential Stage One Precinct</td>
<td>235</td>
<td>$84.0</td>
</tr>
</tbody>
</table>

* The development cost of the Retail is included in the Hospitality Precinct Development cost

Stage 2 – Private Element Investment

<table>
<thead>
<tr>
<th>Component</th>
<th>Quantity/Apts</th>
<th>Cost ($AUD millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stage Two</td>
<td>1,265</td>
<td>$500 million</td>
</tr>
</tbody>
</table>

Apartment Royalties

All apartment sales would pass a 10 percent royalty payment to Northern Territory Government.

<table>
<thead>
<tr>
<th>Total Development Apartments</th>
<th>1500</th>
</tr>
</thead>
<tbody>
<tr>
<td>Avg Sale Price / Apartment</td>
<td>$430,000.00</td>
</tr>
<tr>
<td>Escalation Rate</td>
<td>6% p.a</td>
</tr>
<tr>
<td>Royalty Payment to Govt (10%)</td>
<td>$64.5 million</td>
</tr>
</tbody>
</table>

All required funding for the delivery of the Public Elements is fully underwritten by ABN AMRO using the following structure: bonds $216m (sold down to Australian institutional investors), equity $15m (DAF Social Infrastructure Fund – a union-based industry fund) and construction finance $231m.

Table 5-9 Bid phase estimate of public elements

**BREAKDOWN OF PUBLIC ELEMENTS**

<table>
<thead>
<tr>
<th>DCEC Construction Cost</th>
<th>Value ($AUD million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base Building (DCEC)</td>
<td>75.3</td>
</tr>
<tr>
<td>FFE</td>
<td>4.6</td>
</tr>
<tr>
<td>Pre-opening Costs</td>
<td>5.2</td>
</tr>
<tr>
<td>Other Plant and Equipment</td>
<td>5.8</td>
</tr>
<tr>
<td>Sea wall &amp; Assoc. Activities</td>
<td>8.3</td>
</tr>
<tr>
<td>Prof. Fees / Contingency</td>
<td>12.5</td>
</tr>
<tr>
<td><strong>Total Construction Cost</strong></td>
<td><strong>$111.5 m</strong></td>
</tr>
<tr>
<td>Other Funding Costs</td>
<td>32.0</td>
</tr>
<tr>
<td><strong>Total Costs</strong></td>
<td><strong>$143.5 m</strong></td>
</tr>
</tbody>
</table>
Evaluation of PPP procurement structures – benchmarking delivery of a large public infrastructure project.

<table>
<thead>
<tr>
<th>CI Construction Cost</th>
<th>Value ($AUD million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Breakwater</td>
<td>19.5</td>
</tr>
<tr>
<td>Apartment Hotel Carpark</td>
<td>8.7</td>
</tr>
<tr>
<td>Underground Services</td>
<td>6.8</td>
</tr>
<tr>
<td>Public Domain &amp; Leisure</td>
<td>9.8</td>
</tr>
<tr>
<td>Preliminaries</td>
<td>5.5</td>
</tr>
<tr>
<td>Other Construction</td>
<td>15</td>
</tr>
<tr>
<td>Total CI Construction Costs</td>
<td>$65.3 m</td>
</tr>
<tr>
<td>Other Funding Costs</td>
<td>21.7</td>
</tr>
<tr>
<td>Total Costs</td>
<td>$87 m</td>
</tr>
</tbody>
</table>

**Annual Financial Commitment**

<table>
<thead>
<tr>
<th>Development Component</th>
<th>Value ($AUD million 2004)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCEC Availability Charge</td>
<td>11.3</td>
</tr>
<tr>
<td>Operating Deficit Charge</td>
<td>0.85</td>
</tr>
<tr>
<td>DCEC Asset Maint / Capital Ref</td>
<td>0.95</td>
</tr>
<tr>
<td>Operating Equity Buffer</td>
<td>0.3</td>
</tr>
<tr>
<td>Operator Management Fee</td>
<td>0.3</td>
</tr>
<tr>
<td>Operator Risk Premium</td>
<td>0.125</td>
</tr>
<tr>
<td>Community Infrastructure Availability Charge</td>
<td>7.72</td>
</tr>
<tr>
<td><strong>Total Annual Charge</strong></td>
<td><strong>$21.5 million p.a</strong></td>
</tr>
</tbody>
</table>

*Availability charges commence on completion of the development estimated in 2007/08

5.5 Detailed Further Offers 'Breaking the Deal'

During July – August 2004, the government entered into the process of interrogation of the consortia proposals prior to entering into detailed negotiations.

The government requested each consortium provide Detailed Further Offers (DFO) to facilitate selection of a preferred proponent. The DFO request was received on the 21 June 2004 with a response due by the 19 July 2004 and included the following matters concerning the consortium proposals received in general:

- Difficulty in understanding structure (cross default provisions)
- Deficiencies

<table>
<thead>
<tr>
<th>Reference Point in Project Procurement Continuum (above)</th>
</tr>
</thead>
<tbody>
<tr>
<td>EoI</td>
</tr>
</tbody>
</table>

Matters specific to the Darwin Cove Consortium detailed proposal raised by government where structured as per the detailed proposal Returnable Schedules (RS) and are presented in Appendix B.

Generally the government raised the following concerns over the DCCC proposal:
Incorporation of more local architecture, orientation, FF&E, security risk and completion date for DCEC
Reduction of buildings heights in master plan in proximity to existing escarpment
Clarification of elements delivered in stage 1 master plan
Performance of marine structures to resist erosion and wave action
Confirm costs of co-generation as part of ESD initiatives
Local industry participation tangible KPI’s to be set
Government contribution to DCEC to be fixed and clearly scoped
Further explanation of financial modelling figures for DCEC events to be provided
Demolition scope and funding clarified
Default termination position for all partners stated
Clarification of affect of DCEC availability payment in relation to meeting KPI’s
Reduce availability charges for DCEC to building cost only excluding infrastructure
Provide elemental cost breakdown of proposal including bid cost, contingencies and margins
Management of risk in regard to loss of DCEC operator
Single private element leader to be provided
Individual milestones and completion dates for stage 1 elements to be provided
Removal of provisional cost sums for CI elements

As the preferred proponent was not as yet announced, the DFO stage was subject to continued probity constraints of the bid phase conditions. So it was not possible to know what or if any request or the nature of such request was made to the two other consortia to provide a DFO.

During August the government and the consortium spent much time in Sydney brokering the deal in ABN-ARMO’s and Government’s legal advisor offices respectively. Government were undertaking their own due-diligence to understand the detailed proposal on offer examining such matters as the applicable scope for each elemental cost breakdown, value for money, risks, contracts and premiums. The Government was examining the consortium risk issues priced into detailed bid costs to ascertain if the risk was value for money or if the NTG were better placed to carry the risk.

Essentially the deal government were seeking involved the consortium reducing its construction and associated costs (including corresponding operating / availability annual charges to government) by $4M off the community infrastructure (CI) works and $5M off the DCEC works costs. Whilst the costs were not reduced a series of agreed target cost items were established to be resolved through design development through the Financial Close phase was written into the draft PDA.

Carrying forward any provisional cost (PC) sums to financial close was undesirable by government preferring guaranteed maximum price (GMP) sums for all project elements.

The key outcome of these backroom negotiations resulted in the Government removing the Community Infrastructure (CI) works of the public elements from the concession arrangement and turning it into a direct D&C contract with a GMP. This left only the DCEC as a BOOT arrangement. This came about because government had $100m to contribute to the project costs. This approach saved government ongoing annual availability payments but presented Government with the cost and time risk for undertaking the works through a more traditional form of contracting.

With this key break-through in the deal arranged between Government and the consortium partners, Government were then comfortable with the proposal and subsequently announced the Darwin Cove Consortium as the preferred proponent on the 17 September 2004. This moved the project procurement process into the Financial Close phase.
5.6 Financial Close

As the fourth and final stage of the procurement process observed in the results set, financial close was also the last phase of involvement for the financier led team before they handed over to the construction SPV partners. This intense phase culminated when the government and the preferred proponent agreed the project scope and signed a contract (the PDA) to enter into the delivery phase for the construction of the works. A key deliverable for the private sector during this phase was to obtain project approval (consent) through the relevant statutory authorities granting a development (construction) permit. Financial close ran from September 2004 through to 9 May 2005.

5.6.1 Defining Stage One of the Development

During September 2004, the NTG and the Darwin Cove Consortium as the preferred proponent, agreed to work through the outstanding details of the Bid Phase proposal and moved forward through a partnering arrangement over the following months to enable Financial Close to be achieved by jointly committing to resolution of the following matters:

- Reduction in costs for CI works by $4M and include the DCEC pad civil / build ready works
- Turn PC sums for CI components into GMP in particular the multi-storey car park, wave pool and cruise-ship terminal
- Reduce DCEC costs by $5M whilst incorporating government comments for DFO
- Agree methodology for disposal of marine sediment (muds) due to the harbour dredging works as part of the CI works and outline bathometric impacts for the breakwater construction
- Detailed geotechnical data under the footprint of the breakwater (underwater) to facilitate earthworks quantities for a GMP
- Provide sufficient levels of design documentation and supporting reports for the stage 1 project works necessary for development approvals from the Darwin Development Consent Authority (DCA) to enable commencement of construction activities

The Bid Phase nucleus of the (DCC) consortium split from the outset of the Financial Close phase. Each technical adviser was assigned to the separate SPV in order to develop the necessary scopes of works and PDA’s. Rather than a single entity the risks were spread across the three separate SPVs linked to each through the applicable PDA’s and deeds which would be in acted once the delivery phase commenced. This approach by ABN-AMRO is taken because they seek to pass on the design, construction and operation risk and require their assigned SPV partners to become used to managing such risks as soon as possible in the deal structure. This also allows ABN-AMRO to retract as consortium leader and put in place a management team to work under the future Project Director (PD) representing the Darwin Cove Convention Centre (DCCC). The PD manages each of the SPV partners ie the DCEC, CI/MI and Private components of the project to the satisfaction of the government.
To facilitate the change in the management structure from the Bid Phase, a Project Manager (PM) is appointed by ABN-AMRO to act independently across all the consortium partners. As any existing partner or consultant team is not considered independent as their loyalties are to their applicable client SPV.

The appointed PM represents both of ABN-AMRO SPVs contracted to government and is charged with driving all partners and consultants from the bid phase as they are arranged into the SPV partners to achieve financial close collectively as quickly as possible.

With the change to an external PM, ABN-AMRO negate the Bid Phase technical consultants previously engaged direct to them to a D&C arrangement under the umbrella of the developer SPV contracts for the convention centre (DCEC) and infrastructure (Marine and Community, MI / CI) components of the stage 1 works. The hospitality and residential developer has a direct contract to the NTG and is removed from the responsibility of ABN-AMRO SPVs.

There was some initial resistance to the consortium restructuring down into the SPV teams taking direction from the PM. This was particularly apparent with the DCEC SPV team lead by SBMJV who refused to acknowledge and take direction from the PM acting as the developer as this places a wedge between direct communication with the government which was previously enjoyed during the bid phase negotiations. SBMJV no doubt were frustrated with this approach as they were under pressure to resolve cost overruns through a third party in order to achieve financial close.

The restructuring from the bid phase team nucleus of the consortium into the SPVs going forward for the delivery of the project components is identified in Figure 5-5, which was adopted at the commencement of the financial close phase. The technical / design consultants remain unchanged from the final Bid Phase team.

The committed stage 1 of the DCW site development includes three main elements and will be staged over 15 years. It will include:

- The Darwin Convention and Exhibition Centre, with a 1500-seat capacity and 4000sq metres of exhibition space,
- Community facilities including seawall, wave pool, swimming areas, public promenade, parklands and picnic areas,
- Commercial developments, including a Medina hotel, harbour side cafes and restaurants and a staged residential development.
The $300 million Stage One of the development is to be completed by 2008 and includes the Darwin Convention and Exhibition Centre, most of the community infrastructure and commercial developments, including the 141-room Medina hotel, 138 residential apartments, restaurants and cafes.

NTG had difficulties in understanding its decontamination and environmental responsibilities set out in the approved EIS as it used generic development details without the knowledge of the consortium master plan. The consortium site master plan needed to be assessed to identify government’s extent of responsibility for further investigations.

Notable issues that arose included the approval of the dredge spoil location and land use requirements prompting removal of decontaminated material. The matter of disposal of the dredge spoil potentially could invoke a Formal Assessment if the planning objectives of the approved master plan were deemed outside the intended scope of the original EIS by the Environment Minister. The Environment Minister is advised by the NTG Office for Environment and Heritage (OEH), a body independent of the project delivery team. This would greatly impact upon the timetable to reach Financial Close.

5.6.1.1 Project Approvals and Planning

These works were largely driven by the PM with the aid of an external consultant engaged from Sydney. Connell Wagner became involved in providing the local NTG knowledge and review of Development Applications (DA) structure development. The key issue for the consortium was to understand and develop the DA structure and inclusions based on the requirements of NTG’s Department of Planning and Infrastructure (DPI), planning guidelines.

The true spirit of the partnering approach of a PPP arrangement started to become apparent through government’s willingness to assist the consortium in achieving the project approvals from relevant government agencies, to facilitate commencement of construction. This was
evident by DPI’s planning personnel providing advice and detailed guidelines, and reviews of
the draft content of the consortium’s development application.

Lodgment of DA’s and subsequent approval of DA’s is central to the signing of the Project
Development Agreement (PDA) between the consortium and the NTG – which is a critical
element to Financial Close. The lodgment of DA’s was scheduled for early December 2004 to
meet the bid program construction commencement date at start of next dry season (April
2005).

The NTG now started to massage the consortium master plan prior to the first viewing by the
public as part of the DA documentation. These matters include reduction of building heights in
relation to the adjacent escarpment to maintain existing view lines.

The appointed NTG government architect as agreed in the DFO process prior to the preferred
announcement, now engaged with the DCEC design team to resolve cost savings and to
produce a more Darwin look to the building. Local Darwin building features involving
corrugated sheeting, skillion style roofing with extended eaves and open external walls to
facilitate cross ventilation, referred to arguably as ‘Troppo’ architecture are the nature of such
features to be incorporated. These features assist with the creation of larger external areas to
the periphery of the building with increased areas of shade to enhance the el-fresco
functionality.

5.6.1.2 Environmental Approvals

The NTG provided regular briefs to the consortium team of the required project approval
process and program to avoid the risk of triggering an Ecological Risk Assessment (ERA) in
addition to the environmental impact study (EIS) process for which the NTG is contractually
obligated to provide.

The NTG does not have an established environmental protection agency or legislation. The
only environmental body (at the time) was the Office of Environment and Heritage (OEH)
which provided consent to the development based on the presented findings of the EIS. The
government appointed an independent environmental auditor and adopted the Victorian EPA
guidelines for the purpose of decontaminating the site to meet the requirements of the
consortium master plan.

The main focus of the environmental issues related to the impact of dredging the bay for the
breakwater construction and disposal of dredge material off site in either a deep sea confined
or unconfined dump, or to an alternative marine environment. Similarly the NTG needed to
satisfy the external environmental auditor that the site had been remediated to the intended
land use characteristics, ie residential or public open space.

An environmental consultant (URS Australia) was commissioned by the NTG to meet the
necessary environmental investigations, studies and reports required for the project approval
process. These works by URS pertained to issues which were related to existing conditions of
the site. As such the proposed development works needed to be understood for impacts upon
the existing environment and what these ramifications were to the NTG.

The dredging and disposal of the marine mud as a key element of the development had to be
resolved by URS/NTG to the satisfaction of stakeholders. Issues to be resolved in relation to
disposal of this mud included, understanding the toxicity of the mud and the impacts it may
impose on its receiving environment. Secondly it needed to be understood if the material
contained any unique organisms that may be specific to site and should be protected by some
means. Hydro-dynamic and ground water modelling formed part of this study to understand the changes to the site resulting from the proposed development footprint.

5.6.1.3 Environmental Approval Process

The proposed development of the Darwin City Waterfront Development was subjected to a formal environmental assessment under the Environmental Assessment Act 198 (NTG).

This included the preparation and assessment of an Environment Impact Statement, including the Draft EIS, Supplement EIS by URS Australia Pty Ltd and the Formal Assessment and Recommendation Report - Environmental Assessment Report #43 by the Office of Environment and Heritage (OEH) August 2004. OEH presented its conditions for project approval in the Assessment Report #43 providing a list of recommendations, including further guidance on key elements which detail required further investigation and specific management.

During this process, the proposed development and capability of the site, particularly the capacity of the land and water resources, was assessed. This was informed by a number of detailed investigations. As a result documentation produced during the EIS process provided a detailed description and assessment of the attributes of the site and identifies potential environmental risks.

Following the approval of the EIS (September 2004), there were ongoing studies and investigations which further informed the design and management framework process. Critical to this approval was the sanction by the Minister for Environment that the proposals did not require further formal assessment under the Environmental Assessment Act 1982. This included the proposed Marine Infrastructure works (reclamation, dredging and water quality etc) as a part of the Community Infrastructure works (open space, swimming lagoon, pools, boardwalks and paths, carparks etc).

Key environmental issues resulting from the development proposal that required mitigation and all activities on site, including construction and operation of the facility were to be subject to ongoing Environmental Management Plans. The following environmental issues as they relate to the proposed Stage 1 Residential/Mixed Use development included:

- Environmental Management Framework
- Soil Contamination
- Acid Sulfate soils
- Groundwater
- Hazard analysis
- Air quality
- Noise
- Terrestrial environment
- Heritage and archaeological.
5.6.2 Development of the Project Approval Process

Reference Point in Project Procurement Continuum (above)

During October 2004 the Consortium push to develop the full scope of infrastructure offered and based on previous agreed NTG instruction needed to remove all PC sums offered to the NTG from the Bid Phase. This required the consortium and the CI SPV to firm up the price accepted by the NTG in bid of $69M which was negotiated in the DFO phase in August 2004 with a $4 M discount.

Provisional sum items to firm the price were:
- Smith St Pedestrian Bridge
- Water Recreation Pools, including wave pool
- Shade structures

The consortium Financial Close Target was revised to the 31 December 2004.

The PM was responsible for securing the services of a specialist aquatic consultant to join the team to engineer the wave pool and develop the water recreation scope to provide a GMP for this component of the works.

5.6.2.1 Project Approvals and Planning

The structure and development of required project DA's began to firm with five applications envisaged as follows for Stage 1:

Public Elements
- Community Infrastructure
- Marine Infrastructure
- DCEC

Private Elements
- 138 Residential Apartments (Wharf One)
- Hospitality Precinct

A key issue to be resolved was the sloping breakwater wall footprint within the marine environs and subsequent demarcation areas for each DA. As the breakwater depth was not able to be locked in without geotechnical data identifying the appropriate founding layer depth, the footprint area had some uncertainty.

Draft DA’s were developed by the consortium for review by government agencies. The review outcome resulted in the documentation being held back as further details and supporting evidence were required to ensure a full explanation of works and impacts were provided for public consumption and to avoid rejection by the DCA.
5.6.2.2 Environmental Approvals
The consortium arranged access to NTG’s environmental consultant URS, through a tri-partite agreement to reduce timeframes and share the understanding of existing environmental conditions. Formation of a management framework for the proposed development to address the environmental constraints was produced with the help of this agreement.

5.6.2.3 Stakeholder Negotiations
The Government Waterfront Project Office was formally put in place and provided with additional personnel levels from that employed during the bid phase. This team provided a technical review and management capacity in working with the consortium to ensure at this stage that adequate consultation occurred with all stakeholders during the negotiation process.

Key stakeholders for the project included:
- Darwin Port Corp – Port Operator
- Australian Navy – Fort Hill Wharf Access for Naval / Army operations
- Customs / Immigrations – Cruise Shipping
- PowerWater – Service authority for electrical, water and sewer reticulation
- DIPE – NT Government State land development body roads and lands
- OEH – NT Government Office of Environment and Heritage
- Darwin City Council – future owner of public infrastructure.

The NTG Darwin City Waterfront project team and the consortium technical members commenced regular meetings with stakeholders to discuss the proposed development impacts and achieve an understanding of issues to be addressed to ensure the development proceeds smoothly. Similarly the stakeholders were regularly briefed on the elements of the development by the consortium members so as they could contribute to the understanding of the potential impacts to existing infrastructure and the environment.

A key stakeholder for the site was the Darwin Port Corporation (DPC) as they were relinquishing their role as land-lords and prime user of the site. At this juncture concerns were raised by DPC due to the significant impacts from marine structure construction activities imposed upon the remaining functioning wharves adjacent to the site. DPC also needed to understand the nature of the development and become comfortable with the impact upon their remaining infrastructure by the future changes in the land use of the site.

The new breakwater included in the marine infrastructure works DA imposed limitations to shipping movements and berthing at wharves and the possible hydrodynamic impacts to tide and current regimes were to be determined. The DPC required an understanding of the potential changes this structure may impose to navigation and pilotage of maritime vessels.
5.6.3 Development Application Preparation

The consortium with assistance from government agencies issued DA’s for the CI, MI and DCEC works during November 2004. The Residential and Hospitality components for Stage 1 were held back.

These DA’s were structured in the same way comprising a suite of project information including a critique of environmental studies to-date. What was to follow and impacts of the works and other development issues for the project structure were as follows:

- **Introduction**
  - Proposed Development
  - Land Ownership
  - Structure of Document

- **Existing Context**
  - Site Location, townscape, utilities services
  - Physical features and conditions

- **Development Proposal**
  - Objectives, description, design statement, materials and finishes, management

- **Development Assessment Criteria**
  - Planning scheme, amendments, suitability of land, facilities, amenity, public interest

- **Conclusion**
- **Supportive Documents**

Further detailed investigation and modelling by NTG commenced into the marine mud contamination levels and dredge / handling techniques to facilitate removal of 400,000 cu m of marine mud to a suitable disposal site.

Wave modelling and resolving further marine bathometric issues were the main focus of the consortium technical team. These studies were required to confirm marine structure design criteria and the quantities of fill for the proposed breakwater by determining the acceptable founding layer in the bay.
5.6.4 Detailed Site Investigations

With the release of the DA documentation for comment, more of the project details such as the master plan in December 2004 were placed into the public domain through media releases and parliamentary debate. Scrutiny over the master plan building heights was raised and caused much debate over the process due to the apparent private sector control ignoring past community concerns.

The Development Consent Authority (DCA) hearing was held to review the amendments to the current planning scheme (1999) to adopt the land use and planning scheme of the proposed development master plan.

Preliminary geotechnical investigations of the marine mud were completed and funded by the consortium. This information informed the founding level of proposed breakwater in Kitchener Bay to provide some certainty of dredging and excavation depths to calculate earthworks volumes and hence confirm the GMP for this portion of the MI works.

5.6.5 Development Application Supplementary Information Preparation

Government approval of the planning amendment for Waterfront Site was announced during January 2005. This completed all of government’s responsibilities to allow the development proposed by the consortium to proceed. The remaining actions were with the consortium to achieve DCA approval.

Supplementary information reports for each DA application (DCEC, MI, CI) was provided to the DCA by the consortium to address DA queries lodged by community members, key stakeholder and statutory authorities. A response was necessary prior to the DCA hearing in February 2005 to support the application and ensure the DCA did not reject or defer the application delaying commencement of construction and award of financial close. Concerns and queries provided by stakeholders for each DA included:

MI Application
Management of the proposed locked body of water
Contamination and acid sulphate soil management
Dredging issues in particular an appropriate disposal site
Effect of seawall of water and sediment movement and coastal sediment transport
Biodiversity
Neighbouring developments
Breakwater design
Clarification of building development infrastructure requirements
Adoption of an integrated environmental management system
Construction noise and lighting
Prevention of mosquito breeding during construction and in design of infrastructure
Security implications associated with vessel movement around marina
Navigation Considerations around the leeward face of existing wharves
Water and Sewerage infrastructure capacity to existing wharves
Handling, transport and disposal of dredged materials
Preservation of significant historical sites
Continued access by Defence to existing fuelling storage and wharf Ro/Ro infrastructure

CI Application
- Proposed road network improves car parking and pedestrian movement particularly adjacent to the DCEC site
- Intersection performance to be demonstrated
- Bus management
- Contamination and acid sulphate soil management
- Ownership and operational responsibilities of water recreation and car parking facilities
- Identification of subdivision development infrastructure requirements for ultimate water and sewerage demands
- Capability to manage waste from berthed military and cruise ships
- Development of master plans for water and sewerage reticulation
- Continuity of access to wharves and adjacent public areas
- Construction noise and lighting
- Prevention of mosquito breeding during construction and in design of infrastructure
- Preservation of significant historical sites
- Amendment of building heights adjacent to escarpment
- Need for NTG to update EIS to accommodate actual positioning of buildings
- Aboriginal custodians approval of works is required

DCEC Application
- Impacts upon operation of adjacent wharves and shipping navigation
- Public and alternative (non-private vehicle) transport provisioning
- Energy efficiency and climatic responsiveness
- Integrates with surroundings and desired future development
- Basement Car park circulation and layout
- Adequate undercover areas for shading and wet weather drop off
- Construction staging and noise management
- Integrated environmental management and operation details
- Contamination and acid sulphate soil management
HWE the principal contractor and consortium partner for the CI and MI works went into voluntary administration during January 2005. All technical consultants working on the public elements for HWE suspended all commissions to them and were engaged direct to ABN-AMRO/DCCC to ensure the financial close process is not derailed. Financial close and the entire deal was seriously jeopardised by the threat of this significant SPV partner pulling out if a third party buy-out could not be secured to continue their involvement in the project.

The DCEC DA submission lodged in November 2004 was withdrawn as significant changes to the building form are required because the D&C contractor (SBMJV) and the financier were unable to reduce the construction costs of the original proposal without significant architectural changes. SBMJV relationship with the bid phase architect (Crawfords TVS) became more frustrated due to their reluctance to adopt significant design changes to their original building form. Isolated individuals resorted to development of their own DCEC concept direct with CI/MI architects (Hassells) in which control was passed to the contractor. The outcome was a change in team architect and significant building elements were refined in response to external pressure from financiers to reduce costs to break the deal with government. The target lodgement date for the amended DA design was revised to April 2005.

Without all three DA’s approved, financial close was not achieved as a GMP for construction of each SPV work package could not be determined by the contractors without full knowledge of the conditions that would be imposed upon them during construction.

5.6.6 DCA Hearing February 2005

The DCA hearing for the MI and CI DA’s went ahead on the 23rd February 2005 without the DCEC application. This session was held to hear public and DCA member concerns of the DA and for the developer / consortium to address or take on notice such issues. The supplementary information report prepared addressed most of the concerns of the DCA and facilitated a smooth hearing.

ABN-AMRO and the PM decided to exercise their contingency plan to replace HWE and issue an information memorandum (IM) to selected companies to price the works intended for HWE in the event that they become insolvent and need to be replaced on the team. A preliminary set of engineering drawings and specifications are provided by all technical consultants to support the IM.

The pressure to achieve Financial Close becomes even more apparent with potential major team partners dropping out of the consortium deal. To bring in a new player, requiring time for full disclosure and due-diligence to occur at this juncture in the project would have imposed significant delays. So the envisaged best outcome the consortium was for a take-over of HWE which would maintain their personnel involvement under whatever new business form resulted.
The pressure built during March 2005 for all consortium SPV construction partners representing the MI, CI and DCEC components to complete sufficient design development to resolve the package interface issues. This was necessary for ABN-AMRO to inform government that the bid phase undertaking of achieving the reduced target costs was going to eventuate.

To facilitate the price reductions the consortium PM called a value management workshop (2 March 2005) to cut some $10M off the CI and MI budget to meet the government target cost. The construction and technical team determined that a significant sea wall alignment change was the only way a significant cost reduction could be tabled. Any significant changes from the already lodged DA application required a variation amendment to the MI DA permit. Again without this approval financial close was not possible.

To provide assurance to the construction partners to enable sign-off on a GMP for MI and CI works, the technical advisors were required to instigate internal verification of current design documentation for development of a schedule of risk issues and exposure in order to discuss mitigation measures and assign contingency. Major risks identified were:

- Earthworks volumes and rock armour sizes for the breakwater structure
- Increase in scope for water and sewerage infrastructure to meet authority approvals as part of the DA conditions
- Expected scope of contamination works to be completed as a result of not being undertaken by government
- Provision for realignment of existing bulk fuel handling pipeline

The DCA issued (9th March 2005) permit conditions for the MI and CI works allowing the consortium to commence construction once relevant conditions were satisfied. These conditions included:

**MI Works**

- Preparation of a Construction and Operation Environmental Management Plan framework (EMPF)
- Develop a coordinated program in consultation with relevant stakeholders for all essential service reticulation infrastructure
- Appoint a Health and Safety Manager
- Obtain a waste discharge license
- Agree maintenance of local roads used to access site
- Maintain water quality of harbour waters in proximity to site
- Provision of overspill public car parking
- Works undertaken during 6:30am-6:30pm Monday – Friday and 7:30am to 5:30pm on Saturday and Sunday
- Access to site only via Mavie Street
• All imported fill to be certified clean fill
• Provision of a site master plan, subdivision plan and staging plan for water and sewerage

**CI Works**

In addition to the above conditions:

• Amend road and car parking plans to accommodate recommendations
• Detailed plans for shade structures, pedestrian bridge link and water recreation facilities
• Details of interface of road with existing heritage steam pump house

Government environmental specialist (URS) finalised the decontamination scope and impacts upon the proposed development in the form of a Remediation Action Plan (RAP). This document detailed Government’s responsibility to remediate the site to address the layout of the consortium master plan open space and building footprint locations.

To the benefit of the consortium team, HWE’s Darwin operations were bought out by Macmahon Contractors (18th March 2005) a Perth based national mining and civil contracting operation. This was the best possible outcome given the predicament faced by the consortium, causing minimal impact to the timeline of achieving financial close.

The Darwin City Council announced their objections of any possible takeover of ownership public elements once constructed by government. The Council’s position was based on their belief that another swimming pool was not required in Darwin and would impose an unnecessary burden on the taxpayer.

The NTG was left to establish its own body corporate / council to take over responsibility of the site and in particular the operations and management of the common public elements of the development site, such as the multi-storey car park, water recreation (incl. wave pool), breakwater and public domain elements.

The only matter now holding up financial close was the DA approval for the DCEC. The DCEC SPV team targeted re-lodgment of the amended DA application for early April 2005.

### 5.6.8 Breaking the Deal

<table>
<thead>
<tr>
<th>Stage 1</th>
<th>Stage 2</th>
<th>Stage 3</th>
<th>Stage 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>EoI</td>
<td>Bid Phase</td>
<td>DFO</td>
<td>Financial Close</td>
</tr>
<tr>
<td>AUG 2003</td>
<td>MAY 2004</td>
<td>SEP 2004</td>
<td>MAY 2005</td>
</tr>
</tbody>
</table>

Reference Point in Project Procurement Continuum (above)

The amended DA for the DCEC was lodged and the public hearing for the development scheduled in early May 2005. Throughout April 2005 the process of negotiation took place again in Sydney (as it did during the bid phase) between the consortium equity partners (SPVs), legal and financial advisors and government’s key personnel and advisors. The consortium could only provide savings of $7.5M (as opposed to the $10M target) for the MI and CI portion of the works. Government closely scrutinised the scope to further detail exactly the materials and specifications to agree that each
elemental cost schedule was providing value for money against scope of works. The negotiation process with the DCEC SPV went on for nearly two continuous weeks before a deal was struck.

### 5.6.9 Signing of Contracts

5.6.9 Signing of Contracts

![Diagram of Project Procurement Continuum]

**Reference Point in Project Procurement Continuum (above)**

The DCEC DA application was accepted on issue of conditions precedent by the DCA in early May 2005 and allowed financial close to be achieved as of the 9 May 2005.

In relation to the CI PC sum elements, NTG and the consortium agreed to proceed with execution of contracts with these PC sum amounts included. This course of action was agreed, as the time for development of a detailed design to a sufficient level to provide a GMP would have taken several more weeks for the wave pool structure in particular.

NTG were now determined that reaching financial close was more important than resolving PC sums and in order to meet the opening dates for the DCEC in early 2008, construction of the earthworks for the building foundations needed to commence immediately.

Waterfront Work Starts (NT News, 10 May 2005), “Construction work on the $1.1b Darwin City Waterfront development will start today after the deal was signed off yesterday. The Territory taxpayer contribution has doubled to almost $200 million – to be spent over the next three years. But the NT Government was expected to get property returns valued between $62 million and $88 million over the 15-year life of the projects. The net cost to the taxpayers is tipped to be as much as $144 million. After signing off on the financial closure, Chief Minister Clare Martin said “It’s really is a most magnificent project for Darwin. It means we will have a new dimension to our city – this is a very significant day.”

**Table 5-10 Financial Close commercials**

<table>
<thead>
<tr>
<th>Stage 1 Component</th>
<th>Bid Cost ($M)</th>
<th>Financial Close ($M)</th>
</tr>
</thead>
<tbody>
<tr>
<td>DCEC (Concession Period of 25 years)</td>
<td>143.5</td>
<td>102.8</td>
</tr>
<tr>
<td>Community Infrastructure*</td>
<td>87</td>
<td>94.6</td>
</tr>
<tr>
<td>Residential and Hospitality (estimated)</td>
<td>116</td>
<td>103</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>346.5</strong></td>
<td><strong>300</strong></td>
</tr>
</tbody>
</table>

* - includes provisional sum allowances of 33 mln for wave pool, multi-storey car park, avenue of honour, and public domain.

The cost reductions to the DCEC package included: removal of bulk earthworks / reclamation (undertaken by CI/MI contractor), changes to the roof super-structure, alternating a tanked reinforced concrete basement with block work stub walls and reduction of the extent of automatic fire detection sprinkler system.
Cost reductions to the MI & CI packages included: narrowing of breakwater resulting in a reduction in fill material quantities, alternative cheaper fill material sourced, reduction in rock armour sizes and disposal of dredged material to an on land option via a pipeline in lieu of a deep sea disposal location using barges.

The cost risk of the Residential and Hospitality precincts are indicative only and provided as a means for the extent of commitment by the developer who would assume all cost risk and scope acceptance.

Figure 5-6 Financial Close Contract Structure
5.6.9.1 Milestone Dates
The critical dates for the CI D&C Contractor were:

- Completion and handover of DCEC pad 14 November 2005
- CI Works Complete 31 December 2006
- Completion of Services connections for DCEC Site to commence building services commissioning works to commence from May 2007
- DCEC open April 2008

5.6.9.2 Contract Structure
The agreed form of the contracting structure is provided in Figure 5-6. This structure is divided vertically by the public (DCEC, MI and CI) and private elements (residential apartments and hotels), which have very different contracting structures.

The MI and CI works basically cover the build ready elements of the development site, including the bulk earthworks for the DCEC building, marine breakwater, open space landscape / hardscapes, roads and essential infrastructure services.

In essence the government were now contracting with three entities, Darwin Cove Convention Centre P/L and Darwin Cove Community Infrastructure P/L (both ABN-AMRO entities) and the Toga Group for the DCEC, CI/MI works and the residential / hotel elements respectively. These ABN-AMRO entities then entered into D&C arrangement with contractors SBMJV for the DCEC works and Macmahon Contractors for the MI/CI works.

The contracted PPP elements of the DCEC include the construction, facilities management and operational management including marketing for a 25 year period. The DCEC was the only package of the entire development which was contracted using a BOOT mechanism and private finance, under a long term service agreement with government.

There was a warranty to be provided by the CI contractor to the DCEC contractor that the pad works for the building are fit for purpose so that the ground works are isolated from the responsibility of DCEC concessionaire.

5.6.9.3 Consortium Bid Expenses
Anecdotal evidence suggests the final consortium cost for involvement in the project up to the end of the Financial Close (May 2005) phase totalled near $14 million, however this can not be substantiated at this time. Indicative costs calculated in October 2004 some seven months before financial close are presented in Table 5-11.
Table 5-11 Consortium Bid Expenses

<table>
<thead>
<tr>
<th>Cost Centre</th>
<th>Bid Phase</th>
<th>Development Application</th>
<th>Financial Close</th>
<th>Total Fee</th>
</tr>
</thead>
<tbody>
<tr>
<td>Architectural</td>
<td>$417,104</td>
<td>$213,900</td>
<td>$330,532</td>
<td>$961,536</td>
</tr>
<tr>
<td>Public Art</td>
<td>$1,100</td>
<td></td>
<td></td>
<td>$1,100</td>
</tr>
<tr>
<td>Engineering</td>
<td>$280,529</td>
<td>$168,361</td>
<td>$220,360</td>
<td>$669,250</td>
</tr>
<tr>
<td>Environmental</td>
<td>$111,413</td>
<td></td>
<td>$200,000</td>
<td>$311,413</td>
</tr>
<tr>
<td>Gov Fees</td>
<td>$2,000</td>
<td>$20,000</td>
<td></td>
<td>$22,000</td>
</tr>
<tr>
<td>Financial</td>
<td>$127,387</td>
<td></td>
<td>$578,456</td>
<td>$705,843</td>
</tr>
<tr>
<td>Tourism</td>
<td>$9,266</td>
<td></td>
<td></td>
<td>$9,266</td>
</tr>
<tr>
<td>Legal</td>
<td>$295,251</td>
<td>$895,659</td>
<td>$1,190,910</td>
<td></td>
</tr>
<tr>
<td>DCEC SPV</td>
<td>$652,788</td>
<td>$962,462</td>
<td>$1,615,250</td>
<td></td>
</tr>
<tr>
<td>CI SPV</td>
<td>$283,901</td>
<td>$407,528</td>
<td>$691,429</td>
<td></td>
</tr>
<tr>
<td>Planning</td>
<td>$26,000</td>
<td></td>
<td>$26,000</td>
<td></td>
</tr>
<tr>
<td>Project Mgmt</td>
<td>$177,000</td>
<td>$235,100</td>
<td>$105,900</td>
<td>$518,000</td>
</tr>
<tr>
<td>Public Relations</td>
<td>$195,084</td>
<td></td>
<td></td>
<td>$195,084</td>
</tr>
<tr>
<td>Promotional</td>
<td>$105,614</td>
<td>$30,000</td>
<td></td>
<td>$135,614</td>
</tr>
<tr>
<td>Property</td>
<td>$152,220</td>
<td></td>
<td></td>
<td>$152,220</td>
</tr>
<tr>
<td>Quant. Survey</td>
<td>$97,688</td>
<td></td>
<td>$29,306</td>
<td>$126,994</td>
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<tr>
<td>Miscellaneous</td>
<td></td>
<td></td>
<td></td>
<td>$50,000</td>
</tr>
<tr>
<td>Grand Totals</td>
<td>$1,860,243</td>
<td>$1,741,463</td>
<td>$3,780,203</td>
<td>$7,381,909</td>
</tr>
</tbody>
</table>

5.6.9.4 Project Milestones

A summary of project milestone dates as they developed and changed throughout the procurement process is presented in Table 5-12. This table highlights the differences between what government wanted to achieve through this project ie ‘planned’, with what the private sector was able to provide ‘offer’ and negotiate ‘contracted’ in the final project delivery agreement (PDA) with government (actual / revised column).

The delays in the timeframes of the project, particularly financial close, commencement of construction and ultimate operational date for the DCEC and CI works changed significantly. The DCEC availability charge, the ongoing cost of the delivered facilities to government, was able to be negotiated to an ‘acceptable’ value-for-money position through passing of non-building elements over to the MI and CI works. The overall value of the project increased due to revised land valuations at the time of financial close. As the MI and CI works were delivered separately from the DCEC works under a sub-contract D&C arrangement, the bulk earthworks, marine structures and various provisional cost (PC) sum items where packaged together for ongoing design development with delivery risk assumed by government. These PC items included the public domain (PD), water recreation / wave pool facility (WR), cruise ship terminal (CST), pedestrian bridge (PB) and multi-storey car park (CP).
<table>
<thead>
<tr>
<th>Milestone</th>
<th>Procurement Stage</th>
<th>(A)Actual or (R)revised</th>
</tr>
</thead>
<tbody>
<tr>
<td>Preferred Proponent</td>
<td>EoI (Planned) June 2004</td>
<td>(A) September 2004</td>
</tr>
<tr>
<td></td>
<td>Bid Phase (Offer) June 2004</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Financial Close (Contracted) -</td>
<td></td>
</tr>
<tr>
<td>Financial Close</td>
<td>December 2004</td>
<td>(A) May 2005</td>
</tr>
<tr>
<td>Commencement of Construction</td>
<td>February 2005</td>
<td>(A) July 2005</td>
</tr>
<tr>
<td>DCEC Operational</td>
<td>November 2006</td>
<td>(R) 1st QTR 2008</td>
</tr>
<tr>
<td></td>
<td>December 2007</td>
<td></td>
</tr>
<tr>
<td></td>
<td>1st QTR 2008</td>
<td></td>
</tr>
<tr>
<td>Community Infrastructure Works Complete</td>
<td>Late 2006</td>
<td>(R) late 2008</td>
</tr>
<tr>
<td></td>
<td>End 2006</td>
<td></td>
</tr>
<tr>
<td></td>
<td>December 2006</td>
<td></td>
</tr>
<tr>
<td>Concession Period</td>
<td>20-25 years</td>
<td>(R) 25 years</td>
</tr>
<tr>
<td></td>
<td>25 years</td>
<td></td>
</tr>
<tr>
<td></td>
<td>25 years</td>
<td></td>
</tr>
<tr>
<td>Availability Charge p.a.</td>
<td>NA</td>
<td>(A) $3M</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Consortion Commitment</td>
<td>$600M</td>
<td>(R) $1.1b</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(including land value $210M 2005)</td>
</tr>
<tr>
<td></td>
<td>$846M</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$800M</td>
<td></td>
</tr>
<tr>
<td>NTG Contribution</td>
<td>$100M</td>
<td>(R) $354M</td>
</tr>
<tr>
<td></td>
<td></td>
<td>(including land value 2005)</td>
</tr>
<tr>
<td></td>
<td>$100M</td>
<td></td>
</tr>
<tr>
<td></td>
<td>$144M</td>
<td></td>
</tr>
<tr>
<td>Value of PPP Component</td>
<td>$200M</td>
<td>(R) $103M</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value of Community Infrastructure Works</td>
<td>$100M</td>
<td>(R) $120M</td>
</tr>
<tr>
<td>(remaining public elements)</td>
<td></td>
<td>(includes $64 M +$14M PD</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$15M WR</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$4M CST</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$3M PB</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$10M CP</td>
</tr>
<tr>
<td>Value of Residential Component</td>
<td>-</td>
<td>$116M Stage 1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$500M Stage 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td>$103M Stg 1 Stage 2</td>
</tr>
</tbody>
</table>
The case study presented in this section has demonstrated the workings of a PPP project in Australia. This was based on observations made from the successful private sector consortium team involved in the Darwin City Waterfront (DCW) project in the Northern Territory.

The DCW project was unique due to it being the first PPP under the NTG PPP policy, a mixed use development, a complicated commercial arrangement and unresolved project provisional sum elements at financial close. None-the-less this project provides a typical Australian PPP project example. This case study is analysed in proceeding sections by evaluating the case study design and outcome against the benchmark model criteria established from the PPP literature.
6. ANALYSIS OF CASE STUDY

This section presents an evaluation of the benchmark criteria (noted in italics from Table 2-1) as determined by a literature review, against the project case study presented in section 5.

This comparison evaluates Australian practice with the benchmark criteria / world-wide best practice and provides recommendations for structuring the design and outcomes for PPPs as presented in subsequent sections.

6.1 Procurement Approach

PPPs typically use BOOT (Akintoye et al. 2003) or a DBFO contractual arrangement where private finance is involved.

The Darwin City Waterfront (DCW) project used a BOOT arrangement to partner with the private sector to provide a new convention centre (DCEC) (section 5.6.9.2). The government opted out (section 5.5) of the private sector offer to expand this scope to include the supporting civil works and adjacent public domain (Section 10. Appendix A – 5 Business Plan). Instead the government used novated D&C arrangements and funded the works from public funds. Therefore only the DCEC component was delivered via BOOT and the remaining components under traditional contracts as discussed in section 5.6.9.2 and 5.6.9.4.

Although there are other commercial contract considerations, such as fixed price, cost reimbursable and mixed incentive contracts within the available mix of contracts, von Branconi (2004) finds that the LSTK contracts like the BOOT and DBFO are more favoured by clients for large infrastructure projects.

A partnering approach is likely to have been greater VfM to share the high risk civil works which comprised of decontamination and marine works discussed in section 5.4.1.4 and 5.4.3. This approach is likely to have avoided the delays in CI works construction program whilst disputes were resolved over scope and means to address cost over runs as shown in Table 5-12.

Packaging the entire scope of works, MI, CI, DCEC and residential components into a BOOT did not achieve VfM in government’s (NTG) assessment during the DFO process as demonstrated by the exchange of issues in section 11. The MI and CI contracts used a novated D&C arrangement and the Residential elements developed via a development license adopting a Managing Contractor (MC) approach (Figure 5-6).

6.2 Structure, Contractual Arrangements and Government Frameworks

Private sector forms a consortium and establishes an SPV to deliver project elements (Akintoye et al 2003) through a four stage tender process unique for each project (Sharp, 2005).

The procurement process follows guidelines which are not specific enough to suggest the use of non-adversarial frameworks for large projects. This was evident by the multiple entities engaged under different procurement arrangements such as BOOT and D&C using lump sum and provisional cost sum arrangements (Section 5.6.9.2) which dissuade contractual flexibility compared to an alliance partnering arrangement. The extent of the partnering arrangement is limited to risk allocation or responsibility for a problem, should it occur, rather than working together to solve the problem for the benefit of the project.

An example of this lack of partnering approach was evident in the contract with government and the CI developer SPV. If government questioned the fitness for purpose of any element of the works, they could
instruct the developer to undertake testing to satisfy the government of conformance. The party proven at fault would bear the testing costs and be liable for costs and delays to rectify the situation.

The financial close phase of the DCW is used to develop the project requirements and risk identification, similar to requirements used to tender for a D&C contract, only more rigorous. This creates a similar adversarial arrangement during construction. A BOOT arrangement provides incentives to the contractor to provide quality workmanship and materials to reduce ongoing maintenance costs (in the case for the DCEC) however this was lost elsewhere on other project components where engaged under a D&C arrangement.

The NTG procurement process used to involve the private sector in the project was well run and kept to stated timeframes in general (Table 5-12). The financial close phase was delayed by up to six months and arguably only achieved the May 2005 date so the government could use the project award as political propaganda for the June 2005 elections. Nonetheless the content of the returnable schedules set by government (Table 5-3) requested deliverables such as expensive scale models and four hour presentations which vary from project-to-project, “..the non-standard nature of contractual documentation for most PPP projects is one of the factors which contributes to the high costs of bidding for PPP projects” (Vann 2004, pp.15).

6.3 Costs of PPP and the Public Sector Comparator

The PSC is prepared through an outline business case (OBC) process to provide government with the gateway check that a PPP is an appropriate delivery mechanism (Leiringer 2001) and VfM.

The DCW PSC was completed but only functional elements released to proponents in the form of a summary report (PWC 2003) as the PSC contained criteria of how government should select its private sector partner (section 5.2.3). The justification to the wider public for the PPP approach was kept to internal government circulation. The NTG decided from the PSC study that a PPP was the best way forward with a commitment of $100m to the project and a land concession (section 5.3.1).

The $144m government contribution will likely be exceeded due to the contractual mechanism used to deliver the CI components without providing incentives to the contractor to save money. This has created a public concern over the use of the PPP approach as the private sector is perceived to be driving the project details rather than government on behalf of the public interest.

Criticism by the opposition government (December 2004) into the agreed concept plan developed by the private consortium and put on display in the form of a model accused the government of passing control of the development to the private sector and losing control over what was included in the development (section 5.6.4). This dissatisfaction by the opposition may be due to the government using a PPP procurement model for the development instead of the tax-payer funded model preferred by the opposition. In particular the opposition claims the developer has increased building heights to maximise private profits over those interests of existing land owners (section 5.2.2).

Furthermore the government has been criticised for not engaging a key stakeholder of the wharf precinct the Department of Defence, who are major stakeholders at the Wharf and adjoining properties (section 5.2.2.1). Existing pipelines enabling navy vessels at the wharves to be refuelled from the tanks atop of Stokes Hill, run through the proposed development site presenting a consultation headache for the government which need not compromise Defence’s interests in the Territory when the local economy needs all the assistance it can get – the question this raises is whether the government knows what it is doing? (Darwin Research Centre 2005).
6.4 Design and Construction Risk

Government when reviewing major project risk seek to transfer as a general rule design, construction and operation risk to the private sector (Akintoye et al. 2003, Private Finance Panel 1995).

For the DCW project the private consortium assumed generally all design and construction risks based on an extensive geotechnical investigation undertaken during financial close (section 5.6.4), to determine a suitable foundation layer under the marine sediments for which the breakwater could be constructed upon.

Although the NTG undertook an intensive investigation process as part of the EIS requirements (section 5.3.1.5 and 5.6.1.3), the probity nature of the bidding process restricted the consortia details from being considered by the government environmental consultants until after financial close was achieved.

Much established knowledge is written regarding risk and value management for PPPs (eg. Akintoye et al. (2003), Bing et al. (2004) and Grimsey et al. (2001)) as these techniques are employed to allocate cost in devising the financing mechanism to achieve financial close. Yet little consideration is provided for the most suitable contracting arrangement to deal with the complex technical nature of a project to ensure success.

Financial close requires all construction risk to be priced (section 5.4.4.2) and passed from the consortium financier to the construction partner. This allows the financier to take a back seat through the remaining delivery and operation phase of the project. The design development is not complete and continues to progress with construction placing the entire carriage of unforeseen site risks on the construction partner. This either leaves the construction partner ‘high-and-dry’ or imposes unnecessary risk premiums upon government to cover all possible construction eventualities. However this is the nature of the D&C arrangement to which the construction partner has agreed, placing them in an adversarial position with government and with no support from the once consortium leader who has done the deal and passed on the risk to those best able to deal with it. At financial close the deal may be well structured and locked in to support private financing arrangements covering all possibilities through construction and operation, but the mechanism to deal with unforeseen construction eventualities is approached from a selfish perspective to protect each parties rigid commercial position unlike a partnering arrangement done in the spirit of ‘best for project’. This arguably erodes VfM presented at financial close if both private and public parties become embroiled in a long waging struggle to achieve the PDA’s (as presented in Figure 5-6) required of each party in an arduous environment.

Decontamination and removal of existing wharf refuelling services were not risks assumed by the private sector in the DCW project.

6.5 Stakeholder benefits

Community benefits when infrastructure is provided sooner and of a better standard providing greater functionality of the site by increasing the public amenity (Burrow, 2002).

Fast track construction of the DCEC allows for operation of the facility within 5 years from start of PPP EoI process (Table 5-12). Other benefits of the PPP approach for the DCW project include a fully developed, committed and funded master plan for the entire 25 hectare site staged over a 10-15 year construction period (section 5.6.1).

Under a PPP consortium structure (Figure 5-6) in place to financial close, access to specialist skills needed to address all aspects of the development to provide the means to master plan the entire site locking in the strategic planning guidelines was achieved. This meant the long term nature of the development was assured to the public through consultation during the development consent approval process (section 5.6.1.1). As the team is in place delivering the construction of the facilities, the public is provided a greater
assurance that with suitable market forces the entire site redevelopment would be achieved rather than in a piecemeal approach more likely under traditional contract forms constrained by public funding.

6.5.1 **Enhance government’s capacity to develop integrated solutions**

*Procurement of infrastructure without confines of public coffers (Perspective 2004) allows for a greater number of projects to be delivered (Akintoye et al. 2003).*

The DCW project delivered several other supportive elements for the DCEC such as public accessible park lands, hospitality precinct, hotels and an aquatic precinct including a wave pool as part of the stage one commitment (refer Section 10 Appendix A, item 10 Proponents Requirements of the Department/Territory – Provisional Sum items).

These additional components were able to be delivered concurrently due to the capacity for the private consortium to provide the technical skills, resourcing and the contractual interfaces. The build ready works including the land decontamination and the reclamation of land to form the building pad for the DCEC was funded by government under the CI works valued at $95m. This decision was made by government during the DFO process in order to reduce its annual availability charge for stage one works to just the DCEC component for a 25 year concession period (section 5.5).

6.5.2 **Facilitate creative and innovative approaches**

*Additional built in functionality and improved lifespan of delivered asset (Perspective 2004).*

Facilities management (FM) services and serviceability key performance indicators (KPI's) are fundamental to the PPP deal for the DCEC over the 25 year concession period. The building contractor has materials and workmanship issues in mind over the full life-cycle costs of the asset under a PPP arrangement rather than the usual one year defects liability period typical under traditional contract arrangements.

Arguably the aquatic precinct comprising a wave pool and an enclosed static water body created by a 500m long breakwater structure in the harbour, were features of the consortium master plan that won them the project. Indeed when the project details were made public the front page of the local Darwin newspaper headlined “Waves, beach at $1b centre” (NT News, 10 February 2005, p.1) making only a passing reference to the much need stimulus to the local economy provided by the centrepiece $103m convention centre.

However unlike other convention centres developed in Australia which have achieved a six-star green star building rating (section 3.8.1.1), ESD initiatives proposed by the consortium (section 10 Appendix A - 3 Sustainability), in particular co-generation and grey water reuse systems were not included into the design development in order to reduce annual availability costs payable by government.

It was evident through the financial close negotiations that the consortium technical team was under pressure to reduce DCEC construction costs through changes to the building architecture and finishes (section 5.6.5). This led to the original consortium architect Crawfords TVS, being replaced with Hassell architects to provide a fresh look at the concept design for the DCEC which resulted in construction savings.
6.5.3 Reduce the cost to implement the project

The PPP cost benefit is greatest in regards to reductions in project timeframe and risk allocation saving 20-30 percent when compared to traditional means (Jones 2002, Perspective 2004).

All bid costs (section 5.6.9.3) were carried by the private sector and involved the design development sufficient for the consortium to provide government a fixed lump sum price. This allows for private financing structures to be arranged, facilitating financial close and immediate commencement of the delivery phase.

The only up front costs for government to implement the DCW project consisted mostly of tender documentation production and tender administration, and also the environmental process costs including production of the EIS and decontamination of the existing site (estimated at $3 million).

The ultimate cost to taxpayer did increase as the project was delivered to $144m, from $100m estimated at the inception of the project (Table 5-12) with the value of stage 1 reducing from $346.5m to $300m (Table 5-10). The taxpayer costs exclude public servant management and decontamination expenses stated above for rehabilitation of land in readiness for reuse and construction. For the convention centre concession the government will incur an ongoing annual payment of $3m for 25 years (Table 5-12). However these costs are offset by the royalty payments received by government totalling in the order of $64.5m for apartment sales (Table 5-8).

The Allen Consulting (2007) cost saving figures for a PPP over traditional procurement range from 30.8-11.4 percent. The former figure demonstrates that the tendering phase or pre-financial close period is where the real cost saving occur for the public sector. However a true indication of the most efficient measure of a project’s procurement structure is the VfM assessment (Lin 2005, Clifton 2006) which is examined further in section 6.3.

6.5.4 Reduce Project Timeliness

Time reduction is achieved using PPPs by producing efficiencies in the procurement process (Akintoye et al. 2003) through the ability to complete the project ahead of time (Allen Consulting 2007).

Once financial close was awarded for the DCW project, construction commenced as the necessary approvals were in place. This stage was reached without development of full design documentation which occurs concurrently with construction (Tables 5-1 and 5-12). Elements of construction were staged until supportive information required from the project approvals process could be provided which included additional supportive investigations in some cases (section 5.6.2.1).

Government assumed the risk for obtaining and funding the EIS approval process in parallel with the private sector tender call and financial close periods (Table 5-1). This approach was criticised by peak non-government groups as a backwards approach as the details of the development were not concurrently developed in parallel with the environmental approval process (section 5.6.1). Instead the community were only provided draft project proposal details for which to comment on. Due to the tender call probity constraints, private sector bid details could not be released for public dissemination until the preferred consortium was announced (September 2004). The preferred project master plan scheme details were then developed through the negotiations between government and the consortium leading to financial close. The government worked in partnership with the private sector to obtain development approval (DA) through the independent planning authority in the Northern Territory the Development Consent Authority (DCA).
On the surface the DCW process post-financial close follows a D&C process (section 5.6), which is noted as a quick to market approach to involve the private sector. However a D&C arrangement is high risk to government where uncertainties and complex matters remain unresolved (section 3.2.1). Additional cost and disputes may eventuate resulting in project delays and increased costs. The financial close process in the PPP procurement process effectively runs until all uncertainties are resolved or passed to the party best suited to carry the risk and locked in for execution in the delivery phase (section 3.6).

The DCW DCEC component under a BOOT arrangement is scheduled for completion on time as per the private sector construction program (1st qtr 2008 – Table 5-12). Government greatly underestimated the completion date (November 2006) in the EoI documentation they produced. It is unlikely that government would not have considered that reclaiming land would be necessary in the preferred master plan preparatory civil works, when determining the planned milestone date.

Government has been faced with delays on other DCW project components, particularly the CI works delivered under a novated D&C arrangement. Budget cost over runs (section 5.6.9.4) requiring changes to the scope of agreed works to achieve budget is delaying the construction and hand over for public use. The inevitable result will be to delete some elements such as the fully shaded walkways in the public spaces, which were identified through the public consultation process as key requirements for public endorsement. Had a PPP arrangement been utilised for all project elements, serious contractual and commercial ramifications would have been enacted due to any reductions in project scope. This implies that a form of guarantee for the works is provided to government by the SPV as per the full scope of works in the financial close agreement.

6.5.5 Transfer certain risks to the private project partner

Design, construction, commissioning, operating, ownership and financing risk is passed to private sector under a PPP structure (ABN-AMRO 2003).

The BOOT deal for the DCEC has been uncontroversial and for the most part out of the media’s attention. This is because these risks have been transferred to the SPV responsible for the DCEC. As a result this has restricted government’s involvement in the design development process beyond financial close or penalties for changes would be incurred. This has allowed the DCEC SPV to deliver the works by achieving the minimum PDA requirements from a contractual perspective. As mentioned previously, other components delivered under more traditional means have been delayed due to financial, operating and ownership risk remaining under government management, constrained by allocated budget amounts.

Government through the DFO process (section 5.5 and Appendix B in section 11) negotiated at financial close for the public elements under the CI works to be removed from the PPP concession arrangement. This meant that the design development risk of the multistorey car park and wave pool remained with government which is now faced with a cost blow out. This has been highly publicised of late (in Hansard) and the government is facing criticism for diverting public funds away from other services in the community in order to cover additional funding for these elements in the development.

6.5.6 Attract Expertise to the Project

Expensive bid costs combined with a unique tender process and requirements for each project restricts involvement from small organisations (Sutherland 2002) unable to cope with the risk of throwing away many millions of dollars in bidding this work.
In bidding and reaching financial close for the project, the DCCC consortium incurred significant costs in the order of 2-3 percent (circa. $14 million) of the project capital cost (section 5.6.9.3).

Bid costs ultimately are factored into the overall project costs when the private sector calculates its fees to government, so it’s in the public sectors best interests to keep these costs low when considering tender call requirements. The NTG provided a consolation fee of $250,000 for unsuccessful bidders, which was an insignificant amount in comparison to actual bid costs.

The DCCC consortium was arguably the only consortium that was able to make this complicated deal stack up within the bid phase period by providing the required full team capacity and demonstrating the supporting operational term sheets for all components of the proposal (section 10 – Appendix A). This perhaps provided government with the confidence to work with this consortium over others.

Government was prescriptive and detailed about the DCEC requirements within its Detailed Bid Documentation (Section 5.4), down to the functionality and space sizes within the convention centre building. The supportive elements comprising the bulk of the development site footprint however were only described in general terms (output based) around the public consultation comments supported by a basic master plan land use concept issued at the EoI stage (section 5.2.3). Therefore the private sector was faced with the task of master planning a scheme to provide enough details of development to fund, build and operate (section 5.4.2.2 and table 5-3). The bid documentation was structured around meeting governments master plan of a centrally located convention centre without information of marine mud depths, decontamination scope and a draft EIS (section 5.4.1.1).

Understanding government’s bid document requirements (Table 5-3) was difficult for the consortium. The time provided was short (five months as per Table 5-4) and without the ability for direct stakeholder negotiation (outside the assigned government project team members) it was difficult to obtain an understanding of existing site uses and constraints to develop an innovative and alternative master plan approach from that of governments vision. Sizing and scoping the stages for delivery presented the problem of identifying necessary elements to support the build which would be included in the first stage. These difficulties included understanding the scope of demolition of existing site infrastructure ranging from industrial sheds, wharves, fuel lines and whose responsibility it was if it was within the footprint of the stage 1 works (section 5.4.1).

Highly detailed and expensive scale models of both the full master plan development and of the Convention Centre (DCEC) were also needed to support each consortia bid (Table 5-3).

6.5.7 Access Skills, Expertise and Experience

PPP delivery allows government to focus on core delivery services and not major projects (Jones 2002; Larocca 2004; Perspective 2004; Vann et al. 2004) by entrusting the private sector through a long term partnership approach.

The DCW project provided the opportunity for long term contracts and partnerships to be created with a secure source of income for both equity partners and advisors and consultants to the SPVs. These partners were generally seen to remain with the consortium from the outset EoI phase through financial close to the delivery phase, by comparing Figure 5-2 with Figure 5-5 for the EoI and Financial Close organisation structures respectively.
The continued presence of the same team provides efficiencies over traditional contract forms such as DBB and D&C, where at each stage a tender is let for new participants (section 3.2.1).

The preparation of detailed proposals by each consortium at the bid phase process creates innovation through true competition and demonstration of the project packages and interfaces. The urgency to secure well known suitably skilled partners among consortium members provides government access to true turn-key services (section 5.3.2). Furthermore through a single tender process the government was able to ultimately contract with three entities to deliver the DCEC, public and private elements, starting from a consolidated team approach (section 5.6.1).

Once financial close was negotiated and a commitment between public and private partners made, the display of this partnership approach fostered through a PPP arrangement was evident when government agency resources were made available to assist the consortium with the DA (section 5.6.1.1). This assistance greatly reduced the scoping requirements for the DA documentation in order to obtain project approval (granting of a development / construction permit) through the Development Consent authority during the financial close process.

Once the project reached financial close the NTG established a project office of 6-10 full time resources to administer the delivery period through construction.

6.6 Issues against PPPs

*Public sector loses control of PPP projects in exchange for a better level of service (Burrow 2002, Sheil 2002) through risk transfer to the private sector however at greater cost.*

The DCW observed the public consultation comments presented by the Socom (2004) consultations. This public sentiment was embedded into the EoI documents (section 5.3.1.4) when advertising for private sector interest and reviewed against the successful proponent’s master plan before being presented for public comment and approval by the DCA for construction.

The public desire the ability to choose their lifestyle and if necessary will pay for the convenience of new, improved and efficient services. With the DCW project the public was concerned that the land would be lost to private residential apartment towers and become another Gold Coast development. This restricts accessibility to the waters edge only by the owners, locking out the public and blocking ocean views. So a 40% public space mandate was made by government and observed by the private sector developed master plan. The approved master plan included a public domain space adjacent to the convention centre comprising a wave pool as a central feature proved very popular as Darwin has limited surf. If the public lose the right to be able to access or choose otherwise to use what was once public as a result of a project, a public backlash is likely to occur as was the case with the Sydney Cross City Tunnel (section 3.7.2).

Governments need to be savvy to negotiate with the private sector in order to structure a long-term partnership (section 3.7.1) which will withstand public scrutiny. The norm has been for the PSC and PDA not to be made public with only certain pieces released to substantiate government’s position. A move to make public the financial models, contract summaries of the PDA and the PSC (NSW Parliament 2006b) is seen to address public concerns, whilst also holding government to account during these contract negotiations knowing the outcomes will no longer remain confidential.

The core of public resentment is taxation not providing for all necessary public infrastructure. The shift in public mindset needs to adjust to non-core government services being outsourced provided the OBC / PSC can demonstrate this is the best outcome. Simple justification of ‘the project need’ is not enough and VfM
must be proven to be provided throughout the entire lifecycle of the project. The value of competition in the private sector competing for public work has been proven to provide VfM, however the cost of the public sector to borrow money and bid large projects can distort the perceived trade-offs in risk mitigation cost savings borne by PPPs as discussed in section 3.5.

Standardisation of the PPP process (as per the UK 4ps 2006) can lead to assisting government in positioning themselves for outcomes that suit the public and provide the pathway to follow in order to correctly structure the arrangement, closing out all the issues along the way. Similarly the private sector can reduce the bidding costs by having to provide less information and development of project details up front, ultimately resulting in a reduction to the project bottom line and resulting service charges to the public (Section 3.4).

6.7 Australian PPP Market
Several convention centres have been delivered in Australia (Table 3-8, Table 3-9) and other similar large infrastructure projects in Australia have used an investment bank-led model (Larocca, 2004) as there is no requirement for long-term service providers to be part of the financing (Banks 2005).

The DCW DCEC package was delivered via BOOT with significant site development constraints and civil / marine preparatory work involving decontamination / rehabilitation. This made it a difficult project for an investment bank led team to manage to financial close (section 5.6).

The core local Darwin based team consisted of the contractors, engineering consultants and project managers. The legal, financial and architectural teams were led from Sydney (Figure 5-5).

During the EoI, Bid Phase and Financial close, ABN-AMRO as the lead project financier, led the consortium even to the point of shaping the components within the master plan. ABN-AMRO assumed a very active role through these preliminary phases to ensure the deal was made with the signing of the PDA at financial close. Once financial close was achieved ABN-AMRO provided a fly-in–fly-out representative on an as needs basis to represent the developer SPV. ABN-AMRO continued the appointment of an external project manager from the Financial Close phase to act as their day-to-day coordinator of the project construction partners, government and stakeholders.

Comparison of Darwin’s and Melbourne’s Convention and Exhibition Centre projects (DCEC and MCEC respectively) is made in Table 6-1.
Table 6-1 Comparison of DCEC and MCEC Projects

<table>
<thead>
<tr>
<th></th>
<th>DCEC (Refer section 5.6.9.4)</th>
<th>MCEC (Refer section 3.8.1.1)</th>
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</thead>
<tbody>
<tr>
<td>Capacity (seats)</td>
<td>1,500</td>
<td>5,000</td>
</tr>
<tr>
<td>Annual Payments ($m per annum)</td>
<td>$3</td>
<td>Circa $4-5</td>
</tr>
<tr>
<td>Concession period (years)</td>
<td>25</td>
<td>25</td>
</tr>
<tr>
<td>Period of Financial Close (months)</td>
<td>11</td>
<td>14</td>
</tr>
<tr>
<td>Year of Financial Close</td>
<td>2005</td>
<td>2006</td>
</tr>
<tr>
<td>Year of Operation (Due)</td>
<td>2008</td>
<td>2009</td>
</tr>
<tr>
<td>Government Contribution ($m)</td>
<td>$144</td>
<td>$413</td>
</tr>
</tbody>
</table>

The DCW project proved VfM to the government with supportive developments provided in addition to the DCEC. This supports that the Australian PPP participants operate in a mature market (Banks et al. 2004) providing government with value added alternatives to make large projects attractive and beneficial to the public. It is possible to conclude from the data in Table 6-1 that the market participant’s capabilities evolve after each project leading to improved VfM and outcomes for governments.

Bid costs remain high which may otherwise reduce the competition to only the larger organisations limiting VfM outcomes. Certainly the bid costs of 2-3 percent of capital (DCW Stage 1 value $300m, 3% = $9m) are replicated with the DCW project (section 5.6.9.3) which are arguably passed onto government in some shape or form by the successful consortium’s financier in developing the project costs in the PDA.

Standardisation of the bid requirements is likely to assist in ensuring the procurement structure and timeframes for award of financial close is a smoother process and not specially devised for each project situation. Furthermore standardisation would making bidding available to more participants and competition would be increased which is more likely to provide governments VfM according to Grimsey et al. (2005).

Australia’s state based approach of individual development of PPP guidelines and framework places unnecessary impediments on the competing national private sector market. In the UK, national bodies are in place such as ‘4ps’ to assist governments in establishing that PPP are an appropriate mechanism and arm them with the necessary support, guidelines and advice to deliver the project.

This concludes the comparative analysis of the benchmark criteria with the project case study observations. The outcome provides an example of Australian practice, which will now be discussed within the context of the established benchmarks in PPP delivery in the proceeding section.
7. DISCUSSION OF RESULTS

This section discusses the findings and presents the research results based on the evaluation of the benchmark criteria and the case study presented in previous sections.

This section also responds to the research objectives and questions surrounding the design and outcomes of PPPs and draws conclusions through an argued case to support the resultant recommendations.

Presentation of the research outcomes and conclusions are summarised in the following final section.

7.1 Findings

All bid costs for the Darwin City Waterfront (DCW) project were carried by the private sector and involved the design development sufficient for the consortium to provide government a fixed lump sum price. These bid expenses are included in the overall project costs when the private sector calculates its availability charge to government. This makes it the public sectors best interest to keep bid costs low when considering tender call requirements. In bidding and reaching financial close for the project, the DCCC consortium incurred significant costs in the order of 2-3 percent (circa. $14 million) of the project capital cost. The DCCC consortium proposal was able to provide a fully prepared term sheet for all elements of the redevelopment scheme which arguably provided government with the confidence to work with this consortium over others. Understanding governments bid document requirements was difficult for the consortium, particularly where innovative changes were being considered such as the siting of the DCEC. Procurement efficiency was achieved by government through a four stage tender process, allowing the government to ultimately contract with three entities to deliver the DCEC, public and private elements, starting with a consolidated ‘consortium’ team approach.

Once financial close was awarded for the DCW project, construction commenced as the necessary project approvals (EIS and DA) were in place. Government assumed the risk for obtaining and funding the EIS approval process in parallel with the private sector tender call and financial close periods. The preferred project master scheme details were then developed through the negotiations between government and the consortium leading to financial close. The government worked in partnership with the private sector to obtain Development Approval (DA) through the independent planning authority in the Northern Territory the Development Consent Authority (DCA). Once the project reached financial close the NTG established a project office of full time resources to administer the construction delivery phase.

Financial Close required all construction risk to be priced and passed from the consortium financier to the construction partner. The DCW used a BOOT arrangement to partner with the private sector to provide the DCEC as the centre piece of the development with the ‘build ready pad’ – civil works provided by others. The government opted out to expand this scope to include these civil works and adjacent public domain in the concession arrangement, instead using D&C arrangements and funding the collective CI and MI works from public funds.

The justification to the wider public for the PPP approach was kept to internal government circulation. This raised public concern over the use of a PPP approach as the private sector was seen to be driving the project master plan development rather than government on behalf of the public interest during the DA approval period.
Government was faced with delays on other DCW project components, particularly the CI works delivered under the novated consortium D&C arrangement. Additional cost and disputes may eventuate resulting in further project delays and increased costs to government.

The DCW project proved VfM to the government with supportive developments provided in addition to the DCEC. Certainly the bid costs of 2-3 percent of capital (DCW Stage 1 value $300m, 3% = $9m) were replicated with the DCW project (Table 5-7) which are passed onto government by the successful consortium’s financier in developing the project costs in the PDA.

7.2 Contribution

The Australian public sector has been frequently made aware of the inadequate serviceability and capacity of its aging and in demand infrastructure. Water restrictions and traffic congestion are more common place arguably due to over stretched infrastructure, whilst rural areas suffer from insufficient telecommunication services coverage. Such infrastructure sectors often appear in the media and are likely to benefit from the implementation of PPPs to expand much needed public infrastructure and services without diverting public funds and resources away from fundamental public services and governance. However public controversy continues as the traditional system of ‘taxation pays’ moves to ‘user pays’ as increasing numbers of public services are delivered through a PPP arrangement.

The research questions are restated in Table 7-1 together with the summary of benchmark criteria and Australian practice, and the resultant recommendations. The recommendations (Table 7-2) are considered the contribution made by this research from evaluation of Australian practice with the benchmark model for consideration in future projects or for further supportive examination.

Table 7-1 Research Questions

<table>
<thead>
<tr>
<th>Research questions</th>
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<tbody>
<tr>
<td>1. Which procurement methods and consortium roles are more suited for PPPs?</td>
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<tr>
<td>2. How should governments structure the PPP deal?</td>
</tr>
<tr>
<td>3. How can PPP projects provide value-for-money (VfM) in achieving the best outcome for the public?</td>
</tr>
<tr>
<td>4. Is the allocation of design and construction risk entirely to the private sector the best project outcome?</td>
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<tr>
<td>5. What are the unique benefits for participants under the PPP approach?</td>
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<tr>
<td>6. What are the drawbacks for PPPs?</td>
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<tr>
<td>7. Which particular consortium arrangements lead to successful PPPs?</td>
</tr>
</tbody>
</table>

Table 7-2 Results and Recommendations Matrix

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Benchmark Criteria</th>
<th>Australian Practice</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Government engaged consortium under BOOT (DBFO) where private finance is involved</td>
<td>Three separate contracts formed –</td>
<td>Contract using Partnering and Target Cost procurement methodology to alleviate adversarial relationships</td>
</tr>
<tr>
<td></td>
<td></td>
<td>1. DCEC delivered via BOOT</td>
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<td></td>
<td>2. Infrastructure and MI/CI works through a novated D&amp;C</td>
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<tr>
<td></td>
<td></td>
<td>3. Residential elements through a Managing</td>
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</tbody>
</table>
7.3 Argued case for recommendations
Supportive discussion of the recommendations is provided to respond to the research questions drawing upon the key issues provided by the evaluation of the benchmark criteria against the presented case study analysis.

7.3.1 Alleviate adversarial relationships
Utilisation of a Partnering type procurement arrangement is time consuming up front to develop a project ‘target cost’ (similar length to the financial close process), which is not a lump sum amount and is subject to further rise and fall. Under a PPP arrangement to reach financial close a hard fixed dollar budget is required in order to secure financing. In the DCW case instead of continuing a partnering structure with the private sector, negotiations between parties resulted in a traditional
contracting means (D&C) in order to deliver all components outside the DCEC scope. This type of approach may have been undertaken as it was known to the governments delivery team which included provisional cost amounts which has impacted negatively on the program (delays) and relationships (disputes).

7.3.2 Minimise participant interfaces
To achieve the full benefits provided through a PPP procurement route, the complex contractual mechanism established for the project should seek to minimise the interfaces with each major SPV participant. Ideally government would engage a single SPV with coverage over all specialist equity and non-equity partners and providers. However this is not the case for most projects and extensive vertical project hierarchies are necessary which incur uneconomical management fees. Naturally governments seek to restructure into horizontal ranks in order to achieve VfM, but this approach increases the burden of government’s management resources – so a balance must be assessed. PPPs provide government a single point of access to a multitude of private sector skills packaged into a consortium capable of providing the full range of a large project needs, whilst also delivering associated complimentary or supportive elements, such as residential or commercial property development. Therefore government must keep the project objectives in mind and not let the private sector or the complex legal structures impede upon accessing the development of delivery efficiencies of integrated solutions through creativity and innovation.

7.3.3 Standardisation
Simplification and standardisation of the PPP tender process is likely to save time and perhaps a further 2-3 percent of project capital in delivery charges to government. While each of the Australian state government PPP guidelines have broad similarities, each PPP project requires development of costly unique deliverables by the private sector in order to participate in the competitive tendering process. Establishment and development of an authority in Australia like the ‘4ps’ in the UK is likely to assist the Australian market to grow the numbers of participants in the PPP market place. This could potentially drive up competition as costs to participate are able be absorbed by more bidders if unsuccessful. Support to governments by such an authority could also provide the confidence for governments to expand the use of PPPs into other asset classes not normally considered. The recent election of the new Labor government in Australia in November 2007, saw the establishment of Infrastructure Australia an authority given the task among others to develop means of standardising PPPs across the country and the ‘4ps’ could be just the approach it should consider.

7.3.4 Public perception
A misguided partnership is likely if government seek a service or asset provided without any public financial stake in the project or upfront payments made by the private sector. Such structures in all likelihood is not able to achieve its original objectives to improve and benefit the public. Buy-in by all parties must be achieved. Especially government as the party to drive the public interest and see to it that the private sector are held to account and provide a true VfM outcome for the public. Control of the operational phase of the service is provided through performance measures and penalties incurred by the private sector operator. However in the up front project development, scoping and design work, the public sector must impose the will of the public to ensure they are not locked out of the scheme or forced into untenable concession arrangements. The public must be fully consulted and made aware of the impact the new service or infrastructure will have on their lives with full disclosure of the arrangements made by the project team.
7.3.5 Equitable risk sharing
The assurance that PPPs provide VfM to government in terms of risk transfer to the private sector requires (under a financier-led consortium) that technical, price and delivery risk be fixed at the conclusion of financial close. The technical elements of a large project are complex making it difficult to determine all design and construction requirements during the tender period. This requires allocation of a cost contingency for each identified risk that may or may not eventuate. Unnecessary risk premiums can be avoided through a pain/gain mechanism which accompanies the target cost concept with a partnering approach. This however raises the issue of how private sector finance could be secured if provided on an upper and lower range for the anticipated capital cost. Cost uncertainty affects the availability charge determination which would have to be reassessed once the capital cost is realised as the conclusion of the delivery phase.

7.3.6 Freedom of choice
Where public charges (ie. tolls) are payable, anti-competitive actions by government to force the public to use the new facility can create a public backlash against what is perceived to be a monopoly and likely impact upon patronage and the future viability of the private sector operator. If the project outcome will take away existing free services in place for the new (improved) project services then wide public consultation should be undertaken. This will allow the project to manage and gauge the public perception of the change to the status-quo and ascertain if any existing (competing) public service or asset should remain to provide freedom of choice by the public.

7.3.7 Service provider-led consortia
Establish service-provider led consortia during procurement to structure a deal to suit long term commitments rather than short term broker commissions. The key service provider such as the facility manager for a building asset should be instrumental in establishing the contract structure during financial close with the government as they will be the SPV responsible and accountable to see out the concession period for the service. The ongoing payment mechanism for the concession period which commences from the time the asset is placed in service is between the service provider and government. This payment is the only form of control government retains in the deal unless other specific arrangements are included in the contract. In the Australian context these service-provider companies include Bilfinger Berger Concessions, Transurban (both toll road operators), Spotless (facilities management) and Plenary Group (an investor, developer and operator). The service provider partnership with government should have primary control to progress with the procurement process and contract deliberations, and not be a secondary participant as is the case under a financier-led consortium. Large and complex project success is based on getting the structure right with the right team members from the outset, so critical is this approach that it is mandated in the UK for PPP delivery.
An argued case to support the research findings has been presented. This original contribution forms the results of this research and provides an extension to the presented body of knowledge into the research area. A matrix was used to present the research findings and identified recommendations which impact the structure and outcomes of PPP projects.

In the following final section the research objectives and findings are restated to conclude this research paper.
8. CONCLUSIONS

In this final section the research objectives and findings are restated through review of the outcomes from the benchmark criteria modelled from the literature review, case study observations, analysis and discussion of the results forming conclusions presented as recommendations.

A summary of the recommendations to address design attributes and variables, and action and outcomes for PPP projects is discussed together with the findings of this research leading to areas for further consideration in continued research.

8.1 Objectives

The purpose of this research was to benchmark Australian PPP practices against world best practice. This has been achieved by examining the workings of a PPP bid process to record a case study using the PPP procurement route to deliver major public infrastructure. The case study allows subsequent evaluation with the modelled benchmark criteria accepted as best practice found in PPP literature.

The objectives of this research were to:

- Identify key attributes and variables that influence the design of a PPP Project
- Identify key actions and events that influence the outcomes generated by a PPP project
- Model design attributes and variables, and actions and outcomes found in PPP literature
- Evaluate Australian practice as demonstrated in a case study, using the benchmark model
- Discuss findings and present conclusions

By examining these objectives through a proven and grounded research methodology, secondary issues and short comings and benefits surface to provide common issues surrounding industry practice for PPP projects.

8.2 PPP literature and benchmark criteria

The literature review provided benchmark criteria for PPP structure (as presented in Table 2-1) by examining the following areas.

- Project procurement process and structure
- Roles of stakeholders contributing to those projects
- Contractual relationships and arrangements
- Design and construction risk
- Public interest and perception
- Maturity of the marketplace
- Examination of PPP deals within Australia

The literature review expanded upon the well documented risk management considerations of Akintoye et al. (2003) and Grimsey (2001) for PPPs to present the benchmark structure and approach.

Australia’s state based approach of individual development of PPP guidelines and framework places unnecessary impediments on the competing national private sector market. In the UK, national bodies are in place such as ‘4ps’ to assist governments in establishing that PPP are an appropriate mechanism and arm them with the necessary support, guidelines and advice to deliver the project.
Standardisation of the PPP process can lead to assisting government in positioning themselves for outcomes that suits the public and provide the pathway to follow in order to correctly structure the arrangement, closing out all the probity issues along the way. Similarly, the private sector can reduce bidding costs if they were to provide targeted information of project details up front through an open two-way consultation process, ultimately resulting in a reduction to the project bottom line and resulting service charges to the public.

Australian state and federal governments now consider contracting large infrastructure projects through a PPP method equally with traditional procurement means. This has led to a mature market that has grown in capability beyond delivery of transportation projects and further into industry sectors such as social infrastructure. As such it is important to review PPPs project examples and analyse the domestic PPP market so that both public and private participants can refine and improve the process to a more formal structure for wider adoption, rather than developed in isolation on a project-by-project basis.

The original data gathered which formed the case study was presented in the form of participant observations from the $1.1b Darwin City Waterfront (DCW) redevelopment project located in the Northern Territory of Australia. Analytical triangulation of the observations was achieved through use of personal journals, meeting minutes, technical reports, memos, emails etc in development of the case study observations and qualitative data. Relevant topical items from these sources were extracted and placed into a chronological order.

8.3 Case Study of Australian PPP practice

The case study relates to the private consortium bid spanning from August 2003 to May 2005. Within this period the following pre-construction procurement milestone stages of the project were observed:
1. Expression of interest (EoI)
2. Call for Detailed Proposals (CDP) or bid phase
3. Request for Detailed Further Offers (DFO) or Best and Final Offers (BAFO)
4. Financial Close, leading to contract award

After financial close was achieved the project entered the construction delivery phase in which detailed design was undertaken such that construction could commence. This phase however was outside of the observation results presented.

Background to the project development site was presented to provide the context leading up to the NT government’s decision to redevelop the site using a PPP procurement approach.

The case study is considered to provide the example of Australian PPP practice and a more complete record of events and analysis into the often ‘secretive nature’ of the procurement of PPP projects. In particular the case study puts on the record the area where PPPs provide the most effective public savings according to the Allen Report (Allen Consulting 2007) which is during the tendering / bid phase prior to financial close.

The Darwin City Waterfront (DCW) project used a BOOT arrangement to partner with the private sector to provide a new convention centre (DCEC). The government opted out from the private sector offer to expand this scope to include the supporting civil works and adjacent public domain.

The findings show that underneath the complex structure of PPPs, traditional and adversarial Design & Construct (D&C) forms of contract underpin the agreements among construction partners or SPVs. These contractual arrangements are imposed by private financiers whose involvement diminishes at commencement of construction but require a fixed price to secure equity and bond finance.
Access to specialist skills needed to address all technical aspects of the development is provided under a PPP consortium structure up to financial close. These skills provide the means to master plan the entire site to achieve lock down of the strategic planning guidelines. This provided the public with the certainty of the long term development based on the detailed master plan and scale model put to public comment during the development consent approval (DCA) process.

Additional project components were able to be delivered concurrently due to the capacity for the private consortium to provide the technical skills, resourcing and the contractual interfaces. Arguably these components including the aquatic precinct comprising a wave pool and an enclosed static water body created by a 500m long breakwater structure in the harbour were features of the consortium master plan that won them the project.

The Government negotiated at financial close for the public elements under the CI works to be removed from the PPP concession arrangement. This meant that the design development risk of the multistorey car park and wave pool remained with government which is now faced with a cost blow out. The financial close process in the PPP procurement process effectively runs until all uncertainties are resolved or passed to the party best suited to carry the risk and locked in for execution in the delivery phase. In bidding and reaching financial close for the project, the DCCC consortium incurred significant costs in the order of 2-3 percent of the project capital cost (circa $14m).

Through a single tender process the government was able to ultimately contract with three entities to deliver the DCEC, public and private elements, starting from a consortium team approach. However the multiple entities engaged under different procurement arrangements such as BOOT and D&C using lump sum and provisional cost sum arrangements lack contractual flexibility due to the interfaces created, when compared to an alliance partnering arrangement.

At financial close the deal may be well structured and locked in to support private financing arrangements covering all possibilities through construction and operation, but the mechanism to deal with unforeseen construction eventualities is approached from a self-centred perspective to protect each parties rigid commercial position unlike a partnering arrangement operating in the spirit of ‘best for project’.

8.4 Findings and Conclusions

Recommendations outlined from the discussion of the results of this research provide new frameworks for consideration by all project stakeholders. These recommendations are formulated from evaluation of the Australian practice with the benchmark model to strengthen the relationship of the public-private partnership as presented in the table below (Table 7-2 Results and Recommendations Matrix).
### Evaluation of PPP procurement structures – benchmarking delivery of a large public infrastructure project.

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Benchmark Criteria</th>
<th>Australian Practice</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Government engaged consortium under BOOT (DBFO) where private finance is involved</td>
<td>Three separate contracts formed – 1. DCEC delivered via BOOT 2. Infrastructure and MI/CI works through a novated D&amp;C 3. Residential elements through a Managing Contractor (MC) type approach.</td>
<td>Contract using Partnering and Target Cost procurement methodology to <strong>alleviate adversarial relationships</strong></td>
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<tr>
<td>2.</td>
<td>Community access to enhanced services leaving government to focus on core services</td>
<td>Supportive facilities for the DCEC will be provided through a staged master plan under a long term relationship with the residential developer of the ‘private elements’</td>
<td><strong>Minimise participant interfaces</strong> in contractual arrangements to enhance time, cost and risk outcomes provided by a PPP procurement route</td>
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<tr>
<td>3.</td>
<td>Four staged process to select preferred consortium to negotiate financial close involving a fixed lump sum cost for private finance structuring</td>
<td>Protracted financial close period delayed operation of DCEC by close to 12 months</td>
<td>Tender process costs to be reduced to facilitate competition through <strong>standardisation</strong> of responses and processes for participation</td>
</tr>
<tr>
<td>4.</td>
<td>PSC prepared to provide a comparison with traditional approaches using an OBC.</td>
<td>Feasibility study identified most attractive site for DCEC to leverage ‘supportive’ developments provided public access is maintained with co-government contribution</td>
<td>Nil cost to government outcomes are inequitable and should focus rather on <strong>public perception</strong> of VfM through adequate consultation</td>
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<tr>
<td>5.</td>
<td>Private sector assumes majority of design and construction risk</td>
<td>Financial close period used to investigate and eliminate uncertainties in design for lump sum items.</td>
<td>Unnecessary risk premiums can be avoided if <strong>equitable risk sharing</strong> through development of a pain/gain mechanism</td>
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<tr>
<td>6.</td>
<td>Control of service passed to private sector in exchange for ongoing serviceability charge</td>
<td>2-3 percent of capital bid costs passed to government within project availability and delivery charges</td>
<td>Where public charges (ie. tolls) are payable, free alternatives are provided to allow <strong>freedom of choice</strong> by citizens</td>
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<td>7.</td>
<td>Financer-led private sector consortium establishes project specific partnership</td>
<td>Financer-led consortium achieves financial close and then subcontracts other partners to perform long-term operation and maintenance functions</td>
<td>Establish <strong>service-provider led</strong> consortiums during procurement to structure deal to suit long term commitments rather than short term broker commissions</td>
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These recommendations are in response to each of the seven research questions from Table 7-1 and present the contribution made by this research by carrying out the research objectives.
It has been argued that whilst PPPs develop long term relationships the strength of this relationship comes into question. Incorporation of alliance partnering approaches to alleviate ‘adversarial contractual relationships’ and moves to service provider led consortiums rather than finance-led, could provide enhanced value-for-money and public perception outcomes. Addressing these criteria and adoption of standardised processes in structuring PPPs can provide greater public acceptance and allow use across a broader range of industry sectors.

Project structure was established as a key factor (Miller et al. 2000) for a successful large engineering project, yet over complicated structure can lead to inflexibility of the project should difficulty arise. This can be to the detriment of project outcomes. A driving reason for governments to adopt a Public Private Partnership (PPP) procurement route is the mitigation and allocation of risk to the private sector whilst saving time, cost and delivery of integrated and innovative outcomes.

It is acknowledged that this research has limitations. To judge the effectiveness of the PPP approach, the entire life cycle of the project from delivery through to operation for the concession period of some 20-30 years should be examined. However, this was not possible for this research. For the scope of this research the procurement phase of the case study project was the time span of the PPP deal examined concluding at financial close.

PPPs are a relatively new mainstream approach taken by governments around the world and consequently few texts are available on the subject. Those that exist are from the UK and focus on UK policies and project case studies. For this reason Australian government policies serve as the best outline of how PPPs are undertaken on a domestic basis. Much debate into the effectiveness of PPPs is currently circulating in the Australian media, as the momentum builds in the domestic market. Similarly this is reflected in industry key note publications provided on the internet by advisors who consult to both public and private sectors.

8.5 Suggestions for further research and investigation

What for the future? Well in response to the public backlash on several recent PPP projects in Australia notably the bankruptcy of the Sydney Cross City Tunnel operator, the future of Australia’s PPP market has been placed into the hands of the newly elected (2007) Federal Labor Government. In response the government has formed a statutory advisory council Infrastructure Australia (IA), to investigate the standardisation of PPPs and to provide support to agencies looking to procure through the PPP route. This should provide both public and private sector players with the confidence to undertake large infrastructure projects using PPP structures that have been developed in consideration of the range of project circumstances and best practises.

The recommendations established in this research provide direction for future PPP projects and areas for further investigation. Particular focus is warranted in the Australian context to a shift to adopting a uniform approach in identification and delivery of projects of national significance.

PPPs will play a role in this approach and the federal government’s IA body will look to PPPs where appropriately selected through a business case process, as a means to deliver these projects. As IA is currently in the establishment process and yet to develop policy on these matters further research and investigation to influence IA in the following matters should be considered:

- Standardisation of the bid process through development of national policy which assists both private sector bidders and government authorities in reducing time and bid costs. This will also open the PPP procurement options to other levels of government such as utility authorities and local government through provision of a robust process and guidelines to follow. This should also extend to the business case process in order to justify a PPP procurement route is suitable for the project.
• Examine the appropriateness of the UK’s ‘4ps’ PPP guidelines and identify changes or enhancements required for adoption by the Australian market
• Reduction in probity restrictions to allow interaction and consultation during bid phase between private and public parties to ensure proponents have understood the objectives of the bid documentation and desired project outcomes
• Examine means for governments both federal and state levels to contribute public funds in the interest of the project scheme to cover the high risk nature and time consuming bureaucratic elements of the project such as land readiness, decontamination, statutory approvals etc, to ultimately reduce project costs
• Establish conditions for superannuation funds to invest in infrastructure projects to balance interests of investors and the cost to the public for the use of such infrastructure.
9. REFERENCES


Evaluation of PPP procurement structures – benchmarking delivery of a large public infrastructure project.


Robinson, P Hawksworth, J Broadbent, J Laughlin, R and Haslam, C 2000, *The Private Finance Initiative - Saviour, Villain or irrelevance?*, viewed 1 May 2006,
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## 10. APPENDIX A – DCC DETAILED PROPOSAL

Darwin Cove Consortium (DCC) Detailed Proposal breakdown within each of the Returnable Schedules “The Deliverables”.

<table>
<thead>
<tr>
<th>Returnable Schedule</th>
<th>Contents</th>
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| **Introduction**    | This section of the proposal contains an overview of the returnable schedules and supportive documentation submitted for the tender. This includes outside the returnable schedules:  
  • 1:1000 scale set of illustrative boards depicting the master plan, stage one elements and infrastructure at each stage  
  • 1:500 scale physical model of the entire site master plan  
  • 1:500 scale physical model of the DCEC building including removable sections such as the roof and internals etc  
  • Darwin Cove: Share our Vision – “coffee table book”. This marketing book outlines the vision for Darwin Cove and introduces the master plan, financial and non-equity partners and business partners |
| **1 (a) Master Plan** | Darwin Cove has created an exciting precinct, a must-see attraction for visitors and a favourite hot spot for locals. The excitement of the development is created through a careful and integrated balance between the Darwin Convention and Exhibition Centre to draw business tourists, the apartment hotel which provides convenient, high-quality accommodation to conference delegates and other visitors, residential apartments which create a permanent population to invigorate the area, public domain activities such as a public swimming beach, family lagoon areas, amphitheatre and foreshore, and a strong mix of retail and hospitality operators. Most importantly, the master plan integrates these offerings into a sustainable mix which activates the precinct around the clock and around the year, and draws interest from around the world.  
  Darwin Cove reflects a strong commitment to public art, including heritage and cultural themes. In particular, development of an “Avenue of Honour” along Smith Street, between the Smith Street Mall and the Escarpment, which pays tribute to the people who have helped make Darwin the great place that it is: from pioneers and entrepreneurs to those that have sacrificed their lives in military conflict. This Avenue plays a critical role in activating the area back towards the CBD and creating a strong between the CBD and Darwin Cove.  
  Another critical element of the Darwin Cove master plan is the bridge and viewing platform from Smith Street, over the Escarpment, connecting with the slimline residential signature tower. This viewing platform offers a breath-taking view of the precinct, looking over to the iconic Darwin Convention and Exhibition Centre, the public domain amphitheatre and beach area, and over to the Wharfs. This is a perfect spot for watching the vivid sunsets of the Top End, or the exciting wet season storms as they roll in. |
Some other important points to note are the following:

- A sea wall which creates a locked body of water, thereby controlling tidal influence and creating a stable body of water over which the Darwin Convention and Exhibition Centre projects;
- A second controlled body of water which forms a year-round swimming beach, with wave machine;
- Lagoon and children’s water play area;
- Unrestricted access to the complete foreshore;
- Ample shading and shelter provided throughout the precinct, including on boardwalks and promenades throughout the precinct;
- Ample structured, on-grade and underground car parking;
- A Cultural Centre and amphitheatre space which provides additional performance space to complement the Darwin Convention and Exhibition Centre, and houses The Darwin Experience;
- Apartment hotel which provides high quality, convenient accommodation for conference delegates and other visitors to Darwin;
- A stand-alone restaurant building adjacent to the Darwin Convention and Exhibition Centre which provides an additional alternative to the convention centre for functions and catering; and
- A strong, balanced mix of retail and hospitality, providing much needed amenity to the permanent residential population of the precinct and visitors to the precinct.

Importantly, along with producing a stunning, world-class master plan, Darwin Cove Consortium has devised some exciting marketing and partnership strategies to attract quality operators to the precinct, develop new tourism campaigns, and provide quality activities to visitors of Darwin Cove. Some of these exciting initiatives include The Darwin Experience (a drawcard cultural tourist attraction), the wave machine that creates a new surf beach for Darwin, and creating a calendar of new conference and tourist events such as the “Annual National Indigenous Arts, Culture and Dance Festival”.

<table>
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<th>1 (b) Stage one development commitment</th>
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<td>The consortium focussed on developing a master plan which is fully self-sustaining in Stage 1 so that the success of the precinct is not dependent on any future developments. As a stand-alone development, Darwin Cove is able to create and maintain a vibrant, dynamic precinct which is only enhanced and improved through the subsequent stages. Stage 1 includes:</td>
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The Darwin Convention and Exhibition Centre;
• The apartment hotel;
• The Darwin Experience;
• The signature residential tower;
• The residential finger wharf which projects from the tower to the sea wall;
• The stand alone restaurant building adjacent to the Darwin Convention and Exhibition Centre;
• The sea wall, delivering the permanent body of water;
• The beach and lagoon areas;
• The amphitheatre;
• The viewing platform from Smith Street over the Escarpment;
• The Avenue of Honour along Smith Street;
• Promenades and boardwalks throughout the site;
• Shade and shelter structures; and
• 1350 car parks.

2 Detailed Design – Darwin Convention and Exhibition Centre

The power of an iconic building is undeniable, and creates a tourism attraction in its own right. The Darwin Convention and Exhibition Centre is inspired by the curved beauty of a shell. Perched dramatically over the sea, the reflection in the water below presents the illusion of a completed and open shell. Being so closely aligned with the natural history and commerce of the area, the design has meaningful significance to the people of Darwin, including the traditional owners the Larrakia. This affinity with the community should evoke a sense of ownership and pride. Darwin Cove’s proposal for the Darwin Convention and Exhibition Centre offers maximum flexibility for a convention and exhibition center of this size and intended market and is closely attuned to our operator’s requirements (Ogden IFC has been directly and intimately involved in the design of the Darwin Convention and Exhibition Centre), fully meeting the needs of the anticipated uses across the broad spectrum of likely events.

3 Sustainability (ESD)

In undertaking this project, one of the key objectives of the Northern Territory Government is the application of sustainability principles to both the Darwin Convention and Exhibition Centre and the wider waterfront precinct development. The consortium devised a range of mechanisms to incorporate Ecologically Sustainable Development (ESD) principles within the development of the precinct, and provides a balance between social, environmental and
Economic benefits. Darwin Cove Consortium fervently support the Northern Territory Government's commitment to ESD. We have worked hard to embrace and incorporate environmentally sustainable design initiatives at every opportunity during design, construction and operational phases of the project. The Darwin Cove Consortium also recognises the importance of the Year of the Built Environment (YBE). Darwin Cove easily represents the largest inner city urban development project in Darwin, and therefore must feature as a cornerstone initiative for the Year of the Built Environment.

Darwin Cove Consortium recognise that due to the prominence of the project, and the direct involvement of the Chief Minister's office in both the YBE and the DCW, that this project must actively embrace and promote the principles of sustainability, community consultation and community ownership. To facilitate and achieve the objectives of both the YBE and the DCW, subject to Northern Territory Government approval, Darwin Cove Consortium would seek to immediately commence a community education and consultation program about the proposed precinct development immediately upon award of preferred bidder status. We would seek to undertake this commitment to ensure the project is promoted during the Year of the Built Environment, maximising the promotional and marketing benefits for both the NT Government and Darwin Cove Consortium.

Our master plan has particularly considered the local design implications of building in a tropical environment. The Darwin Cove master plan has adopted the following ESD objectives in terms of urban design:

- Maintenance of access to the foreshore;
- Provision of open space and recreational opportunities;
- Mixed use to create vibrancy;
- Pedestrian and cycle facilities;
- Traffic and car parking management to facilitate a pedestrian friendly environment;
- Linkages with surrounding areas including CBD;
- Retention of cultural and historical features;
- Providing a safe and accessible environment; and
- Providing quality open space.

One of our key initiatives is a co-generation energy plant developed in conjunction with Origin Energy, brought about by the scale of the proposed development which warrants the consideration of potential energy generation from renewable energy sources, and/or the use of recovered energy from a co-generation plant. Our proposal by Origin incorporates both of the key sustainability objectives by incorporating renewable energy generation via solar PV panels and the use of recovered waste energy from a co-generation plant.

<p>| 4 Local Industry Participation Plan | This project is about more than just building infrastructure: among other things, it is about growing the local economy, developing local expertise, creating local job opportunities, and capturing a feeling of local pride and ownership. The |</p>
<table>
<thead>
<tr>
<th>Returnable Schedule</th>
<th>Contents</th>
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<tr>
<td>consortium is fundamentally a local team, supported and augmented by the expertise of world-leading experts in a few specific fields. The Darwin Cove Consortium confirms its wholehearted commitment to a Local Industry and Indigenous Participation Plan (LIIPP) to maximise participation of local Northern Territory industry throughout the life of the Darwin City Waterfront project. Our commitment to Local Industry and Indigenous Participation delivers the following benefits:</td>
<td></td>
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<tr>
<td>• A better end result due to the design, construction and operation of the precinct being managed and lead by people with Darwin-specific expertise and understanding;</td>
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<tr>
<td>• A strong and positive message to the community;</td>
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<tr>
<td>• A passionate sense of ownership by the community;</td>
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<tr>
<td>• The important economic impact due to goods and services being purchased within the Northern Territory;</td>
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<tr>
<td>• The ongoing economic impact and the broadened range of retail, dining, entertainment and service operations introduced to Darwin through partnerships, joint ventures, franchises and licences with locals;</td>
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<tr>
<td>• The critical community and economic impacts of medium-term and long-term employment opportunities, including increased opportunity for stable employment through all seasons;</td>
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<tr>
<td>• Enhanced skill and knowledge base for locals due to their involvement in the design, construction and operation of the precinct, including the encouragement of international quality standards through working with consortium partners; and</td>
<td></td>
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<tr>
<td>• The ability for local operators to develop important networks and alliances throughout Australia and the world through relationships and contacts built through this project.</td>
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<table>
<thead>
<tr>
<th>5 Business Plan</th>
<th>Darwin Cove Consortium’s fully underwritten offer for the delivery of the Darwin Convention and Exhibition Centre is underpinned and secured by the following:</th>
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<tbody>
<tr>
<td>• The fixed price, fixed time design and construction contract, to be executed by the Sitzler Barclay Mowlem Joint Venture, designed and engineered by Crawford/TVS and Connell Wagner respectively. Henry Walker Eltin provide significant subcontract services in respect of the required DCEC civil works;</td>
<td></td>
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<tr>
<td>• All operating risk accepted by Ogden IFC Pty Limited as evidenced by the Operator Term Sheet executed Ogden IFC;</td>
<td></td>
</tr>
<tr>
<td>• All maintenance risk accepted by Honeywell Pty Limited and guaranteed by Honeywell Inc of the US as evidenced by an executed Maintenance Term Sheet; and</td>
<td></td>
</tr>
<tr>
<td>• With all debt and equity finance underwritten pursuant to the terms of Debt and Equity Term Sheets executed by ABN AMRO.</td>
<td></td>
</tr>
</tbody>
</table>
The design of the Darwin Convention and Exhibition Centre delivers an iconic water based public building that becomes instantly recognisable world wide as Darwin's own. The above mentioned organisations have the proven capacity, depth of local experience and balance sheet strength required to deliver this world class project with certainty.

The financing for the Darwin Convention and Exhibition Centre is fully underwritten by ABN AMRO under a traditional public private partnership, similar to a variety of recently executed project across Australia. Under the Concession Deed, Government pays for the use of the Darwin Convention and Exhibition Centre, subject to meeting various maintenance related performance hurdles, over a 25 year period. At the end of 25 years of operations the Darwin Convention and Exhibition Centre is transferred to Government’s ownership. The PPP delivery mechanism ensures the optimal transfer of risk to the private sector for the design, construction, maintenance and whole of life costing for the Darwin Convention and Exhibition Centre.

**Community Infrastructure**

Darwin Cove Consortium’s fully underwritten offer for the delivery of the CIPD is underpinned and secured by the following:

- The fixed price, fixed time design and construction contract to be executed by Henry Walker Eltin, designed and engineered by Hassell Architects and Connell Wagner respectively; and
- With all debt finance underwritten pursuant to the terms of Debt Term Sheet executed by ABN AMRO.

The ABN AMRO financing offer provides Government with the opportunity to lease the CIPD for periods ranging from 5 to 25 years, depending upon the needs of Government. This allows Government to match the cash flow obligations of paying for the CIPD with the economic benefit that is expected to accrue from the investment in Darwin Cove.

**Private Elements**

Darwin Cove Consortium has broken down the commitment in respect of the Private Elements into a Stage 1 component which is to be fully underwritten at Financial Close (rather than Bid Date) and the Stage 2 component which is not underwritten and is to be undertaken in accordance with the approved Master Plan and delivered over time in accordance with market demand. As evidenced by the HASSELL Master Plan, the Darwin Cove Consortium proposal details the development of a vibrant, mixed use international waterfront precinct, anchored by the Darwin Convention and Exhibition Centre and other public domain and community infrastructure, and comprising the following significant elements:

1. A hotel/apartment hotel designed to allow for 202 apartments or 235 rooms on a dual key basis;
2. A signature residential tower and two low rise residential buildings comprising a maximum of 235 apartments, but scaleable down to as low as 102 in Stage 1; and
3. Retail comprising approximately 7,800m² generally at board walk level.

<table>
<thead>
<tr>
<th>Returnable Schedule</th>
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</table>
|                     | The design of the Darwin Convention and Exhibition Centre delivers an iconic water based public building that becomes instantly recognisable world wide as Darwin's own. The above mentioned organisations have the proven capacity, depth of local experience and balance sheet strength required to deliver this world class project with certainty. The financing for the Darwin Convention and Exhibition Centre is fully underwritten by ABN AMRO under a traditional public private partnership, similar to a variety of recently executed project across Australia. Under the Concession Deed, Government pays for the use of the Darwin Convention and Exhibition Centre, subject to meeting various maintenance related performance hurdles, over a 25 year period. At the end of 25 years of operations the Darwin Convention and Exhibition Centre is transferred to Government’s ownership. The PPP delivery mechanism ensures the optimal transfer of risk to the private sector for the design, construction, maintenance and whole of life costing for the Darwin Convention and Exhibition Centre. **Community Infrastructure** Darwin Cove Consortium’s fully underwritten offer for the delivery of the CIPD is underpinned and secured by the following:  
- The fixed price, fixed time design and construction contract to be executed by Henry Walker Eltin, designed and engineered by Hassell Architects and Connell Wagner respectively; and  
- With all debt finance underwritten pursuant to the terms of Debt Term Sheet executed by ABN AMRO. The ABN AMRO financing offer provides Government with the opportunity to lease the CIPD for periods ranging from 5 to 25 years, depending upon the needs of Government. This allows Government to match the cash flow obligations of paying for the CIPD with the economic benefit that is expected to accrue from the investment in Darwin Cove. **Private Elements** Darwin Cove Consortium has broken down the commitment in respect of the Private Elements into a Stage 1 component which is to be fully underwritten at Financial Close (rather than Bid Date) and the Stage 2 component which is not underwritten and is to be undertaken in accordance with the approved Master Plan and delivered over time in accordance with market demand. As evidenced by the HASSELL Master Plan, the Darwin Cove Consortium proposal details the development of a vibrant, mixed use international waterfront precinct, anchored by the Darwin Convention and Exhibition Centre and other public domain and community infrastructure, and comprising the following significant elements:  
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3. Retail comprising approximately 7,800m² generally at board walk level. |
<table>
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<td></td>
<td>under both the three residential buildings and the apartment hotel; and 4. The individual elements of the abovementioned Stage 1 Development. At bid date, Darwin Cove Consortium has not underwritten any of the Private Elements.</td>
</tr>
<tr>
<td><strong>6 Partnering Structure</strong></td>
<td>The members of the Darwin Cove Consortium have extensive experience in the delivery of projects of similar size and complexity to the proposed Darwin Cove and, together, have the financial capacity and expertise to ensure they meet and exceed the Territory's expectations. The Consortium has adopted a traditional and proven PPP approach to the delivery of the Darwin Convention and Exhibition Centre and related Community Infrastructure and has allowed sufficient flexibility in its delivery of the balance of the development to ensure an efficient outcome in tune with market demands and conditions and in line with the Territory's broader objectives. Darwin Cove Consortium has assembled the best local and national builders, managers, operators and specialist consultants in its preparation of the Submission and, if successful, in its delivery of the Project. Fully negotiated term sheets have been agreed with key suppliers, contractors and underwriters to ensure that the Consortium is able to achieve financial close well in time with the Territory's proposed plans. The delivery of the Private Elements is through a development partnership comprising Toga, ABN AMRO, Sitzler Barclay Mowlem Joint Venture and Henry Walker Eltin.</td>
</tr>
<tr>
<td><strong>7 Financial Structuring and Funding</strong></td>
<td>The financing structure for the Darwin Convention and Exhibition Centre is similar to the financing structure ABN AMRO has implemented on a range of recent financings including the Spencer Street Station, Wyuna Water, Berwick Hospital, Victorian County Court, Parramatta Police Headquarters and the recent NSW Schools Project. This structure broadly requires the D&amp;C Contractor to take the delivery risk of the project, with such delivery risk being underwritten by ABN AMRO, while the long-term maintenance risk on the asset is accepted by the Facilities Manager (Honeywell). The financing structure therefore takes risk on both completion and the long-term asset performance of the project.</td>
</tr>
<tr>
<td><strong>8 Risk Allocation Plan</strong></td>
<td>The consortium accepts the large majority of the risk allocation proposed by the Territory, subject to amendments below. The proposed allocation is justified based on the following principles of risk transfer:  • Whichever party is allocated risk, that party must have the freedom to choose how to handle and minimise risk;  • Special processes should apply to the assessment of risk, where they materialise and have a material adverse effect on the project;  • Reconciling risk allocation may involve the Government taking back those risks which it is best placed to manage, or can manage at a lower cost than the private sector; and  • For risks which are outside the control of either party, risks may be shared using special risk-sharing mechanisms. Changes to Government Risk Allocation Profile:  • Site works impacts associated with archaeological discoveries to be bared</td>
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Returnable Schedule | Contents
---|---
| by Government. The proponent is issued a scope change and extension of time.  
- Interest rates change impacting financial agreements. Margins are shared between Private and Government parties.  
- Force-majeure event leads to increase to insurance premiums or that a risk becomes uninsurable is shared

9 Project Documentation | The project documentation comprising the Concession Deed, the PDA, and Development Lease as draft forms of contracts provided by government are commented and alternative forms / structures and amendments are proposed by the consortium.

The key issues raised are due to:
- Separation of operation (by the Operator) from design, construction and maintenance duties of the Concession Holder under the DCEC Concession Deed and Operation Contract to reflect two separate parties undertaking these activities  
- Community Infrastructure (CI) be financed through a separate bond issue underwritten by ABN AMRO, and that the property developer's obligations in respect of the CI is moved from the PDA to a standalone CI lease agreement. Community Infrastructure P/L (CI SPV), enters into a Community Infrastructure Lease (CI Lease) with the Territory.  
- Amendment of the Stage 1 / DCEC cross default. Considerations to be made regarding timing of the practical completion of the various components of Stage One and their integration with completion of the DCEC, as plans for Stage One residential, retail and hospitality facilities are substantial and can not be achieved concurrent with the DCEC.  
- Changes to the payment and performance regime under the DCEC Concession Deed so it only relates to the FM Services, not the Operating Services. The only payment payable under the Concession Deed is a base Territory Availability Payment, payable quarterly. The Concession Holder is to comply with the KPI Monitoring System (a self-monitoring system developed by the Concession Holder).  
- The Territory pays the Operator an annual Management Fee in four quarterly installments. The amount of the Management Fee will be fixed in the Operation Contract for all installments for the concession term and adjusted only for CPI increases.  
- Completion obligations for DCEC and Stage 1:  
  - Sunset date set to 12 months after practical completion and that it is adjusted for extensions of time  
  - Extensions of time would be granted for:  
    - tests show the DCEC Works comply with the Project Requirements.  
    - Territory initiates a Scope Change  
    - We also seek financial adjustments where an EOT is given for:
## Returnable Schedule

<table>
<thead>
<tr>
<th>Contents</th>
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<tbody>
<tr>
<td>• tests show the DCEC Works comply with the Project Requirements.</td>
</tr>
<tr>
<td>• discovery of Relics.</td>
</tr>
<tr>
<td>• Deleting the provisions which indicate that the Territory is claiming the Builder’s float</td>
</tr>
<tr>
<td>• The Force Majeure related definitions have been amended to reflect an acceptable risk allocation consistent with current market practice. Where Force Majeure results in suspension of Territory Availability Payments provision be made for Territory Availability Payments to be adjusted to take account of the cost of the delay in receipt of those payments. The Territory’s termination right for continuing Force Majeure be also given to the Concession Holder and that the right be able to be exercised after 12 months.</td>
</tr>
<tr>
<td>• Definition of Uninsurable Events changed to be consistent with market practice. The Concession Holder should be relieved of its insurance obligations to the extent a risk becomes uninsurable and the cost effects of the event be dealt with through a material adverse effect regime similar to that proposed by the Territory in respect of Qualifying Change in Law.</td>
</tr>
<tr>
<td>• Voluntary termination of Concession Deed is offered to the Territory as a right to terminate the concession in a non-default scenario, to provide it with the maximum flexibility. This proposal is subject to such a voluntary termination not having an adverse effect on our tax position.</td>
</tr>
<tr>
<td>• Changes to the Step In provisions to bring them more in line with market practice, while still giving the Territory the powers it reasonably requires. Which includes; Step in only to apply during the Operating Phase; Distinctions to be drawn between the ramifications of emergency step in and step in for Concession Holder default; Territory to be responsible for its actions during step in</td>
</tr>
<tr>
<td>• Changes to the default and termination provisions to bring them in line with market practice. The key changes are; events which the Territory proposed lead to immediate default and in some cases moving them to the Show Cause regime. Show Cause which cannot be remedied to result in default if acceptable demonstration of mitigation and avoidance strategy not provided. Change in ownership/control. Missing the Date for Completion should not be a default. Clauses which conflicts with the notion explained at Territory briefings that the Lenders have the opportunity (and therefore the right) to cure during stated cure periods. The Concession Holder should have a right to terminate following 12 months of a Force Majeure Event having effect during the Operating Phase.</td>
</tr>
<tr>
<td>• Compensation on Termination regimes:</td>
</tr>
<tr>
<td>- Where default by the concession holder occurs during construction that party will be liable for Capital costs to complete the DCEC at the date of termination</td>
</tr>
<tr>
<td>- Where default by the concession holder occurs during operation that party will be liable for full debt liability plus financing breakage costs less any amounts owing to the Territory</td>
</tr>
<tr>
<td>- Where Default by the Territory or Voluntary termination by the</td>
</tr>
</tbody>
</table>
Returnable Schedule | Contents
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 | Territory occurs during construction that party will be liable for Capital costs already expended by the Concession Holder building the DCEC.
  | Where Default by the Territory or Voluntary termination by the Territory occurs during operation that party will be liable for Full debt liability plus financing breakage costs, return on the equity projected in the original model, third party costs incurred by the Concession Holder.
  | Compensation is given for Native Title, Relics or Force Majeure Event the same as for Territory Default, except during the Operating Phase there will be no return to Equity.
  | Contamination is not well defined. Territory decontamination obligations contained in the Project Delivery Agreement need to be clearly set out in a schedule annexed to both the Concession Deed and the Project Delivery Agreement. As the parties to both agreements are not identical this would make sure the Territory Accepted Contamination position is consistent in both documents.
  | No requirement for a sinking fund for the operation of the DCEC. As facilities management contract will provide “back-to-back” responsibility for the asset management and life cycle maintenance.
  | An Independent Certifier be jointly appointed by the Territory and the Concession Holder and be responsible for key decisions under the DCEC Concession Deed, Funding Documents and the D&C Contract, it will promote uniform resolution of issues between all key parties. This Independent Certifier will be responsible for valuing Scope Changes during the Construction Phase if the value cannot be agreed by the parties.
  | Financiers require adequate control over the insurance proceeds in the event of a claim. A Security Trustee is the initial recipient of all significant insurance proceeds and that it be required to disburse those proceeds in accordance with a mechanism to be agreed and documented in the Concession Deed.
  | The key changes made to the change in law regime bring the position more in line with market practice: Qualifying Change in Law - Concession Holder to receive financial adjustment and extension of time. Change in Law other than Qualifying Change in Law - MAE regime applies.

10 Proponents Requirements of the Department/Territory | Specifications of Risk Site Decontamination and Preparation
--- | ---
 | Dredged marine sediments from within the site boundaries are disposed of at sea using overflow trailer hopper barges at the NTG nominated location. Alternatively, East Arm Port should be considered as a disposal site. No allowance has been made for decontamination of these marine sediments if required to meet statutory requirements or any other requirement of the Territory.
  | Containment of possible ground water “leaching” into proposed lagoon water body.
  | Any findings of EIS and supplementary reports which vary from project
• Founding the breakwater foundation at the top of the clay layer underlying the mud. Initial geotechnical data during the Bid period indicates that this is feasible. However, detailed investigations are required to confirm this. Should such investigations disprove this assumption, compensation for the additional excavation, fill, and rock armour would be required. This assumption has been made following the proven details of East Arm Port Stage 2 works that were recently completed by the civils and services infrastructure contractor, Henry Walker Eltin.

• Allowance for the removal of mud to the breakwater rock toe only (ie excludes additional five metres each side of wall as shown on the design drawings) is included in the offer. Further mud removal is deemed unnecessary.

• Offer is based on the location of the breakwater as shown on the drawings. Should this be altered, compensation is required.

• Survey, recovery and removal of Unexploded Ordinance (UXO).

Site Infrastructure Including Services and Improvements

Responsibility of Territory, any Authority or Darwin City Council:

• Provision of Indicative Headworks Services Infrastructure as outlined in Part B Documents

• Telstra to provide necessary Headworks Telecommunications infrastructure to DCW site boundary

• Use best endeavours as required by the Darwin Cove Consortium’s development and construction programmes to secure all necessary approvals and otherwise to facilitate the consortium’s proposals, in particular for co-generation initiatives.

• Capacity sizing of services headworks infrastructure for the ultimate master plan development.

• We have been instructed not to confer with the Navy in relation to its fuel pipelines and other services. We have not allowed for removal or relocation of any fuel pipe lines including Navy.

Off-Site Infrastructure and Street/Facilities Improvements

Responsibility of Territory, any Authority or Darwin City Council

• NT Government to fund all initiatives for connecting the site to the CBD (including bus services) that are outside the DCW site.

• Clearing of vegetation on escarpment edge at the end of Smith Street for public access bridge and viewing requirements, including approvals.

• Upgrade of Tiger Brennan Drive / McMinn St Intersection if required to
### Contents

- Provision of all services to the DCEC Works boundary will be by others for connection by D&C Contractor. It is assumed that these works will be installed in a timely manner to enable the full functionality of the DCEC in accordance with the D&C Contractor’s programme requirements.

### Other

**Responsibilities of Territory (or other relevant Authority):**

- Effective Date occurring on or before 30 November 2004 to allow a construction period of 154 weeks with the Date for Practical Completion being 15 November 2007 and Sunset Date being 15 November 2008.
- Heritage Conservation Works and signage – Territory’s responsibility for amounts above a provisional sum $200,000.
- Achieve development approvals (including town plan amendment) to meet the design and construction program dates.
- The Asset Management Plan in respect of the Community Infrastructure including costs is indicative and not warranted by Darwin Cove Consortium at close of Bid. In addition, Public Liability Insurance has not been costed.
- Agreement to participate in a 2 day workshop to commence immediately following the appointment of preferred Proponent with the purpose to plan and agree the process, activities and key milestones that are needed to achieve financial close on both the Public and Private Elements by the earliest possible date and in any event before 15 December 2004.
- The Lagoon Flushing Structure shown on drawing M001 is not included in the DCEC Works.
- The DCEC Works are defined as those enclosed within the hatched zone shown on the marked-up drawing C001 Rev02 (Note: Sitzler Barclay Mowlem Joint Venture reference, 07/05/04)
- Stockpiled fill material: We have allowed to incorporate material from the existing stockpile on site into the works and have based our calculations on the volume available at 40,000 m³.
- Fuel lines: No allowance has been made for the removal and relocation or any other works associated with the existing fuel lines in the project area.
- Treatment plant: We have excluded the cost of the treatment plant and associated TCW piping detailed in Option 2 of the proposed sewerage works for Stage One. Should this plant be required, the cost is $5.2 million for the plant specified. Should our offer be of interest we would also undertake to investigate further options to fully explore the ESD objectives outlined for the project.
- The following items have been denoted as not being sufficiently detailed for costing purposes and have been allocated provisional sums in our pricing proposal for the Community Infrastructure and public domain. These values are based on the values included in our quantity surveyor’s cost.
Returnable Schedule | Contents
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 | All costs and savings resulting from cost differences to the provisional sum shall be the responsibility of the Territory:

<table>
<thead>
<tr>
<th>Item</th>
<th>Provisional Contract Sum</th>
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<tbody>
<tr>
<td>Safety Barrier / Handrail or similar 250m</td>
<td>$75,000</td>
</tr>
<tr>
<td>Allowance for lighting walk 250m</td>
<td>$71,250</td>
</tr>
<tr>
<td>Safety Barrier/ handrail or similar 250m</td>
<td>$75,000</td>
</tr>
<tr>
<td>Allowance for lighting walkways 250m</td>
<td>$71,250</td>
</tr>
<tr>
<td>Floating connection between residential and seawall</td>
<td>$200,000</td>
</tr>
<tr>
<td>Target rate for excavation, battering, path, lighting</td>
<td>$900,000</td>
</tr>
<tr>
<td>Wall separating locked water from beach</td>
<td>$440,000</td>
</tr>
<tr>
<td>Filtering system</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Water play</td>
<td>$500,000</td>
</tr>
<tr>
<td>Recreation Pool</td>
<td>$700,000</td>
</tr>
<tr>
<td>Wave Pool</td>
<td>$1,750,000</td>
</tr>
<tr>
<td>Shade structures to recreational pool / water play</td>
<td>$200,000</td>
</tr>
<tr>
<td>External paving / carparking/ landscaping/lighting</td>
<td>$3,750,000</td>
</tr>
<tr>
<td>Shade structures</td>
<td>$1,750,000</td>
</tr>
<tr>
<td>Elevated boardwalk around cultural centre – assumed timber structure</td>
<td>$562,500</td>
</tr>
<tr>
<td>Boardwalk from residential terrace to seawall</td>
<td>N/A</td>
</tr>
<tr>
<td>Pedestrian bridge</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Glass fronted lift</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>Heritage – Place name signage</td>
<td>$180,000</td>
</tr>
<tr>
<td>Excavate mud / clay</td>
<td>$504,296</td>
</tr>
<tr>
<td>Seaside pontoons</td>
<td>$1,000,000</td>
</tr>
<tr>
<td>6 storey carpark behind hotel</td>
<td>$8,683,875</td>
</tr>
</tbody>
</table>

11(a) Conflict of Interest Statutory Declaration | Conflict of Interest Statutory Declarations provided by equity partners

11(b) Confidentiality Deed | Confidentiality Deeds provided by equity partners

12 Intellectual Property Rights and Release Deed | Transfer of all developed information and knowledge for detailed proposals to government
11. APPENDIX B – REQUEST FOR DFO


**RS 1 - Master plan**
1. **Master plan**
   - Style of DCEC architecture not conducive to regional references – consortium to engage with government architect to explore changes
   - Storey heights and position of the residential elements creating a barrier across the site – amendment of master plan
   - Inwards nature of DCEC orientation – provide comment on sustainability

2. **Stage 1 Hotel**
   - Confirm if part of Stage 1 and how accommodation for DCEC delegates will be managed

3. **Fort Hill Staging Area**
   - Confirm this area is retained for Defence use and not part of development

4. **DCEC Completion Date**
   - Desire for DCEC operational as early as possible – explore means of achieving an earlier start to design documentation

5. **Cultural / Public Arts Facilities**
   - Clarify government contribution and return – impacts to proposal if no contribution is made

6. **Exposure to Storm Surge / Wave and weather action**
   - Clarify design philosophy for sea walls and ability to resist erosion and other wave and weather action

7. **Connectivity with CBD**
   - Confirm which of the three options (travelator, tug-train and continuous shaded link) is committed and who will assume the funding responsibility

8. **Creating a Locked Water Body**
   - Confirm that a second barrier to isolate the beach water is part of the financial commitment

**RS 2 – DCEC**
9. **Schedule of FF&E**
   - Confirmation of funding inclusion for all FF&E items scheduled

10. **Security Risk**
    - Confirm a security risk management plan is included

11. **Main Kitchen**
    - Confirm HACCP requirements are factored into design

**RS 3 – ESD**
12. **Extend of commitment to sustainability principles**
    - Identify further hard and soft sustainable initiatives beyond hard engineering related initiatives, and how budgeted and managed

13. **Extent of commitment to public art**
    - Need to develop a public art strategy and develop a schedule of proposed elements

14. **Public art budget**
    - Provide element budgets and ongoing maintenance regimes to clarify scope which is unclear

15. **Heritage and History**
    - Some heritage sites have been built out in the master plan. Confirm how the master plan responds to all heritage and historical sites
16. Cogeneration and chilled water
   - Confirm cost and status of cogeneration and chilled water incorporated into the site

RS 4 – Local Industry Participation Plan (LIPP)
17. LIPP definition and enforcement
   - A best endeavours basis proposed by consortium needs to be turned into quantifiable targets with enforcement mechanisms develop

RS 5 – Business Plan
18. Requirements of Government
   - The government is seeking to cap its contribution to the DCEC
   - The government contribution to the DCEC is unclear and in particular the marketing support expected to be provided by government prior to opening needs to be clarified
   - The funding structure for the Darwin Experience element of the community infrastructure requires clarification of funding and commercial structure

19. Transportation
   - Clarify the operation of suggested shuttle buses and how these are funded and managed

20. Management and ownership of public infrastructure
   - The management, funding, ownership and maintenance of public infrastructure is to be further explained, to confirm if a body corporate structure is envisaged
   - A breakdown of all elements and associated costs and ongoing maintenance is to be provided
   - Clarify how Darwin City Council and the proposed precinct association will interact

21. Safety and Security
   - Outline the safety and security provisions, insurance, funding and implications of swimming pools compliance with regulatory conditions

22. Financial Model
   - Confirm consortium will absorb DCEC demand/ P&L risk and not funded by government as an operating subsidy
   - Explain the DCEC conference and delegate figures, event mix, pre-opening marketing expenses, equity buffer and operating risk premium figures within the model
   - How will a potential conflict of interest and operational synergies be managed as the proposed DCEC operator Ogden, also operates similar facilities in Newcastle Cairns and Brisbane

23. External Headworks
   - Ensure costs for telecommunications, gas and other services not provided by government are costed

24. Demolition of existing structure
   - Confirm scope of demolition and funding in proposal outside government ’s commitment

25. Exhibition Space
   - Justify the reduction of the DCEC exhibition space

RS 6 – Partnering Structure
26. Termination
   - Proponent default position is to be clarified for all phases of DCEC, public infrastructure and property development, including roles and obligations of parties and those parties which will sign the PDA

27. Risk Transfer
   - The affect of the DCEC and infrastructure availability payments with respect to achieving the asset and operational KPI’s needs to be clearly identified
   - The management fees for the DCEC operator is to be broken down identifying each element

28. Competing Projects
− Government support of other projects can not be restricted – comment of how this will affect the business plan

29. Structure / underwriting / guarantees
− All consortium partners providing guarantees are to be identified including corporate and ownership structure, and term sheets
− Management and operating entities to be established are to be identified including legal name and ownership structure

RS 7 – Financial
30. Variable CPI and payments
− Confirm if availability payments can not be subject to CPI and any flow on effects this may have

31. Separation of infrastructure costs
− Government needs to understand applicable availability charges if infrastructure costs are separated, particularly for the DCEC to reduce these charges and be more efficient

32. Head-works contribution / responsibility
− The requirement of infrastructure head-works is to be further identified outlining roles, responsibilities and risks of each party

33. Elemental Cost Summary
− A breakdown of bid costs, contingencies and developer margins to be recovered as project costs are to be identified

34. Operation contract
− The DCEC operator cost components of base fee, incentive fee and capex are to be explained

35. Structured Car Park
− The funding for this building is to be explored further

RS 8 – Risk Allocation
36. Change in law
− Advise the effect of government not accepting the risk of Commonwealth Law changes.

37. Loss of DCEC Operator Replacement Risk
− Confirm what test will be put in place to provide government the comfort that a systemic problem relating to the management or maintenance of the DCEC will be remedied.

RS 9 – Project Documentation
38. PDA Lead Developer
− A single lead developer for the private elements is to provide a commitment to the PDA

39. Cross Default
− Government will relax the link for completion of DCEC and stage one private elements (property development) provided milestone and completion dates, and security is provided.

40. Document mark-up/ comment including revisions
− The proponent’s comment of “minor” drafting issues with the PDA may be considered by government as a material concern and these matters should be address for completeness and be exhausted.

41. Management involvement in the DCEC
− Confirm no adjustment to charges if government is prepared to change its proposal and have the operation functions as part of the Concession Deed and subcontract an Operator, rather than direct to government.

42. Definition of DCEC and Hand Back Assets
− Provide a detailed breakdown of the building components, sub lease areas and improvements which constitute hand back to government at the end of the concession period.

43. PDA / Titling issues
The details of titling and the suitability of two development leases for the relevant construction period is to be agreed.

**44. Key Issues Raised**
- A security bond amount is to be provided as a percentage of construction costs
- A KPI’s regime is to be provided and fully negotiated
- Concession Holder ownership changes will not be allowed without government entitlement
- Costs for a joint independent certifier are costed in the proposal

**RS 10 – Proponents Requirements of the Department/Territory**

**45. Provisional Cost Sums**
- Provisional cost sums are to be removed and additional information provided.