

## PROJECT INCEPTION: A PERFORMANCE BRIEF APPROACH

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**Abstract:** Clients need a process that can make a valuable contribution to the important strategic and decisive formative stages of a project. As a result, the project inception stage has been the focus of intense research activity in design, project management and facilities management for a number of years. The need to establish the project parameters and performance requirements has been an imperative in many organizations and facilities and project managers have been leaders in this process. Pre-design processes and activities are being instituted that work through the client's business case, strategic and organisational issues, identifying and refining the needs and requirements before the design team is involved. The participation of stakeholders in pre-design workshops is a common feature of these project inception approaches. These approaches prepare a clear and workable statement of the project requirements in performance terms that the client and user groups have committed themselves to. This strategic brief (or definition of the business case of the organization) can then provide a sound basis for the documentation of the favoured strategy and provide a sound basis for the development of the design.

One approach to these early stages of the project is *Strategic Needs Analysis*. *Strategic Needs Analysis* assists in these critical strategic stages in the development of a project. *Strategic Needs Analysis* workshops ask fundamental questions regarding the present way an organization carries out its activities. A range of solutions or options may be developed, some of which may involve a built solution or the delivery of facilities, new or existing.

The development of a performance brief for a new local authority library is presented. The application involved the development of a new library with community facilities for a local council. The process involved is described with the generation and selection of organizational strategic options using the *Strategizer* and *Situation Structuring* software with the council stakeholders. The creation and identification of user performance indicators to guide the design development process is illustrated and a sample of the final performance brief is provided. The project was completed and opened at the end of 2005.

**Keywords:** briefing; performance indicators; strategic needs analysis.

### 1 Introduction

A process is needed that can make a valuable contribution to the strategic stages in project inception (Construction Industry Development Agency, 1993). The process should confirm and extend the decision to build, that is, new-build, extend, renovate, upgrade, remodel. It must reflect the environment of the organisation by being sensitive to the strategic direction identified in the strategic management process by capturing the mission, vision and values expressed by the organisation (Woodhead and Smith, 2002). These must guide the process of considering alternatives to satisfy the strategic direction already determined. The process must also be useful, flexible, well organised, sensitive to client and *stakeholder* needs and objectives and designed to provide more effective, efficient, innovative and better solutions (Gray, *et al*, 1994; Kamara and Anumba, 2001). Wyatt (1999) discusses some of the established and newer approaches in policy-making and computer-aided decision-making. He has classified the major ones into four distinct categories of traditional, supporting, emerging and *frontier* packages, with extended descriptions of some of the computer software based techniques.

The features or characteristics that should be incorporated into the design of any methodology at this early should include the following characteristics:

- satisfy the principles of problem solving;

- create a number of strategic options for the future direction of the organisation;
- actively involve a range and number of different types of stakeholder;
- adopt a rigorous means of decision-making;
- allow each participant to contribute to the decision-making process irrespective of their position and role in the organisational hierarchy;
- involve those external stakeholders who can contribute to the development of a strategic direction;
- challenge organisational assumptions and prescriptive responses to service delivery;
- provide commitment to decisions made to improve their chances of implementation;
- be supported by senior management in the process and through to the decision, and
- provide sufficient, but not need an excessive time commitment to the approach and conclusion of the process. In other words, try and complete the process in as short a time as possible and preferably in a maximum of two days.

The conversion of these characteristics into a working document for use by clients (stakeholders) and the business and design team needs the use of a strategic document that can bridge the gap between these groups. This strategic brief with an emphasis on the required performance of the project needs to use a format, style and language all stakeholders and other groups can understand and use as a base for the development of the project. The term, *performance brief*, is an emerging one where the focus of the document is on the ends rather than the means with statements stakeholders can understand as clients and users of the project. Its emphasis is on the achievement of performance rather than the limited prescriptive approach that tends to inhibit innovation, effectiveness and efficiency. So, rather than state the area and types of spaces required a performance brief identifies the output and level or standard required for various characteristics needed in the new project. In fact, some of these performance statements may eventually be satisfied in a form other than by a built solution or space. A different form of organization (outsourcing or sub-contracting) or the introduction of new technology (greater automation or adoption of new forms of communications) may satisfy the performance requirement.

## **2 The Process**

A model termed, *Strategic Needs Analysis* (SNA) was developed and adopted. SNA was designed with the characteristics noted above in mind and with the aim of making a positive contribution to the inception of a project. It also starts with the premise that the solution delivered will be the most appropriate to satisfy the stakeholder's strategic needs and this is likely to be, but may not always be assumed to be a construction project. SNA is designed to make a valuable contribution to this important formative stage of a project. It reflects and is sensitive to the strategic direction identified in the strategic management process and so overlaps it.

An essential aim of the process was that stakeholders should broaden and re-orientate their frame of reference in defining projects (project inception) from the prescriptive and standard response, to one where they have a strategic view of their own organisation's true goals, objectives, needs and requirements. The organisation should develop a strategic framework for the delivery of their services, now and in the future. Any projects arising out of this process should be able to withstand scrutiny and justification both internally and externally (Quinn, *et al*, 1988; Thompson and Strickland, 1995). The identified options must be consistent with the strategic direction enunciated by the organisation in its strategic management process and statements. To withstand this type of examination the preferred strategy must have been developed as a result of a rigorous analysis and evaluation process.

The SNA process follows standard planning workshop, problem-solving approaches (Lichfield, *et al*, 1975; Rosenhead, 1989; Checkland and Scholes, 1990 and Popper, 1994). That is, the stages involve and divide into the following major activities:

- collect information to understand the nature of the problem;
- discuss and analyse the problem;

- develop options to solve the problem;
- decide on a preferred option or direction, and
- make a recommendation to implement the decision on the basis of workshop activities.

In practice, the Strategic Needs Analysis (SNA) became a three-stage process:

1. Information seminar (understand the problem);
2. Workshop One (develop appropriate options to solve problem), and
3. Workshop Two (decide and recommend).

### **3 Background to Study**

This study was the culmination of a series of action research studies. It was based on the analysis of the feedback from the evaluation surveys, the test analysis and personal observations about the process gained from six previous studies. These earlier studies provided the means and the vehicle for the testing and development stage of SNA. Analysis and reflection of the results and experiences gained in these studies provided information and guidance for making changes to the organisation and conduct of the SNA workshops and use of the *Strategizer* software used in the decision-making stages.

No major changes were made to the basic structure of the SNA process during any of the studies and for this final test case study. The most significant change adopted was the decision to create and develop participant-based strategic themes or elements, and to then coalesce them into the final distinct options. In the study immediately prior to this one the author as the facilitator worked with the participants to group their themes into the final options. The response from the participants was positive and this approach pointed to an important product of the SNA process; the development of agreed and realistic options. The development and creation of participant-supported options appeared to be a critical feature in any strategic client briefing process, as without agreed options the process would be doomed to failure. Therefore, options development must be a critical feature of any early stage briefing.

In this study the author decided to test and gain assistance from an additional computer software program, *Situation Structuring*. From informal author test trials this program had the potential to assemble, or cluster, seemingly disparate characteristics and performance requirements (called elements in the software) into related groupings after interrogating participants on their views of these stakeholder-generated characteristics. The author of *Situation Structuring* is Dickey (1995) and the software is described in Wyatt (2000). In essence, the software program and activities aim to combine diverse elements of a problem (people, places, objects) into coherent groups. This enables these simpler and more manageable groups to be considered one at a time. That is, the total problem is broken down into its major and distinctive elements (or clusters) and by carrying out such an analysis the process provides a trade-off between simplicity and homogeneity (Dickey, 1995).

The *Situation Structuring* process involves four distinct stages:

1. Identification of major elements, or in our case strategic themes, characteristics or directions (people, physical objects, emotions and the like) in the problem or situation;
2. Identification of important ‘dimensions’ inherent in the situation, such as the general ranges of measurement from good-bad, new-old, healthy-sick, personal-impersonal;
3. Rating (by the individual or group) of each element on each dimension;
4. Statistical grouping of the elements (clustering) on the dimensions to find the most favourable balance between simplicity (few groups) and homogeneity (similarity of elements within groups).

The software has been designed for generic problem-solving environments and this author believed that such a process could assist in the grouping of all the range of participant identified themes from the workshop brainstorming session. These groupings would then form the basis of an agreed range of options for scoring by *Strategizer* at the end of the first workshop. *Situation Structuring* software could thereby provide the

important link and technical structure to the critical process of options development and agreement. So, this study adopted the software to test in this situation.

In addition to the adoption of *Situation Structuring*, the SNA continued its use of the latest version of the *Strategizer* software to aid in the decision-making process after the options have been created during the later stages of the workshops.

### 3.1 Project Context

The Manager of Corporate Assets was keen to use SNA as a means of clarifying the uses and in identifying potential users of the Library and Community Facilities. He recognized that this was an opportunity to encourage stakeholder involvement, identify new approaches and generate ideas and commitment to the project. Recognition of the library and community facilities within a neighbourhood shopping area (Urban Village) as a key attractor and generator of customer activity played an important part in opening the planning process to stakeholders in this type of workshop setting. The first discussions for this local council based study began in late January 2000, when the author made contact with the manager of Corporate Assets at the council. The low to medium density urban area covered by this council was in the eastern middle suburbs of Melbourne, lying around 10 kilometres from the CBD.

At the first meeting between the author and the Corporate Assets Manager the subject of using a SNA process on the redevelopment of one of its libraries was discussed. The Council had commissioned a report on library services in the municipality and this resulted in an internal review report, *Library Facilities Assessment Review*, dated July 1999. This report recommended the redevelopment of the subject library as a joint facility in a new community centre.

After two briefing meetings with the Corporate Assets Manager it was agreed that the SNA would proceed as quickly as possible. It was agreed to save time that a briefing session for stakeholders would not be necessary. The manager would contact stakeholders and inform them about the process. That is, an Information Session was discarded for this application. An *Information Pack* was compiled by the author and was then distributed to all stakeholders prior to the first workshop. The Corporate Assets Manager was confident that the author could assume that all participants were fully aware of the context and direction of the proposed facilities.

The main activities of this study took place over a period of eight months and consisted of the following main stages:

1. Acceptance of strategic needs analysis on this project.
2. Senior managers briefing.
3. Production and circulation of Stakeholders *Information Pack*.
4. Strategic Needs Alternatives Workshop one.
5. Strategic Needs Decision Workshop two
6. Completion of brief by author and presented to Client.

### 3.2 Aim

The aim was to develop a strategy that would take into account the needs and opportunities available from developing a site in the Urban Village. The wide ranging review required by SNA would involve a number of stakeholders from which the Corporate Assets Division (in conjunction with the author) could eventually prepare a performance brief for the agreed strategy.

## 4 Workshop One

This workshop took place in a general meeting room at the Council Offices. The author facilitated this workshop to gain a better understanding of the revised approach to SNA. The process in workshop one

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consisted of the same number of steps in SNA, except that steps 1 to 3 were made explicit because of the use of the *Situation Structuring* software. All the steps are summarized in Figure 1.

The participants were encouraged to identify the characteristics and their concerns about the project. No attempt was made at this early stage to limit the concerns. However, where there was an overlap of concepts an attempt was made to ensure that obvious duplication did not occur. A list of stakeholder concerns was developed, reviewed and discussed by the group. The final agreed list of 17 characteristics (or elements) is shown in Table 1.

Once the full list of stakeholder concerns were identified and described they were then reviewed and discussed by the group. This produced a more refined and redefined list of concerns with fewer overlaps and repetition of the same concept. The refined list reduced the stakeholder concerns from 17 to 15 in number. These were summarised and are listed in Table 1.

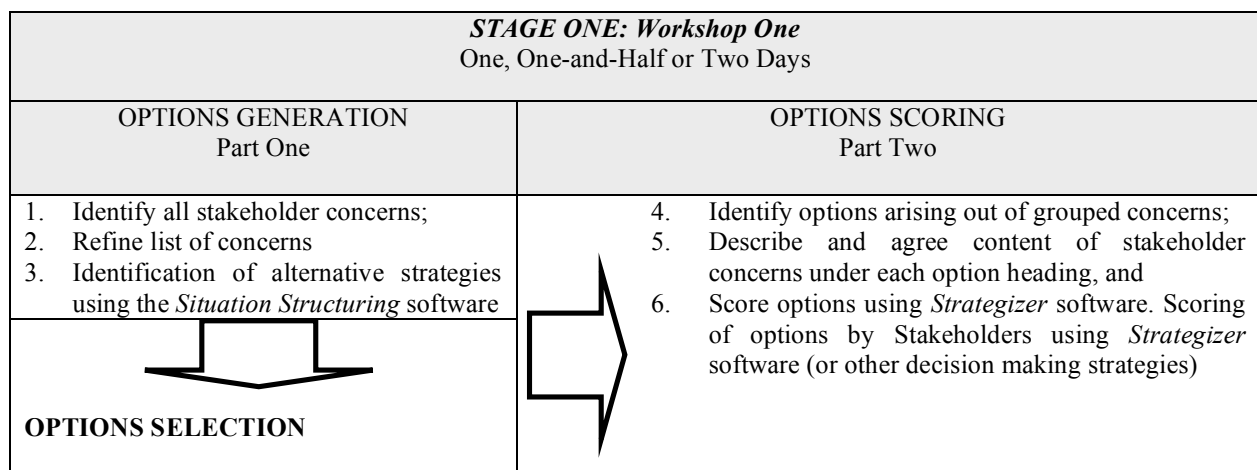


Figure 1 Workshop One Activities

Table1 Stakeholder Concerns Defined and Refined

Identified Concerns	Refined List of Concerns
1. Provide a sense of ownership	1. Interrelationships between uses
2. Efficient / effective facility	2. Profile of council
3. Adaptable/flexible facility	3. Service delivery
4. Civic presence	4. Extent of commercial uses
5. Recognition/local context	5. Commercial viability
6. Satisfy community needs	6. Council viability
7. Help create a sense of community	7. Sensitivity
8. Enhance service delivery	8. Community ownership
9. Improve/redevelop neighbourhood appearance	9. Accessibility
10. Enhance economic viability of village	10. Flexibility
11. Improve access	11. Effectiveness of individual service
12. Distinctive sustainable environment	12. Sustainability
13. Emphasis on people	13. Environmental efficiency
14. Expand space for uses	14. Security
15. Replace under performing/obsolete facilities	15. Diversity
16. Reflect diversity of community	
17. Change/grow to reflect community	

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The fifteen refined stakeholder concerns above were measured and analysed by the group within the *Situation Structuring* software (Dickey, 1995; Wyatt, 1999). This analysis produced three groups of linked or related concerns. The features of these three common groupings were discussed and eventually placed under working titles chosen by the author to reflect their common approach or relationship. These titles were necessary to capture the essence of the grouped concerns in order to ‘trigger’ a common understanding of the emerging option.

The titles agreed by the participants under the common groupings are summarised in Table 2.

Table 2 Details of Options

<b>OPTION 1 Workable</b>	<b>OPTION 2 Council perspectives</b>	<b>OPTION 3 Community satisfaction</b>
<i>Efficient, Effective, Pragmatic</i>	<i>Building Statement, Civic Presence, Best Practice</i>	<i>Integration, Belonging</i>
• Service delivery	• Profile	• Sensitivity
• Flexibility	• Extent of commercial uses	• Community ownership
• Sustainability	• Council viability	• Accessibility
• Security	• Environmental efficiency	• Diversity
• Interrelationship between uses	• Commercial viability	• Interrelationship between uses
• Effectiveness of individual service		

The groups were summarised under these working titles with the related concerns or characteristics listed. In addition, the group decided to add additional descriptive *keywords* that attempted to capture the essence of that grouping of concerns and to provide a focus for understanding the difference between the options. Those present at the workshop agreed that these groupings appeared logical and sound, providing a good basis for expanding the identified concerns into broader statements to provide a better description of the eventual option to be developed.

The participants concentrated on each stakeholder concern in turn. Details of the content of each concern was discussed, agreed and documented during the workshop using an electronic whiteboard. The finally agreed content of each concern is given under the appropriate option heading in Table 2. The three options (Workable, Council Perspectives and Community Satisfaction) group the stakeholder concerns as noted by the group and listed above in Table 2 were agreed by the participants.

The participants also believed that in the first section, Workable, under the category of *service delivery* there should be further elaboration of uses into of existing uses and of potential uses that should be considered in the development of the new facilities. These were developed, agreed and are shown in Table 3.

Table 3 Identification of Existing and Potential Uses

<b>EXISTING</b>	<b>POTENTIAL</b>	
▪ library	▪ service centre	▪ immunisation
▪ youth services	▪ business/commercial use	▪ information on council
▪ playgroup	▪ meeting space	▪ library administration
▪ three-year old activity	▪ maternal and child health (outreach)	▪ toy library
▪ neighbourhood program	▪ education training rooms	▪ display area
▪ senior citizens	▪ business <i>incubator</i>	▪ council adult learning centre
▪ open space	▪ library program and events	▪ coffee shop
	▪ residential accommodation	▪ Internet café
	▪ visiting services	▪ post office

The Workshop also discussed the inclusion of a number of *wildcard* options to test the demand for a non-conventional approach. A *Do-Nothing* option was rejected because it was agreed that from the ideas and commitment of the group that such an option would serve no useful purpose in the analysis in this situation.

After a brief discussion it was decided that two further options only (High Rise and Transportation Hub) would be included in the final list of options. All the five options noted include the provision of the library, but with distinctive emphases in the joint development. The final list of options was scored by all workshop participants with the *Strategizer* software at the end of the workshop were:

1. Workable
2. Council Perspectives
3. Community Satisfaction
4. High Rise
5. Transportation Hub

Participants then scored each of the five options privately and individually on laptops provided using the *Strategizer* software. The scoring process brought workshop one to an end.

## 5 Workshop Two

After a short break of five days workshop two was convened to finalise the SNA process. The steps required to complete the SNA in workshop two and to complete the performance brief are summarised in Figure 2.

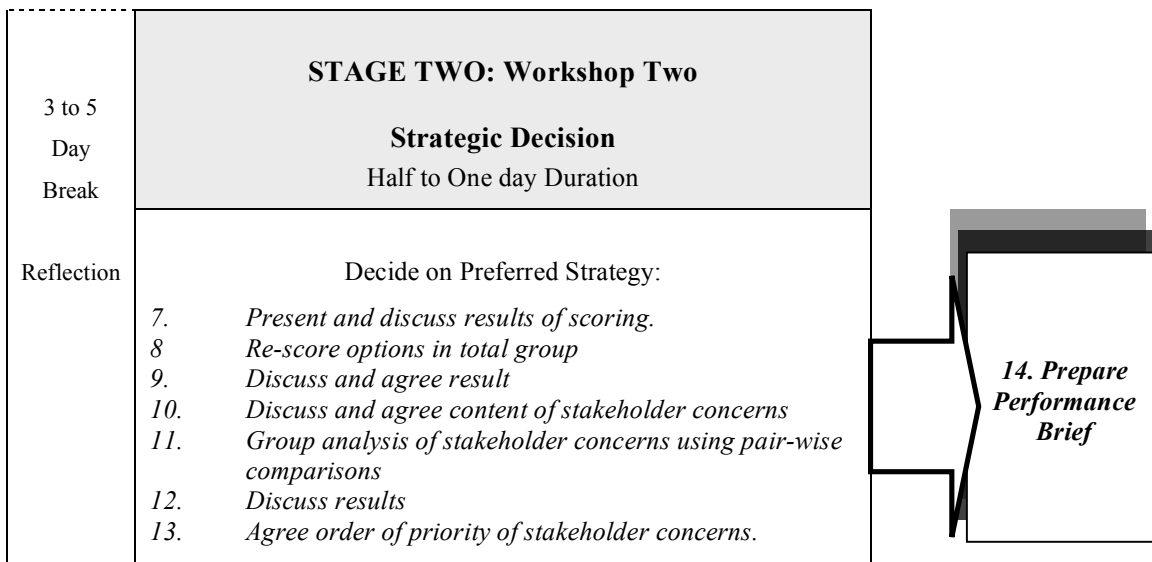


Figure 2 Workshop Two Activities

When the Options’ scores of all participants were analysed they showed the following results for the five options. See Table 4 for details of the scoring for each option. The scale used on the *Strategizer* software was a ten point positive and a ten point negative flexible, visual and interactive screen-scoring button for each criterion and each option. Table 4 shows the consolidated criteria scoring for each option.

A review of Table 4 indicates that the late entrant options, “High Rise” and “Transport hub” did not fare well in the scoring. They have high negative scores and compared to the other three options (with positive scores) cannot be considered as serious options in the final analysis.

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Table 4 Options’ Scores: All Participants

OPTIONS	WORKABLE	CIVIC	COMMUNITY	HIGH RISE	TRANSPORT HUB
AGGREGATE	3.8	3.5	3.8	-2.5	-1.6

The options were re-scored by all participants working together in the workshop and the scoring for each of the criteria was agreed using a visual display of the *Strategizer* screen shown to all participants. Each score was entered for each strategic criterion for each option. The advice given by the software is given in Table 5. The first three options remain close in scoring, with the Community option being favoured slightly more by the group than in the earlier individual consolidation of scoring (Table 4).

Table 5 Options’ Re-Scoring: All Participants

OPTIONS	WORKABLE	CIVIC	COMMUNITY	DO-NOTHING
AGGREGATE	2.9	2.6	3.2	-3.7

The participants in the workshop decided that the results were not conclusive enough to favour any single option. All three options were so close it was agreed that the characteristics or concerns from each option should be blended into the final performance brief for the project. The selection of a single option from the ones developed was, therefore, not considered. The workshop agreed to concentrate on first of all, of refining all the 15 stakeholder concerns developed in workshop one.

The refined final listing of stakeholder concerns given earlier in Workshop One (See Table 1) represents the final summary of the content of each concern. These were agreed by the workshop before it proceeded to compare and prioritise them.

The workshop group reviewed the list of fifteen stakeholder concerns and decided to prioritise these to provide the design team with guidance about their strength of feeling towards each one. The group then made a paired comparison of each concern scoring one concern against the others in turn on a ten-point scale running from, *overwhelmingly more* (9) to *overwhelmingly less* (0). The results are summarised in Table 6.

The workshop group discussed and reviewed the analysis in Table 1 and agreed that it fairly represented the group’s stakeholder concerns. The group then agreed that the listing of stakeholder concerns provided a sound basis for developing the *Performance Criteria* for the proposed project. The process adopted for scoring stakeholder concerns was through a pair-wise comparison using the whole group to make decisions. So, the facilitators worked methodically through each stakeholder concern, discussing it and then matching it with every other stakeholder concern and gaining the group’s approval as to which was superior, inferior or equivalent, to its paired alternative. The scoring is shown in Table 6 and is based on a 10 –point scale as noted in Table 6. Rather than give each of the criteria a single priority it was decided to group the criteria into three levels of priority; high (key), moderate (essential) and low (significant).

The workshop group discussed and reviewed the analysis in the above figure and agreed that it fairly represented the group’s order of priorities in their stakeholder concerns.

The group then agreed that the listing of stakeholder concerns provided a sound basis for developing the *Performance Criteria* for the proposed project. Rather than give each of the criteria a single priority it was decided to group the criteria into three levels of priority. These are given in Table 7 with the individual criteria listed against each level.

A Performance Brief was prepared based on these criteria. The brief was prepared within one week of the completion of the workshops and sent to the client for any additional Council and service department detail to be provided by the participants. The detail on each criterion provided by participants in the workshop provided the basis for the final contents of the performance brief.

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Table 6 Summary of Group Scoring of Stakeholder Concerns

ELEMENT	Services	Accessibility	Security	Council Viability	Effectiveness	Relationships	Flexibility	Urban Design	Community	Sustainability	Diversity	Env.	Commercial viability	Profile	Community uses	TOTAL SCORES	
Services	0	5	4	5	5	7	6	7	6	6	6	6	7	5	9	Services	84
Accessibility	4	0	5	4	5	7	7	5	5	6	5	6	7	7	8	Accessibility	81
Security	5	4	0	4	5	6	6	6	6	5	7	4	6	6	8	Security	78
Council V'bil	4	5	5	0	5	8	5	5	5	5	5	5	7	6	7	Council V'bil	77
Effectiveness	4	4	4	4	0	5	5	5	5	6	6	6	6	7	8	Effectiveness	75
Relationships	4	2	3	1	4	0	5	5	6	5	5	5	5	8	9	Relationships	67
Flexibility	3	2	3	4	4	4	0	4	4	5	5	6	5	6	7	Flexibility	62
Urb Design	2	4	3	4	3	4	5	0	6	5	4	5	5	4	7	Urban Design	61
Community	3	4	3	4	4	3	5	3	0	5	4	5	5	5	8	Community	61
Sustain	3	3	4	4	3	4	4	4	4	0	5	5	5	5	5	Sustain	58
Diversity	3	4	2	4	3	4	4	5	5	4	0	5	5	5	5	Diversity	58
Env. Efficiency	3	3	5	4	3	4	3	4	4	4	4	0	4	5	5	Env. Efficiency	55
Comercial V'bil	2	2	3	2	3	4	4	4	4	4	4	5	0	5	6	Comercial V'bil	52
Profile	2	2	3	3	2	1	3	5	4	4	4	4	4	0	7	Profile	48
Comm Uses	0	1	1	2	1	0	2	2	1	4	4	3	3	2	0	Comm Uses	26

Key: 9 = overwhelmingly more; 8 = massively more; 7 = a lot more; 6 = more; 5 = slightly more;  
4 = slightly less; 3 = less; 2 = a lot less; 1 = massively less; 0 = overwhelmingly less.

Table 7 Priority Levels and Performance Criteria

PRIORITY	CRITERIA
1. Key Performance Criteria:	Service Delivery Accessibility Security Council Viability Effectiveness of Individual Service
2. Essential Performance Criteria:	Interrelationship between Uses Flexibility Community Ownership Sensitivity of Urban Design
3. Significant Performance Criteria:	Diversity Sustainability Environmental Efficiency Commercial Viability Profile of Building Extent of Commercial Uses

## **6 Outcome**

After eight months of activity the library project reached a hiatus soon after completion of the SNA and the production of the performance brief. The Corporate Assets Division reviewed the draft performance brief and few changes or additions were made. This brief was then approved by Council and then formed the basis of calling tenders for design consultants. The final performance brief and outline proposal drawings for the scheme were completed in October 2002. Final documentation of the project was completed in September 2003. The tenders were called in early 2004 and construction work started in June 2004. The project was completed in August 2005.

## **References**

- Checkland, P B and Scholes, J (1990) *Soft Systems Methodology in Action*, Wiley, Chichester, UK.
- Construction Industry Development Agency (CIDA) (1993) *Construction Industry Project Initiation Guide for Project Sponsors, clients and Owners*, Commonwealth of Australia, Canberra.
- Dickey, J W (1995) *Cyberquest: Conceptual Background and Experiences*, Ablex, Norwood, New Jersey, USA.
- Kamara, J.M., and Anumba, C.J. (2001). A Critical Appraisal Of The Briefing Process In Construction. *Journal of Construction Research* 2(1), pp.13-24.
- Lichfield, N, Kettle, P, Whitbread, M (1975) *Evaluation in the Planning Process*, Pergamon Press, Oxford.
- Popper, K R (1994) *The Myth of the Framework: In Defence of Science and Rationality*, (Edited by M A Notturmo), Routledge, London, P.101.
- Quinn, J B, Mintzberg, M and James R M (1988) *The Strategy Process Concepts, Contexts and Cases*, Prentice Hall, USA.
- Rosenhead, J (1989) *Rational Analysis for a Problematic World*, Wiley, Chichester, UK.
- Thompson, A A and Strickland, A J (1995) *Strategic Management: Concept and Cases*, 8<sup>th</sup> edition, Irwin, Chicago, Illinois, USA.
- Woodhead, R and Smith, J (2002) The Decision to Build and the Organization, *Structural Survey*, 20, 5, pp. 189 -- p198, Emerald Press, Bradford, UK. ISSN: 0263-080X
- Woodhead, R M (2000) ‘Investigation of the Early Stages of Project Formulation’, *Facilities*, 18, (13/14), pp. 524-534.
- Wyatt, R (1999) *Computer-Aided Policy Making: Lessons from Strategic Planning Software*, E & F N Spon, London.