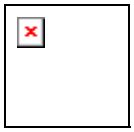
COMMITTEE OF INQUIRY INTO BUILDING COSTS: INTERIM REPORT

Presented to the States on 4th July 2000
by the Committee of Inquiry



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COMMITTEE OF INQUIRY INTO BUILDING COSTS IN JERSEY

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COMMITTEE OF INQUIRY INTO BUILDING COSTS - INTERIM REPORT

Foreword

The Committee has sought to identify the main issues raised during its inquiry into building costs in Jersey. The exchange of views has been encouraging, wide-ranging and serious. The Report makes a number of recommendations throughout to tackle the problems revealed during the consultation process. Some of those recommendations apply directly to the industry, others to Committees and Departments of the States. The recommendations address both micro and macro issues and the need to develop a new culture in which teamwork can be promoted to deliver better performance and greater fairness to all involved while not ignoring the commercial realities. Some proposals require further investigation and the Committee has highlighted where this further research may be most appropriately undertaken.

The Committee was required to discharge extremely wide terms of reference and this could not have been achieved without the help of many people who gave freely of their time and expertise to assist the Committee in its deliberations. Particular thanks must go to Sir Michael Latham, Sharron Taylor and Nigel Barr of James R. Knowles, Simon Kolsar and Kevin Eccles from the firm of E.C. Harris, and David Roberts, Chief Quantity Surveyor of the Public Services Department, who provided the Committee with clear, concise, detailed information and advice. Both the Jersey Construction Forum and the Waterfront Sub-Committee of the Chamber of Commerce have also given invaluable support for which the Committee is extremely grateful. The Committee would also like to take this opportunity to express its appreciation to Bevan Anthony and Malcolm Chambers for performing the duties of Executive Officer and also to Margaret Marquis and Carol Le Quesne for providing their services as Committee Clerks. There were many others, too numerous to mention who deserve similar thanks for having given information and encouragement to the Committee. This, the Committee feels, bodes well for the future of the industry in the Island.

The Committee has tried to produce a balanced package which offers hope to all, reassurance to some, but despair to none. Jersey deserves the best building industry we can possibly achieve. There have been some excellent initiatives in both quality and design but there are still a number of problems to be addressed. Jersey deserves a construction industry that delivers total quality, right first time, on time and within reasonable cost.

The challenge to the Committee of Inquiry was not only to investigate higher building costs but also to find a way forward to achieve cost savings for the future. The Committee believes this Interim Report goes some way to achieving these aims and the challenge is now for the States and the construction industry to implement the recommendations in timely fashion.

WENDY KINNARD
President,
Committee of Inquiry into Building Costs.

1.0 Introduction

1.1 The decision to establish a Committee of Inquiry

On 17th November 1998, the States adopted a proposition of the Finance and Economics Committee, and approved the establishment of a Committee of Inquiry in accordance with Article 30 of the States of Jersey Law 1966 to investigate fully the cost of building projects in Jersey.

In the report accompanying the proposition, the Finance and Economics Committee stated that it believed that the time was right to set up a States Committee of Inquiry to investigate the high cost of building projects in Jersey rather than through a working party as had previously been the case in 1987 and 1993. An authoritative investigation was needed to discover which elements actually make up the higher local building costs and how much each of the different elements contributes to the excess overall costs. This acquired knowledge could then form the base, from which conclusions could be drawn, as to whether it is possible to propose ways in which building costs locally could be reduced.

The Finance and Economics Committee recognised that any recommendations from a Committee of Inquiry which led to even a small percentage reduction in local building costs would result in significant savings for the States Capital Programme running into millions of pounds of public money, and would also assist first-time buyers who were finding the prices of suitable properties beyond their reach.

1.2 Membership

The Committee of Inquiry appointed by the States comprised -

Senator W. Kinnard, President
Deputy M. E. Vibert
Deputy H. H. Baudains
Deputy A. Breckon
Deputy K.W. Syvret, M.B.E.

1.3 Terms of reference

The terms of reference of the Committee were -

> *"to investigate fully the cost of building projects in Jersey and to report back to the States with such recommendations (if any) as the Committee considers to be appropriate".*

In undertaking its task the Committee was mindful of the fact that much good work had previously been undertaken by working parties into various aspects of building costs, the results of which needed to be updated to the situation appertaining now and to be drawn together into a comprehensive and cohesive report. Much of the evidence would be technical in nature, and the Committee recognised that it would need expert assistance to interpret the information presented to it.

1.4 Methodology

As the inquiry concerned the activities of the building industry in Jersey, with a significant amount of information of a commercially sensitive nature, the Committee agreed that its meetings should not be open to the public and that all evidence should be considered in private.

The first meeting of the Committee of Inquiry took place on 26th January 1999, and the Committee met on 13 occasions.

By public notice placed in the Jersey Gazette in February 1999, individuals and organisations with an interest in the issue of building costs were invited to write to the Committee before 31st March 1999. The Committee received a total of 42 written submissions from individual organisations and these are listed in Appendix 1.

A total of 35 reports and publications were considered by the Committee covering a wide range of topics relating to building costs and procurement methods, and these are listed in Appendix 2.

The Committee also discussed modern procurement methods with Sir Michael Latham, an acknowledged expert in this field, and arranged a series of workshops on the topic run by the firm of James R. Knowles, again expert in this field. Details of these workshops are contained in a file of background material available for viewing at the States Greffe. A summary of the way forward is contained in Appendix 3.

The Committee also commissioned a detailed cost comparison exercise from the firm of E.C. Harris, an international firm of chartered surveyors, to investigate the comparative costs of constructing housing and office accommodation in Jersey and southern England. The method and results of this exercise are contained in Appendices 4a and 4b.

Finally, over a period of five days between 31st January 2000 and 28th February 2000, the Committee interviewed in closed session representatives of organisations connected with the local construction industry. These are listed in Appendix 5. The Committee was assisted at these hearings by Mr. Simon Kolesar, an expert adviser from the firm of E.C. Harris.

2.0 Background information

2.1 The nature of the construction industry

The United Kingdom Department of the Environment's definition for the industry is as follows -

> *"Operations including buildings, civil engineering and specialist contracting, as well as other activities where the major element of the work is building, civil engineering, or the installation of products and systems, either in buildings or in association with civil engineering works."*

The actual definition goes further, giving examples of the wide range of activities involved in the construction process, from block laying to glazing. It is clear that the sheer number and diversity of trades and professions involved in the process often results in a series of supply chains that are both complex and difficult to co-ordinate.

The structure of the construction industry as a whole can be analysed in terms of demand and supply. On the demand side, the total market can be segmented in terms of the type of work required, including housing, infrastructure, commercial, and so on. The level of activity in the repair and maintenance sectors may vary according to economic influences. For example, in times of recession, many clients may reduce their capital investment in construction work, opting to repair and maintain existing facilities instead. The supply side is also fragmented. Builders, engineers, architects and surveyors are represented by a number of separate bodies, each looking after the interests of their respective members. Construction also requires input

from other specialists, such as mechanical and electrical engineers. The contracting component of the supply side is also segmented, for example, in terms of civil engineering and general building.

There are also different sizes of firms. In Jersey, we have only a small number of larger firms able to carry out major contracts. At the other end of the scale, there are a larger number of small firms who carry out the vast majority of work on the smaller projects for private clients. That said, even the largest establishment (58 employees) would be considered small elsewhere in Europe. 60 per cent of the workforce is employed in firms of fewer than twenty people. A high proportion is self-employed, for example, 40 per cent of architects and 23 per cent involved in construction trades do not employ others.

At the time of the last Census in 1996 construction accounted for 49 employees per thousand population and provided the third largest source of employment after financial services and distributive trades. According to the Census figures, 71 per cent of construction employees are residentially qualifications.

2.2 States Strategic Policies

The States, in adopting the strategic policy proposals in “2000 and beyond”, in 1995, set as an objective -

> “To sustain an efficient and cost competitive local Construction Industry”.

The importance of this objective lies in the fact that the investment programme for the private and public sectors relies upon the construction industry. This industry therefore is an essential element in the achievement of the strategic policy objectives adopted by the States. For example -

- To develop a programme of urban renewal.

- To ensure the full employment of the resident population and the full development of their skill potential.

- To encourage the balanced and diversified economy in such a way as to limit its vulnerability to external shocks and changes in market climate.

- To encourage a level of business activity sufficient to achieve a standard of living for Island residents that is comparable with that enjoyed in neighbouring countries.

- To encourage business activity at a level and of a nature that serves to enhance and not detract from the natural and built environment.

- To ensure that the Finance Industry has adequate resources to support the desired further strengthening of the Industry and its diversification.

- To ensure that the Tourism Industry maintains its present contribution to the economy of the Island, and to the employment of Island residents both directly and indirectly.

- To encourage further improvements in the Tourist accommodation and services.

- To encourage private and public investment in the Tourism Industry that is supportive of a general theme of a high quality product which is in accord with the Islands environmental objective.

- To ensure that all individuals living in the Island are adequately housed.

- To ensure that every individual has the opportunity to reach their full potential through education and training.

- To provide a standard of social services comparable with that to be found in neighbouring countries.

- To promote Jersey's own heritage and culture.

- To provide adequate leisure facilities for residents to enjoy.

- To ensure that existing buildings are maintained to an acceptable standard.

Taking these strategic objectives together it is obvious that the construction industry has a vital role to play. It is therefore important that the Industry should have the resources to perform that role and that it should also not frustrate the process by imposing unnecessary costs upon the private or public sectors.

The level of construction costs has an importance for the public sector in the best use of public funds in supporting the States capital investment programme. For those sections of the economy that are most dependent upon investment in new buildings or in improvements to existing buildings, such as the tourism industry, the cost of building by comparison with the cost in competing markets is a cause of continuing concern.

Other concerns have focused upon the effects on inflation generally, on property inflation, and on the affordability of housing to our young people.

It seems that as an Island community we are not alone in facing these problems. A recent article in "The Economist" noted that in the Cayman Islands, cement costs are US$200 compared with US$70 per cubic yard in America. With taxes and transport costs, local building costs there are 15 per cent to 30 per cent higher than America. ("Tropical Blues" the Economist, April 29th 2000). Such revelations encouraged the Committee to try to delineate which problems were the result of us being an Island community and not easily changed and those factors which could be addressed to improve matters.

2.3 Previous Reports

There have already been a number of excellent Reports into the high cost of building undertaken by Working Parties and the Trade and Industry Sub-Committee under the Chairmanship of ex-Senator Tony Chinn.

The following Reports were considered by the Committee:

- Trade and Industry Sub-Committee: Report on Commercial Floor space (R.C.36/96)
- Trade and Industry Sub-Committee: Report on the Local Construction Industry (R.C.35/96)
- Trade and Industry Sub-Committee: Report on Non-Local Competition (R.C.32/96)
- Trade and Industry Sub-Committee: Report on Freight Costs (R.C.31/96)
- Building Materials Prices Working Party: Report (R.C.34/93)
- Building Costs: Working Party Report (R.C.6/87).

The Housing Committee's "Working Party Report into Building Costs" (R.C.6/87) commented that higher building costs in Jersey could be justified by freight charges, lack of economies of scale and planning requirements and specifications. That Report recommended greater standardisation and bulk ordering of materials, fixed price tendering, better programming of when development is allowed to take place and greater cost control through the use of quantity surveyors and support resources. The "Building Materials Prices Working Party Report" (R.C.34/93) concluded that the buoyant market conditions in the Island contributed to construction prices being higher than in most parts of the United Kingdom. In addition, in the case of concrete and concrete based products, a lack of competitive pressure was found to be significant. The working party recommended fixed price tendering, encouragement of greater competition, the abolition of the ten per cent differential between the lowest tender achieved from a local contractor and a tender received from a contractor based elsewhere (although, in the event, the States agreed to reduce the differential to five per cent), and the granting of licences to non-local contractors to operate in the Island. The Trade and Industries Sub-Committee investigation into freight costs (R.C.31/96) recognised that while the impact of freight costs was not imposing an undue burden on local business generally, it was a burden for the construction industry. Harbour dues were noted as being relatively high in comparison to other ports and the structure of harbour dues particularly penalising the construction industry. The Sub-Committee concluded, however, that the higher price of goods and services could not be justified by freight costs alone.

The Trade and Industry sub-Committee Report on non-local competition (R.C.32/96) recommended the introduction of a training levy, possibly in place of the ten per cent protection rule for the local building industry. The concept involved non-local firms funding training for qualified residents living and working in the Island. The Report also drew attention to monopolies and recommended that the States should actively support fair competition in all sectors of the economy.

The Trade and Industry Sub-Committee Report on the local Construction Industry (R.C.35/96) considered that the main recommendations of the Latham Report (1994) were appropriate in many instances in Jersey.

The Report also recommended that the Public Finances Law be changed to allow the States to negotiate tenders on a "best value for money" basis rather than being required to always accept the lowest tender. This has since been achieved.

Designers and engineers were encouraged to consider alternative methods of design and specification in order to use fewer of those materials which are expensive in the Island, and to consider the use of system type buildings. It was also recommended that legislation be enacted to protect payment of sub-contractors.

The Committee noted that these previous Reports analysed discrete areas of potential high costs, assessed how far these could be justified and suggested ways to achieve greater efficiencies and competitiveness. There were areas, however, which warranted further investigation. In addition, since the previous Working Party Reports were completed there have been a number of changes outside the control of the industry. The return of a buoyant economy and the tightening of the Regulations and Undertakings and Development Law are examples that came easily to mind. The effects of these factors required evaluation against those factors under the control of certain sections of the construction industry.

The Committee was assisted in identifying the various elements affecting construction costs in Jersey by Consultants James R. Knowles. The Flow Chart at Appendix 6 highlights the relevant factors to be considered in a small sophisticated market. Essentially the Flow Chart identifies both "building costs" and the "cost of building".

"Buildings costs", narrowly defined, are the actual elements of construction, labour, plant and materials. They are affected by such factors as supply and demand, the cyclical nature of workload, monopolies, harbour dues and the high cost of living.

The "cost of building" is affected by a diverse range of factors. These can be categorised into three main headings of Design, construction and selling. Design factors include site restrictions, building bylaws, quality expectations, design specification, maintenance requirements etc. Construction factors affecting the cost of building include lack of economies of scale, public utility costs, the costs of labour, the tendering process and procedures. The final cost of the end product to the client is also affected by land costs, fees, developers' profits and legal costs etc. (Liddiard, D. "Report on Building Costs", Business to Business March 1999).

The Committee was of the view that all of the above factors must be taken into account during the investigation and that any analysis must be placed in a wider context to include relationships and processes. That there is a need to improve the construction process in the Island, the Committee agreed, would generate very little dissent.

The Committee looked to other jurisdictions to assist their knowledge and deliberations. In the United Kingdom there has been a series of studies and reports since the Second World War.

2.3.1 The Latham Report

The most significant report on the construction industry in recent years was written by Sir Michael Latham and was entitled "Constructing the Team". The construction industry was criticised by Latham for an inability to innovate, slowness in adopting new technology and modern management methods. There was a recognition that the real cost of work was not reflected in competitive tenders resulting in an unpredictability of out-turn costs. A claims culture was developing with lengthy periods to settle accounts. Confrontation between parties had lead to a complete breakdown in trust throughout the construction industry. Sir Michael Latham recommended a modern contract with the following features -

- A specific duty for all parties to deal fairly with each other in an atmosphere of mutual co-operation.
- Firm duties of teamwork, with shared financial motivation to pursue "win-win" solutions.
- An interrelated package of documents which clearly defines the roles and duties of all involved.
- A choice of allocation of risks to the parties best able to manage and carry those risks.
- Provision for the speedy resolution of conflicts on site.
- Provision for incentives for exceptional performance.

The concept of partnering featured strongly as the means of turning around the construction industry.

Twelve working groups, representing bodies from all sectors have addressed the recommendations for change. The view taken in this approach is that contractors alone are not to blame; all sectors of the industry, including clients, have a major part to play.

2.3.2 The Egan Report

"Rethinking Construction" was published in July 1998 by the Construction Taskforce led by Sir John Egan. The Report builds on the firm foundations laid by Latham and provides a framework for radical improvement through modernisation in the United Kingdom construction industry so that it can secure its future. Egan was concerned that the industry as a whole was underachieving. Particular problems were identified such as: low profit margins; too little investment in training, research and development, and capital equipment; and client dissatisfaction.

The Report described to professionals in the Construction Industry how they could rethink or change the whole construction process through several methods which focus on customer satisfaction and product development. Teamwork again is seen as essential. Egan recommended the integration of the process and the team around the product, arguing that changing the fragmented project process was fundamental to increasing efficiency and quality in construction. The Report called for new methods for management including benchmarking, value management, team working, just in time, concurrent engineering and Total Quality Management. Egan argued that the successful combination of many of these developments would achieve significant improvements in the cost, time and quality of projects through a process of continuing improvement. Among other things Egan asked the industry to achieve an annual reduction of ten per cent in construction costs and time and an annual reduction of 20 per cent in defects in projects.

The Committee considered that it would be worthwhile to investigate the extent to which some of the initiatives being undertaken in the United Kingdom might be applicable to our local construction industry. To this end the Committee researched the concept of "partnering" and engaged partnering consultants James R. Knowles to arrange a series of workshops to gauge the level of receptiveness within the Island.

2.4 What is Partnering?

In short the concept can be reduced to the following elements -

- A non-legally binding Agreement.
- A structured management approach which drives the relationship between the partners.
- A procedure for making relationships work better.
- Pro-active, integrated management focused on achieving project objectives.

It is not a form of contract or a procurement mechanism. The partnering arrangements overlay the existing chosen procurement method.

Partnering emerged in response to problems in the construction industry in both the United States of America and the United Kingdom. The concept of partnering essentially borrows from the Japanese way of working – the "Keiretsu" structure. This is the Japanese way of doing business based on long-term relationships characterised by common goals and trust as an inherent part of the culture. (Townsend, M. (1996) "The Context of Japanese Best Practice", *Learning from Japanese Construction,* Construction Productivity Network Workshop, Water Services Association, London: CIRIA, quoted in Cox, A. and Townsend, M. (1998) *Strategic Procurement in Construction,* London: Thomas Telsford.)

The most recent definition of partnering was developed by the Construction Industry Board (Working Group 12) which builds on the thoughts and views of the Latham Report. The CIB Report borrows heavily from the work of the Reading Construction Forum defining partnering as "having the purpose of achieving specific business objectives by maximising the effectiveness of each participants resources through a relationship based on trust, dedication to common goals, and an understanding of each others expectations and values. It states further that "partnering is a structured management approach to facilitate team working across contractual boundaries….it should not be confused with other good project management practice, or with long-standing relationships, negotiated contracts, or preferred supplier arrangements, all of which lack the structure and objective measures that must support a partnering relationship".

There are a number of key attributes associated with partnering. These are the need for mutual objectives; an agreed method for early problem resolution; continuous measurable improvement; and for commitment from managers and all other participants.

2.4.1 Types of Partnering

The term partnering evokes different meanings to different sectors of the construction industry. Among the designers and builders of privately financed projects, partnering can be a strategic relationship that is developed for relatively long periods and for multiple projects. These strategic partnerships deliver many advantages. Private strategic partnerships have an advantage over their counterparts in the public sector. Public agencies must answer to lawmakers, regulators and the public. In addition, the necessity in Jersey of ensuring the sustainability of a number of smaller firms prevents the States from developing long-standing, strategic partnerships with just one or two firms. The project-partnering route is believed to be particularly well suited to public sector procurement, with its many constraints such as the need to demonstrate value for money and public accountability. (European Construction Industry Institute (1997) *Partnering in the Public Sector: A Toolkit for the implementation of Post Award, Project Specific Partnering on Construction Projects, Loughborough: Council ECI.)*

Recommendation 1: Partnering activities should best be focused upon single project, teambuilding seminars.

2.4.2 What are the benefits of Partnering?

The partnering approach based on the formation of teams focuses on adding value and improving the profitability of individual companies, through efficient working.

The reported benefits of partnering are many, for example -

- Exposure to litigation and time and cost over-runs should be reduced.
- Quality management, value engineering and efficient problem resolution are simplified.
- Mechanisms are put in place to share the burden of cost and time increases caused by changes.
- Prompt payment of all parties is an important ingredient of successful partnering.
- Efforts are made to foresee and forestall problems and disputes and to deal with them at the lowest level.
- Partnership will only succeed if there is provision for the partners to make a profit.
- The Reading Construction Forum Report claims that savings of between two per cent and ten per cent are possible with project partnering, while savings of 30 per cent or more are common using strategic partnering. (Bennett, J. and Jayes, S. (1995), *Trusting the Team: The best Practice Guide to Partnering in Construction*, Reading: Centre for Strategic Studies in Construction.)

2.4.3 Approaches to construction procurement

Procurement defines the way in which the necessary skills and services are organised to deliver a project successfully. The evolution of procurement in construction could be plotted on a date line starting with traditional tendering at one end through to procedures sympathetic to partnering at the other. In between one may include two stage tendering, design-build etc. Each new form of procurement has been developed in response to practical limitations that appeared in practice in previously popular methods. At first, there have usually been a number of notable successes, as the latest system is used under the conditions for which it was originally intended. Then, as its success gains momentum, the new approach may be used less and less appropriately. It then becomes a matter of time before it begins to become discredited and another new approach is required. Any system will clearly have its inherent strengths, weaknesses, and attributes that will render it ideal for a given set of circumstances.

What the client requires from a procurement strategy is that it takes on board all relevant factors and leads to consistently predictable outcomes.

2.4.4 Traditional methods of procurement

By the end of the Eighteenth Century the role of the architect as an independent designer of buildings was firmly established. At the beginning of the Nineteenth Century the general contractor emerged. These two parties, together with the quantity surveyor, produced a common format for contractors to price building proposals in competition. The underlying premise is that the contractor's price, given as a lump sum in a bill of quantity, should give an accurate representation of the cost of the work to be completed. From this model developed the process upon which the current standard forms of building contracts are based.

Traditional contracting is the most commonly used system in Jersey. It is designer-lead procurement with multipoint responsibility to the client. Consultants are appointed to design, prepare tender documents and administer the contract. The main contractor takes full responsibility, for programme, construction and standards of quality. A guide to the most commonly used procurement options and forms of contract, prepared by the States of Jersey Chief Quantity Surveyor can be found in the background file available for viewing at the States Greffe.

2.4.5 Conventional approach versus Partnering

In traditional approaches the client pays for the risks – usually at a premium rate. The contract encourages adversarialism. In a partnering arrangement the client pays for the risks but these are managed by the Team to minimise costs and delays, thus reducing the likelihood of a project going over budget or beyond programme.

2.4.6 Inappropriate allocation of risk in conventional approaches

No construction project is risk free, and that risk may be managed, minimised, shared, transferred, or accepted but not ignored.

It may well be possible to find contractors who will accept risk ordinarily borne by the client without passing on increased costs. This has only been achieved, however, when certain contractors have wished to obtain a foothold on the Island or have wished to increase their order book for external reasons.

The Latham Report analysed the various distributions of risk under the standard forms of contract and, in broad terms, how the client may assess it in advance. The Committee was pleased to note that this advance has been adopted by Treasury in carefully defining risk in advance of States projects being given the go ahead.

What is not always addressed, however, is the issue of unfair allocation of risk. A client, whoever they are, might make an unfair allocation of risk, in an attempt to reduce their own burden, either imposing risks upon the contractor that are best carried by the client, or by not providing for proper reimbursement of risks carried by the contractor. This appears to be fuelled by a desire to get "something for nothing", and can only lead to further adversarialism.

The majority of modern firms no longer employ their specialist trades people direct. There has been greater use of labour only sub-contracting. Sub-contractors may also further sub-contract sections of their work. There has been a move from the historic practice of "vertical integration" to an increasingly fragmented industry. Each component has become less trusting, more self-interested and adversarial. Effectively, each party attempts to pass risks down to the next layer in the supply chain in order to minimise their own exposure. Where the client attempts to impose all the risks on the contractor, the primary contractor perceives this as unreasonable, and passes on the same responsibilities to their sub-contractors. Little consideration is given to assessing which party is best qualified to manage the risk concerned. The net result is an industry structure with many potential points of tension and conflict, which ultimately lead to increased costs and reduced efficiency. Each party has its own particular needs and interests, which are not necessarily compatible with those of the other groups and individuals in the construction process. Clearly there are a number of distinct disciplines required to complete a construction project, but the manner in which these are co-ordinated and integrated will affect the efficiency and effectiveness of the construction process. There are too many "non value-adding" costs. The question arises as to what drives this industry structure? While there are many factors involved the primary force would appear to be the method of client procurement.

Adversarial practices are to the disadvantage of clients and they discourage the adoption of modern procurement processes, which would achieve better value for money and enhanced product quality. Avoidable disputes, and the events that lead up to them, divert management attention from constructive work, and therefore reduce productivity and therefore increase costs. Partnering seeks to overcome these problems through teamwork, the appropriate use of incentives and a range of "best practice" management techniques.

2.4.7 Traditional cost management

The limitations of the traditional approach to cost planning are now well known. If an estimator prices work and work items in isolation, and adds a subjective element for contingencies (perhaps ten per cent) then the estimate will be subjectively

rather than objectively based. If, then, the designer adds a further percentage to cover any design contingencies the result will be a high initial estimate, incorporating an unnecessary degree of financial uncertainty. This effectively means that the client has a higher amount of capital set aside for the project than is probably necessary.

This approach to costs traditionally adopted in the industry has been one of cost control rather than cost management. The manager has been enabled to observe current cost levels, to compare these with a standard plan and to attempt to initiate corrective action to keep costs within acceptable limits. The emphasis here has been on "containment". This is especially true in the public sector, where achieving a final account within an acceptable tolerance of the original budget is often the main management imperative. This gives the impression of accountability and value for money, but does it really deliver significant costs improvement?

The traditional method focuses on compliance with budget estimates rather than the pro-active management of values. The limitations are concerned with focus, pricing structure, transparency and incentive.

The Committee believes that the traditional approach has inherent limitations and that an alternative approach, referred to as strategic cost management can help achieve significant improvements in final out-turn costs. This way of managing costs in the private sector has led to cost reductions of 15 per cent to 30 per cent. (Deverill, N. (1996) "Change and Innovation in Government Procurement" *Innovations in Procurement Management* ed.A.Cox, Boston, UK: Earlsgate, quoted in Cox, A. and Townsend, M. (1998) op. cit.

Since the introduction of strategic target costing the car company, Rover, estimated that approximately 95 per cent of its projects will come in below the target cost. Prior to the introduction of the system, about 50% of capital projects exceeded their budget. (Cox, A. and Townsend, M. (1998) op cit.

2.4.8 A strategic approach to managing costs

The fundamental question to be asked is: "What *should* construction cost us?" Strategic cost management gives cost visibility through the use of the "open-book" approach and uses appropriate incentives. The fundamental rationale behind this is that cost structures are explained to the customer, and in return the customer must help the contractor to obtain cost savings.

Research by the Construction Industry Institute in the USA has found that, where a high degree of trust exists between parties in the construction process, cost benefits are more likely to result. (Construction Industry Institute (1993) *Cost – Trust Relationship* (Publication 24-1), Austin: CII, quoted in Cox, A. and Townsend, M. (1998).

There is a powerful argument in favour of applying strategic target costing in the context of partnering relationships. The attraction of a partnering approach is the use of the "open-book" procedure. This allows the client to understand the actual cost of construction, as well as providing an understanding of what is a suitable level for profits and overheads. It also allows the isolation of actual costs from the risk elements allowing an accurate minimum and maximum range of costs for a scheme. Effectively, the minimum costs will be those associated with the construction items only. The theoretical maximum will incorporate construction costs and the predicted additional expenditure incurred, should all risks have a maximum impact. The most realistic scenario is represented, however, by the construction costs plus a risk apportionment based on the calculated impact.

2.5 Strategic target costing and other Partnering techniques

Partnering techniques include -

- Risk management
- Organisational structure
- Communication
- Incentives
- Process engineering
- Problem resolution
- Cost issues
- Bench marking

2.5.1 Risk management

The problems arising from the inappropriate allocation of risk have been discussed above. Once risk is understood and the specific elements of risks become clear action can be taken to deal with it. A decision needs to be made on whether it is better

to insure against, rather than ignore the risk, and who is best placed to shoulder that risk.

Risks can arise from a great many sources in the construction process. There are four main sources: external factors; project complexities; incompetent project management; and unrealistic estimates. The last of these factors is particularly important when we consider the link between risk management and effective procurement.

Certain high profile construction projects have had a history of frequent and excessive overruns, due in part to poor contingency management. Traditionally, the process of risk management was carried out intuitively and was largely a matter of judgement, based on experience. As projects have become more complex the need for a more structured approach has grown. The States of Jersey has now adopted a more systematic approach to risk management which makes risks explicit and therefore, it is hoped, easier to manage.

2.5.2 Organisational structure: assembling the Team

This involves setting up a project focus group or "Team". The Team will usually include clients, consultants, main contractors, specialist/trade contractors and sub-contractors. The sooner the Team is assembled the greater the benefits are to the project and everyone involved.

A firm contemplating entering a partnering relationship should prepare its own personnel for the change. People with experience of successful partnering suggests that partnering differs from a simple legal partnership agreement in that partnering requires business culture adjustment by all partners to achieve common beliefs, values and norms, shares assumptions and similar expectations. Initiatives should come from top management who must have a commitment to the prospect of partnering. Education should include all personnel in the organisation and the intentions of top management should be established at an early stage. The commitment should be shared at all levels in the organisation. Workshops should be used and should involve all key players.

2.5.3 Communication

Effective communication should be established by an open approach, perhaps by the use of a joint office and filling system.

2.5.4 Contracts

Contracts are used to set out responsibilities and obligations. They are to be used constructively, not as an adversarial weapon. Sir Michael Latham recommended the New Engineering Contract (NEC) as fulfilling most of the needs of a modern contract and appropriate for use with partnering approaches.

2.5.5 Incentives

Incentives are used to motivate all team members to achieve project objectives. Incentives provide the mechanism for sharing risk and reward. The purpose of incentives is to align the motivations of the contractor with the client and vice versa and to stimulate improved performance.

2.5.6 Process Engineering

Performance can be improved by developing appropriate standards and procedures e.g. a single construction team, taking out man-for-man marking"; standardising design details and/or design process.

2.5.7 Problem resolution

Procedures are developed to resolve problems as soon as they arise and to utilize an escalation ladder in situations where a problem cannot be resolved directly by the individuals concerned in order that valuable construction time is not wasted.

2.5.8 Cost issues

Many of the cost issues can be addressed by managing costs through the use of Target Cost Contracts. Such an approach can be used with or without a fully developed partnering approach.

The use of such contracts encourages the search for cost savings through both the nature of the contract and value engineering. The further advantages of target cost contracts are that they are less adversarial, easier to administer, they force early decisions and produce greater certainty on the cost of the job. Target cost contracts after the setting of a realistic budget, deliver savings that are shared between the client and the contractor. Where the cost of a project goes beyond the target band,

both parties share losses but with the contractor bearing a greater proportion as the project goes beyond certain set targets and beyond the line of a guaranteed maximum price all losses are borne by the contractor.

Such a system provides greater cost certainty, a useful method of cost control with incentives and drives to motivate savings and delivery on or before time. It also promotes the adoption of a philosophy of "designing to a cost" rather than "costing to a design".

Recommendation 2: Private clients and the States should adopt a strategic approach to managing costs and use Target Cost Contracts wherever appropriate.

2.5.9 Benchmarking

This is a management technique to achieve continued process improvement. The purpose of benchmarking during the project is to indicate whether performance is heading in the right direction and on completion it provides feedback.

The historical lack of performance measurement in construction has much to do with the view that methods of construction are entirely the domain of the contractor and it is not up to the client to interfere in such matters. When any appraisal takes place it tends to be more concerned with whether or not the contractor should be considered for future projects. There is no real consideration of continuous improvement. In most cases the process is entirely retrospective and by then it may be too late to take any corrective action. The focus is on meeting accepted standards. This does not support an ethos of continued improvement.

Partnering has been an important driver in the development of performance measurement. Effectively, there has been a realisation of a need for an appropriate mechanism to ensure performance and to guard against complacency and "cosiness".

In the pursuit of continuous improvement, and in the reduction of costs, contractors must have clear, agreed targets with incentives for improved performance. Performance measurement should not just be applied at the highest levels but ideally should cascade down through the supply chain to include sub-contractors as the performance of the primary contractor clearly depends on the capabilities and achievement of the whole supply chain.

Some attempts to measure partnering performance have been criticised, particularly in the public sector, because of the intense personal investment made by public project managers and contractors during partnering sessions. In September 1996, the Texas Tech University undertook an objective quantitative analysis of partnered project performance. They compared over 400 projects of which half were under partnering agreements. Using thirteen separate project performance parameters, the research team concluded that, " partnering promises to furnish a means to control the two prime project performance indicators – cost growth and time growth." Details of that analysis can be found in Gransberg, D. Dillon, W., Reynolds, L., Boyd, J., "Quantitative Analysis of Partnered Project Performance", Journal of Construction, Engineering and Management, May/June 1999, which is available for viewing at the States Greffe.

2.6 Further issues arising out of traditional contracting methods

Selection by design competition

A review of three school projects undertaken by James R. Knowles during 1999 concluded that architectural competitions are not a particularly appropriate way of procuring a design that is appropriate for a building in which the functions are various and complex e.g. schools. Furthermore they said that use of such design competitions can lead to increased construction costs and can mitigate against the full and proper consultation necessary to ensure that a building is suitable for the purpose for which it is being designed. (James R. Knowles, *A Review of Three Schools*, 1999).

Recommendation 3: Design competitions to be used only when they can to be demonstrated as appropriate for the specific type of building required and providing value for money.

2.6.1 Tendering procedures

"There is hardly anything in this world that some men cannot sell a little cheaper and make a little worse. Those who consider price only are this man's lawful prey". [John Ruskin, *Sesame and Lillies* (1865)]

Value for money will not necessarily be secured by competition for the lowest bid price alone. This approach can often result in claims for additional fees, less trust between clients and consultant, less investment in training and development and overall higher out-turn costs, costs of operation and maintenance. The costs of the tendering procedures are also passed on to the customer.

The States have recently developed a more appropriate approach. Tendering procedures for the appointment of the main contractor are made in accordance with Code of Direction No 8. This includes some important changes such as the ability for Committees not to have to accept the lowest tender received so long as it has consent in writing from the Finance and Economics Committee. Furthermore, major civil engineering projects, costing more than £3 million, must now be approved by the States. The Committee was pleased to find evidence that tenders complying with the terms and conditions laid down in the tender documents were assessed with regard to both quality and price in order to identify the tender which offered the best value for money.

2.6.2. Length of tender lists

Tender lists of different lengths are used for different types of works, but are generally short with a maximum of approximately six. Six is probably too many as there are costs which will have to be absorbed by unsuccessful contractors and which, in any event, are passed on to customers in the long-term.

Recommendation 4: Tender lists for projects costing over £200,000 should be more selective and kept to a sensible length. Lists of approved contractors should be based on performance, continually monitored and updated in terms of achieving or failing to achieve benchmarks.

2.6.3 Comparison of tender prices and final price

In spite of some high profile projects that have gone way over budget and over time, the Committee received information about a range of projects which were analysed as to their compliance with tender prices. Of the 45 projects analysed by the Public Services Department 40 projects were less than or equal to the tendered value. Of the five projects that were more than the tendered value, the extra cost to the States was 0.17 per cent. While this may suggest that States' cost control procedures are not only adequate but very good, the Committee remained to be convinced that such "success" was not due to inflated original budgets and an automatic top-up allowance for inflation.

2.6.4 Fixed price tendering

The standard form of building contract in use in the Island allows Contractors to pass on increases in the costs of building materials charged to them by builders' merchants during the progress of the contract, it also allows them to claim for increases in the cost of labour. There are two ways in which the method of increased costs can be dealt with -

- The contractor pays his employees directly and can only claim monies from the client for the agreed measure of works completed – not by the number of employees who were required to complete those works.

- The actual method for the award of increased costs, payable per worker.

The actual method for calculating increased costs was used for the development of the Continental Site with the labour of fictitious workers being paid for by the contractor. The Committee was pleased to see that Treasury has recommended the greater use of fixed price (non-fluctuating) contracts in order to avoid the financial risks associated with inflation and reduce possibilities for the type of fraud perpetrated by employees against their companies and potentially against the States as happened during the Liberation Court contract.

2.6.5 Tender price levels

When comparing similar types of school buildings tender price levels in Jersey were found to be 53 per cent higher than the United Kingdom at the 4th Quarter of 1998. (James R. Knowles 1999). A comparison of Jersey with published data for 14 different schools lead James R. Knowles to conclude that, even after taking into account Jersey factors, the preliminary estimates contained a generous over-provision when compared with schools elsewhere and that there was scope for savings to be made.

Recommendation 5: The Capital Projects Review Sub-Committee conduct pre-contract reviews of projects where preliminary estimates are significantly higher than expected.

2.6.6. Public announcement of project budget

The Committee believes that the practise of announcing in the States Chamber the budget allocated for a specific project encourages all tenders to be submitted very close to the budget allocation, notwithstanding this initial budget may be overgenerous.

Recommendation 6: The budget for a specific project would not be announced in the States without jeopardising general openness and accountability.

2.6.7 Tender monitoring

On occasion, it has been suggested that a pattern might be discerned from the pattern of tendering for States projects and that the pattern was not entirely due to chance. To test this hypothesis the Committee requested the Chief Statistical Officer to analyse the tenders for both capital and civil engineering projects over the previous five years. In the event it was only possible to analyse a period of three years.

The analysis of the spreadsheet indicated that firms, other than the "Big Six" do win a proportion of the contracts, and while the tenders from runners-up are quite frequently remarkably similar, so sometimes are the winners and the nearest losers. The Committee concluded that there was **not** enough evidence to deduce that firms could be taking turns to submit the lowest tender, but that there could be some sharing of estimating information resulting in very similar tenders from several firms. This could be due in part to the fact that the capacity of the estimating departments on the Island has a limit and that, if overloaded by too many tenders being required at once, insufficient attention might be given to the pricing of tender documents. In these circumstances there is a tendency for contractors to be cautious, less competitive and, perhaps to share estimating information.

2.6.8 Changes in specification and project management

Many members of the Industry contended that there are too many changes introduced when a scheme is already underway. This, it is argued, stems from an inadequate brief from the client to the consultant and/or contractor, which subsequently requires detailed changes in specification as the client decides what is really required. Changes then have serious implications for both costs and programme.

In the case of small or occasional clients the implications of variations may not be sufficiently understood. In discussing the experiences of a client through the construction process, Blackmore (1990) highlights some key problems. He observes -

> "Little wonder that the lay client is often bemused by unrealistic expectations. Confusion is worse confounded by a failure to identify who is responsible for what, and how the different parties interact…. Clients become worried and over-sensitive mainly because they do not understand the design process (and no one troubles to explain it) and the part the client has to play in it. Ignorance, uncertainty, history and tradition can all sow seeds of doubt." (Blackmore, 1990, pp. 28, 31-32, quoted in Sharif, A. and Morledge, R. (1998) *The Insensitivity of the Procurement Process in the UK Construction Industry to the Problems of Occasional Buyers from the Industry - the Potential for the Chartered Surveyor as Principal Adviser,* Nottingham Trent University.)

The Committee noted that the lack of clarity around roles and responsibilities has also existed in the public sector, particularly where there was little or no previous experience of the project type. There are examples where the client has employed procurement methods and introduced variations without appreciating their effect on the construction process. The Inquiry into the Elisabeth Marina highlights the extent to which excess expenditure may be incurred by clients as a result of inappropriate or the misunderstanding of procurement practices.

Recommendation 7: The Construction Board of the Industries Committee to work with the Jersey Construction Forum to adopt a proactive approach to educating clients about their role in project management, perhaps through a series of client guides.

In addition, the Committee of Inquiry into the Elisabeth Marina made a number of recommendations in respect of P.70 Groups with which we would concur. They are as follows -

Recommendation 8: Formal induction process for P70 Groups, detailing individual responsibilities and accountabilities.

Recommendation 9: P70 Groups concerned with major capital

projects should be chaired by a project manager with proven professional experience.

2.6.9 Initial conclusions about traditional contracting

All is not doom and gloom, there are a significant number of projects that have been wholly successful, and many that have been partially successful. Nonetheless there are clear disadvantages to some of the procedures and processes currently employed in the construction industry.

There is a degree of client dissatisfaction, particularly about costs, and the industry has had a poor public image, exacerbated after reports in the media about "accepted practice in the industry" in a recent fraud case.

The Committee has been concerned not only to identify areas of higher cost but also to investigate ways to alleviate or prevent high building costs in the future. Throughout the Committee has tried to find solutions benefiting both clients and the industry, with no wish to exploit short-term leverage to the detriment of the long-term sustainability of the local industry. To this end the concept of "Partnering" has been explored in depth. Through a series of workshops and interviews with both the public sector and the supply side it became apparent to the Committee that despite the inherent problems associated with the Island environment there are a range of opportunities for improving performance to the benefit of all concerned. The consolidated Report of these workshops is contained in Appendix 3. Much effort will be required to improve client satisfaction and the image of the industry. Best practice will need to be adopted and tangible results demonstrated.

It may be that at first we cannot aspire to best practice, only better practice. Perhaps the notion of best practice is in itself too absolutist? It might also be argued that if there was a best practice in the effective management and delivery of construction projects then it would have been discovered a long time ago, and it would have been successfully copied and replicated since then. As technological and competitive circumstances do not remain the same in any locality and there are differences between localities, any discussion of best practice has to be framed within the notion of appropriateness.

2.7 When should Partnering be used?

Although partnering may not be appropriate for all situations, the Construction Industry Board believes that the approach succeeds best for the procurement of high value/high risk construction situations and where the job is considered attractive to the contractor. Also the Board notes that collaborative approaches work best where there is a relationship based on regular spending.

The key to success is not knowing what could be done, but knowing when it should be done. The Latham Report shows how a more collaborative approach can lead to performance improvement, but we need the experts in our own particular locality to tell us when it is appropriate for this approach to be used and when it is not.

Trust must be restored. The Committee contends that the partnering approach, more than any other, is most likely to deliver this by providing "win-win" solutions for everyone involved with the construction process.

For this to be successful, the extent to which a real change in thinking is necessary, should not be underestimated. It may be difficult for both clients and the industry to move from a situation where they have tended to avoid responsibility, coerced into abiding by a strict contract, applied in an arms-length manner. Some may continue to feel that collaboration is not only impossible to achieve but an inappropriate way of doing business. Instead, people must be encouraged to be open and trusting, wanting to do things which are valued and positively wishing to work in a collaborative "win-win" environment.

2.7.1 Partnering Workshops

In order to assess the extent to which the local construction industry would be receptive to the concept of partnering at the current time, the Committee held a series of workshops with the assistance of partnering experts from the firm of James R. Knowles. An internal workshop with the public sector was held on the 21st and 22nd of July 1999. Interviews with randomly selected representatives from the supply chain were conducted on the 23rd and 24th August 1999. A further interim feedback workshop was held with the public sector on the 10th September 1999. Most recently, a workshop took place with the supply side on the 11th February 2000. Full details of these workshops can be obtained from the background file to this Report held at the States Greffe.

2.7.1.1 *Internal Workshop with the Public Sector*

Extensive discussion between the delegates concluded that -

- There is real potential to make cost savings.
- There are opportunities to work more co-operatively with contractors.
- Even if cost savings cannot be achieved some of the other benefits to be gained by adopting partnering and best practice techniques are worthwhile, for example -
    - ♦ co-operation rather than adversarialism will reduce administration costs;
    - ♦ if partnering could bring back enjoyment to the industry, people would get more job satisfaction and might attract people back to the industry.

2.7.1.2 *Interviews with the supply chain*

Interviews were conducted with five contractors, one developer and three consultants who were randomly selected. The Committee is grateful to them for their time and their input into the process. All respondents were receptive to and enthusiastic about prospective change, but commented that the States would also have to make changes if the industry is to move forwards. They were enthusiastic about co-operative workings, partnering and incentives (if designed carefully). While they felt that certain physical and political constraints could not be changed, they felt that there are significant opportunities for improvement in the following areas -

(a) Political

- Relaxation of regulations.
- Improve the planning permission process.
- Promote/provide training.
- Co-ordinate industry capacity.

(b) Culture

- Partnering/culture change/knowledge transfer.
- Health and safety.
- Information technology.
- Incentive/bonus scheme.

(c) Procurement

- Alternative procurement - earlier involvement of consultants and contractors.
- Two-stage tendering.
- Selection on price/quality matrix.

(d) Building quality design

- The brief.
- More liaison with end users.
- Reduce specifications where appropriate.
- Alternative specifications.
- Consideration of future operating costs.

(e) Labour

- Attract/train more highly skilled labour, managers and professionals.
- Focus on trades with problems.
- Consider appropriate incentives.

(f) Materials

- Consider the use of mainland suppliers for materials which are persistently exceptionally expensive, have late delivery and are of poor quality.

(g) Post contract management of projects

-

- More flexibility/co-operation.
- Better communication.
- Performance measurement (benchmarking).

2.7.1.3 *Workshop with the supply side*

Representatives from contractors, sub-contractors and consultants were invited to attend a one-day workshop designed to explore any barriers to improvement in the construction process and any potential best practice techniques which may be implemented to overcome such barriers. It was recognised that neither the supply side nor the States of Jersey could make real progress towards achieving their objectives without the commitment and involvement of both sides of the industry. The feedback was extremely positive with a widely expressed commitment to change. The workshop provided further confirmation that change was needed in the industry and the supply side would work with the States to achieve improved performance, as it must provide advantages for all concerned in the process.

2.7.1.4 *Outcomes from the Diagnostic Process*

A number of key objectives for the States of Jersey and for the supply side developed from the workshops and were tested to establish whether the different objectives could be reconciled through a new approach such as partnering.

(a) The key objectives for the States of Jersey, as initially developed in the workshops, appeared to be -

- To produce good quality buildings at reasonable cost (value for money).
- To reduce construction costs.
- To achieve cost and programme certainty.
- Transparency/open book approach.
- To be pro-active, rather than reactive.
- To reduce conflict and adversarialism.

- The key objectives for the supply side appear to be -

  - Clarity from the client in terms of the brief.
  - Well-managed and efficient processes including risk management, procurement strategies, etc.
  - More efficient and flexible planning and regularity control mechanisms.
  - Improved public relations for the industry.
  - Better communication.
  - Reduced fluctuations in workloads.

All those involved in this process were enthusiastic about prospective change and were responsive to the concepts of co-operative working, partnering and carefully designed incentives. It was felt that partnering and best practice techniques seemed to be the only viable means with the potential to move forwards towards improved performance.

In the private sector the Committee was told of some organisations exploring new ways of managing the procurement of their construction needs. It is not surprising that the best examples are normally to be found in those sectors of activity where the need for change is most urgent. When existing practices are no longer delivering objectives - change is most likely to come about. This gives credence to the old phrase that “necessity is the mother of invention”.

Unfortunately, there does not yet appear to be much evidence of this new strategic way of thinking in the public sector. This is not surprising when one recognises that the drivers for change are usually less immediate in the public sector. As a result existing approaches tend to be based on more traditional ways of thinking.

At a time when all the States Committees are coming under increasing pressure to hold back projects (i.e. to reduce public spending, if only in the short-term) there is considerable scope for improvement in the current way in which public sector construction spending is managed. With relatively recent changes in the political culture including greater involvement of the

private sector, outsourcing, and a greater focus on core activities, the States is becoming increasingly a "buyer" rather than a direct "provider". With such initiatives the States must become increasingly competent at procurement and the management of projects. It is essential for the States to become an "intelligent client".

That is not to say that all that is done by construction clients in the public sector is therefore inappropriate. There are clearly construction professionals in the public sector, just as there are in the private sector, who have arrived at operationally appropriate ways of doing things. There are even some States Committees and departments that have quietly made progress in developing new relationships with the industry. More needs to be done.

Recommendation 10: States Departments should raise the profile of the States as a leading client by using the best suppliers of goods and services; establishing tender procedures with the aim of procuring those who offer the best service; advocating team-working rather than adversarial relationships; pursuing dialogue with the industry to reduce the potential for conflict within projects; discouraging the "claims culture"; using modern and unambiguous contracts; stating how variations are to be dealt with; and seeking quicker settlement of contractual issues.

ecommendation 11: The States to consider the development of tructured methodologies to involve end users more actively in the onstruction procurement process e.g. through a system of post-ccupancy evaluation of all new facilities.

Having established through the diagnosis carried out to date that there is a high level of commitment from all sectors of the industry to change current working practices it remains a challenge to design and implement an appropriate strategy for change. To this end the Committee requested James R. Knowles, partnering experts, to outline proposals for developing an agreed set of objectives and practical ideas for the changes necessary to improve performance along partnering/best practice lines.

In summary, James R. Knowles recommend a phased approach to include the setting up of demonstration projects, the development of key performance indicators, an independent steering group to monitor and evaluate the demonstration projects, and the promotion of the new engineering contract (or similar) to fulfil the requirements of the partnering process.

Recommendation 12: The Construction Board of the Industries Committee to take forward the concept of partnering using a phased approach as discussed in the Report and outlined in Appendix 3.

2.8 A word of caution

Cox and Townsend (1998) draw attention to the need to understand the influence of power in relationships. They contend that most trading relationships, whether they incorporate partnering approaches or not, are driven by the relative power of the parties involved. (Cox, A. and Townsend, M. (1998) *Strategic Procurement in Construction*.) It is a case of understanding how the relationships stand and how they can be managed to deliver the intended benefits.

This has proved to be a timely reminder to the Committee. Clearly, procurement competence requires us to be aware that collaboration based on trust can be abused. We must remain sensitive to the fact that suppliers have their own agendas, which sometimes may not be the same as that of those to whom they provide their product and services. Furthermore, there needs to be an awareness at all times that construction as an industry is constituted by a wide variety of supply chains delivering many very different products and services. The Committee noted a growing trend towards the vertical integration of main contracting and sub-contracting elements within the industry while ostensibly the different branches within the supply chain appeared to be independent. Such a set up could result in a lack of transparency even when using the "open-book" approach. Any such abuse should be dealt with appropriately severely as some abuses of trust could constitute fraud. Even where the abuse of trust stops short of fraud, the contractor should be removed from future consideration as a partner in the partnering process. The structures of power within each of these supply chains varies considerably and changes over time (although there remains some strong continuity e.g. cement products).

Recommendation 13: Clients treat the abuse of trust appropriately severely e.g. by removing offenders from future

tender lists, finding alternative suppliers etc.

2.9 Cost comparisons

It is generally accepted that the cost of construction in the Island is higher than on the mainland. This is inevitable if only because of the cost of transportation. It was contended, however, that the cost of construction in Jersey is higher than it should be. The building costs information service (BCIS), in their publication of the Capital Quarterly Review of Building Prices (December 1999), estimated the Channel Islands as being more expensive than London and Southern England by the following percentages -

south-east of England (excluding Greater London)	CI: +36%
Greater London	CI: +21%
south-west of England	CI: +49%

Source: Simon Kolsar E.C. Harris/Colin Smith & Partners

Although there are differences in construction costs between Jersey and Guernsey, Jersey is usually perceived as being more expensive, the general point is made that when compared with the Southern England (excluding Greater London) the cost of construction in Jersey is likely to be some 20 per cent to 40 per cent higher.

2.9.1. The Committee wished to subject these general statistics to critical analysis. The firm of E.C. Harris was commissioned to undertake a statistical analysis to compare building costs in Jersey with the South of England. Its brief was to look at costs incurred directly in connection with building work so as to compare like with like. The construction costs of two building types, houses and offices, were compared. E.C. Harris concluded that the majority of building elements in Jersey are between 20 per cent and 60 per cent higher than the South of England equivalent When these differences are applied to a typical house or office development, however, the result is an overall difference of between 18 per cent and 31 per cent. Somewhat surprisingly, the element of the cost which includes builders' tenders and preliminaries was found to be cheaper in Jersey.

2.9.2 The following elements used in the construction of housing were identified as being particularly significant -

Wall finishes	+57%
Stairs	+60%
Electrical installations	+71%
External services	+154%

The following elements were identified as being significant in the construction of offices -

Ceiling finishes	+60%
Mechanical and electrical installations	+61%
Frame	+75%

Source: E.C. Harris: Benchmarking Building Costs Stage Two Report

2.9.3 Stage Two of the analysis considered trade sections which contribute a significant proportion of the overall construction costs. While excavation and disposal proved to be considerably less expensive in Jersey (possibly due to no land fill tax, cheaper fuel, cheaper insurance, and less time travelling between jobs), many other trade sections exhibited significantly higher costs for example -

- Interlocking brick/block roads/paving +185%
- Pre cast concrete (sills, lintels, copings, features) +106%
- Slab/brick/block/set/cobbled pavings +95%
- Stone/concrete/bricks/curbs/edgings/channels +81%
- In-situ concrete +76%
- Suspended ceilings +77%
- Timber stairs/walkways/balustrades +73%

- Raised access floors +69%
- Plasterboard dry lining + 67%
- Painting/clear finishing +52%
- Rubber/plastic/cork/lino/carpet tiling/sheeting +40%

Source: E.C. Harris: Benchmarking Building Costs Stage Two Report

Some of these results can be explained by what we know already for example, the high cost of concrete locally; the cost of importing high weight low-value products; the high cost of labour for very labour intensive trades. Moreover, some of the biggest percentage differences are the result of materials being imported through local agents where there is no other competition. Nonetheless, there were some areas where costs are high for no apparent reason. A full account of the analysis undertaken by E.C. Harris/Colin S. Smith and Partners can be found at Appendix 4.

Recommendation 14 Further research should be undertaken to investigate why the following costs are so high in Jersey compared with the South East of England -

- **concrete, including the use and charging for pumps, precast concrete (sills, lintels, copings, features);**
- **suspended ceilings;**
- **raised access floors;**
- **rubber/plastic/cork/lino/carpet/tiling/sheeting;**
- **mechanical and electrical installations.**

Traditionally it has been argued by each trade section that the high cost of construction in the Island is not attributable to them as they comprise only a small percentage of the total cost. The point is, however, that these factors in isolation may appear to have only a minor impact on the overall costs of building, but the cumulative effect of a large number of increases is significant.

3.0 Evidence received and analysis

An advertisement was placed in the Jersey Evening Post in February 1999 inviting written submissions to either support or dispute the fact that the cost of construction was higher than that on the mainland. Having received approximately 42 written responses from organisations and further letters from individuals during the initial response period the Committee continued to receive letters and written reports from interested individuals and organisations throughout the time of its existence. The Committee considered each submission in detail and requested further information where required. A massive amount of primary source material was collated. Nevertheless, the same issues kept surfacing. For example -

- high cost of labour;
- Regulation and Undertakings Law;
- lack of appropriately trained labour;
- poor management skills in construction;
- low productivity;
- harbour dues and transport costs;
- stevedoring costs;
- price and quality of local materials;
- requirements of building controls and planning by-laws;
- over-specification of projects;
- insufficient work at the planning stage;
- connection charges levied by service companies;
- business overheads due to isolation of Jersey;
- the five per cent Rule;
- problems of different forms of procurement processes;
- peaks and troughs in the business cycle;
- size and timing of the public sector capital programme;
- lack of economies of scale;
- cost of renting commercial property;
- Jersey road regulations;
- macro-economic conditions;

- planning application fees;
- excessive profits earned by contractors;
- lack of competition;
- professional fees.

The Committee considered that there had been few surprises in the factors identified as contributing to higher building costs in Jersey. Many of the issues had been raised in previous reports presented to the States. The Committee, however, considered that it needed to analyse what constituted fact and what was purely "received wisdom". Assertions should not be accepted purely because they are repeated often enough. To this end, the Committee enlisted the help of an expert Advisor, from the firm of E.C. Harris.

The Committee, with the help of Mr. Simon Kolesar, focused on the analysis of 22 different variables that were thought to be most germane from an analysis of the written responses.

From these written responses a list of potential interviewees was drawn up. In total 20 representative organisations or companies were interviewed.

In total 22 items were raised during the interviews. In some cases these had already been given in writing as initial submissions and in some they were articulated during the interviews.

The outputs from both the written and oral submissions were analysed on a spreadsheet and taking each of the most salient issues the Committee would comment as follows:

3.1 High cost of labour and shortage of skills

There was an almost unanimous view from those interviewed that the cost of labour in the Island was higher than it should be and that it was considerably higher than that on the mainland.

Local wage rates are about 12 per cent higher than the mean on the United Kingdom mainland and indeed lower than those recorded in London. [RICS Building Cost Information Service (BCIS)] The differential is not unfavourable when considering the costs attached to living in Jersey and the physical and political factors limiting the size of the labour force. There is a tendency, however, for the various Federations to give annual wage increases in excess of States inflation targets. In addition, sub-contract labour, which is in limited supply, sells itself to the highest bidder at times of high activity, pushing labour charges substantially higher than in the United Kingdom.

The Regulation of Undertakings and Development Law appears to have had less impact on the construction industry compared with other industries in that licences for labour can be obtained on a project-by-project basis. Difficulties arise because individuals cannot be attracted to the industry to fulfil the vacancies that exist. There is competition from the financial sector for administrative staff that has the effect of pushing up the level of salary required to attract and keep such staff. The poor image of construction in terms of it being hard physical work, with little employment protection and a poor health and safety record compared with other occupations also damages the industry's ability to attract staff to fill vacancies that exist.

Serious manpower and skills shortages have been identified in the following trades: painters and decorators, electricians and plumbers. 31 per cent of hard-to-fill vacancies are in the construction industry and 91 per cent of theses are of skilled craft workers. (TEP: *Construction Skills Audit and Training Needs Analysis*, Education Training & The Labour Market Research Group Westminster Business School, London, 2000, Unpublished.)

Skills shortages contribute to lower productivity and higher building costs in the Island and this matter must be addressed if the industry is to be able to meet improved productivity targets seen as essential to reducing building costs.

3.1.2 *Lack of appropriately trained labour and poor management skills*

Research undertaken by the Training and Employment Partnership (TEP) demonstrates that productivity and the average level of skills in the construction industry are not as high as on the mainland.

The current construction workforce in Jersey is composed of unskilled, skilled and craft, plant and machine operators, managers, professionals and technicians. The proportion of unskilled labour (17 per cent of operatives) is relatively high and appears to be increasing. In Europe, where some of the most advanced construction industries can be found, the trend has been to produce a highly trained construction workforce, able to plan, co-ordinate, in need of little supervision and multi-skilled. (Education Training & The Labour Market Research Group Westminster Business School.)

In Jersey there are low barriers to entry in general contracting: a construction firm can be established with no qualifications or experience. Although, it is generally accepted, that market forces would eventually remove incompetent firms, this may take some time in a very buoyant market situation. Low barriers to entry is not only a problem for consumers but is also damaging to the quality and reputation of the construction industry as a whole. Particular concerns were expressed by members of the local electrical engineers' trade association that as the Jersey Electricity Company no longer automatically carried out post-installation checks, there is a need to ensure that local tradesmen are sufficiently capable of carrying out their own checks to an appropriate standard.

Recommendation 15: The Construction Board of the Industries Committee to work with the relevant trade associations to review the levels of qualification and experience required to operate as a contractor or subcontractor in certain trades.

Parts of the industry suffer from a shortage of supply of key technical skills. This has the potential to result in poor quality installations and risks to health and safety. The need to compensate for a lack of technical skills may account for the relatively high management levels (24 per cent) to be found in construction in Jersey. (Education Training & The Labour Market Research Group Westminster Business School ibid.)

Elsewhere in Europe traditional skills such as cutting, joining and adapting materials on site are giving way to an emphasis on alignment, measurement, planning, calculation skills, reading drawings, using computers, knowledge about other trades and health and safety. (Education Training & The Labour Market Research Group Westminster Business School ibid.)

In the United Kingdom and elsewhere the increased use of standardisation, prefabrication and modularisation techniques have brought about productivity improvements, with resultant cost savings in the order of 30 per cent to 60 per cent. (Briscoe G. (1988) *The Economics of the Construction Industry*, London.). There are too few with experience of prefabrication and the lack of such skills will be a limiting factor in any significant extension of prefabrication such as bathroom pods etc.

The Committee received expressions of concern that NVQs in the industry are not yet fully developed or satisfactory, and arrangements for output-related funding are undermining the system. The Jersey Apprentice Scheme catered for only 82 potential apprentices over three years and just four were likely to achieve NVQ Level 3.

Unskilled, immigrant and temporary labour, creates a disincentive to investment in training and skilled labour. The Committee acknowledges that the provision of training is difficult given the structural characteristics of the industry, with many small firms, a high degree of self-employment, volatile markets creating short-term attitudes, cut-throat competition for skilled labour and fragmented industry interest groups. The Committee is concerned that the current thrust of training initiatives which rely heavily on the goodwill of employers will not deliver the innovations, improvements in skill levels and productivity gains necessary to take the industry forward into the 21st Century.

The organisational structure of training and education is insufficiently co-ordinated relying on individual employers, Highlands College, and United Kingdom universities. Lack of an integrated structure can lead to inefficient use of resources and gaps in training provision.

There is a shortage of management skills in the industry. The survey of employers undertaken by TEP identified the construction sector as having the lowest rate of planning. For example, few had a written business plan or training budget. While many factors contribute to low productivity, some firms are able to achieve a greater output per person than others. Management skills must be improved throughout the Construction process. Good management at a senior level will lead a firm to organise its structure and systems in the achievement of higher productivity. At site level, good management will ensure that materials are promptly delivered to site, that sub-contractors are scheduled properly, their performance is closely monitored, labour is suitably motivated etc.

There is a lack of trainees entering the industry and the construction workforce is ageing. At the time of the last census in 1996 45 per cent of those working in construction trades are over forty years old. The national average is 41 per cent. Furthermore, a decline in the number of working age males is predicted along with a reduction in the numbers of school leavers. Construction has the highest percentage of employers employing school leavers in Jersey. Not only is there a need for adequate training schemes, there is also a need for alternative sources of labour.

While it may be possible to import necessary skills there are difficulties in recruiting from outside the island, particularly the unavailability of suitable and affordable accommodation. The importing of skills may increase construction costs because of this factor.

Women are seriously under represented in the industry, only four per cent in construction and 1.8 per cent in craft-related

occupations. There is no obvious reason why this should be so at a professional consultant level. Moreover, in Denmark women make up 27 per cent of painters and 40 per cent of trainee painters. (Education Training & The Labour Market Research Group Westminster Business School) Effectively ignoring half of the population is unlikely to result in the industry recruiting the best people that may be available to it.

3.1.2.1 Training levy

The Committee received input from the Jersey Construction Forum in respect of their proposals for the introduction of a training levy whereby all contractors operating in the Island would be the subject of a training levy. The Committee thought the concept to have potential and felt that it its feasibility should be further investigated.

Recommendation 16: TEP in consultation with the Industry to develop a comprehensive programme to meet all the immediate and longer-term training needs of the construction industry as discussed in the Report, and to review the co-ordination of all training and education in Construction. TEP should also consider the merits of introducing a training levy with the money raised being hypothecated for training purposes.

3.2 Shipping and stevedoring costs

It is estimated that transportation costs add approximately 10% to the cost of materials imported into the Island. The cost of importing materials has been highlighted by the "Jersey Mineral Survey" which notes (Section 5.8.2.) that the total port-related costs are nearly four times those in Guernsey and almost ten times those in London.

It is inevitable that as an Island we will incur a premium for the transportation of goods. The main ways in which a shipping company can reduce its charges are -

- To get a better rate of return for the capital employed.

This is not possible due to the level of imports required by the Island and the lack of exports from the Island.

- To reduce operating costs.

This could be achieved by reducing the frequency of incoming ships but would impact negativity upon the flexibility available to Islanders.

The Committee concluded that the lack of true competition between the shipping lines is due to the comparatively low level of business which is unlikely to attract another firm into this area of operation.

3.2.1 Stevedoring costs

These costs are higher than in other jurisdictions but the Committee concluded that the high level of criticism aimed at stevedoring costs are due more to historic emotions than to the current facts. Higher costs can be explained by the following factors -

- Difficulties in using labour efficiently.
- Unlike most other ports, the crane drivers in Jersey are employed by the stevedoring companies and not by Jersey Harbours.

The Committee noted a certain overlap in the membership of the Board of the Stevedoring Company and that of the Shipping Company. The Committee is not suggesting that there is any formal vertical integration, rather that where stevedoring rates are set independently they should be seen to have been so.

Recommendation 17: Further research should be undertaken to evaluate the extent to which the level of higher costs for stevedoring in Jersey is justified.

Harbour dues

The view that harbour dues are excessive and are levied in an inequitable manner was widely expressed. While the Committee accepted that over the past ten years the harbour dues had gone up by less than the rest of inflation in the Island, the base price to which the percentage uplift was applied was higher than it should be and resulted in a proportionately higher actual cost. At present, harbour dues cover the cost of maintenance of infrastructure, minor harbours around the Island, repayment of the Marina debt, and sea rescue.

3.2.1 The structure of Harbour Dues

The structure of harbour dues is complicated and therefore comparison between jurisdictions is often difficult as different parameters apply. Thus, when comparing Jersey, Guernsey, Poole, Portsmouth, and the Island of Man, Jersey would not always be the most expensive depending on the variables and assumptions employed in any theoretical scenario. Nonetheless, it did appear from the evidence received that Jersey was consistently more expensive than Guernsey.

Recommendation 18: The States and the Harbours and Airport Committee should conduct a review with the aim of ensuring that harbour users only bear directly related costs and that the harbours should not be used as a source of revenue.

Recommendation 19: The Finance and Economics Committee to agree that internal loans should be at competitive rates.

3.3 Cement and cementitious-based products

For five tonnes of ordinary Portland cement delivered to site within 15 miles the Jersey cost is 19.05 per cent more than the south-east of England.

Jersey	£100 per tonne
Southampton	£ 84 per tonne

Source: Colin S. Smith & Partners/E.C. Harris 28/1/00

50 kg Blue Circle cement was found to be 17.15 per cent more expensive in Jersey than in the Isle of Man. At March 2000 concrete prices in Jersey were £90.89 per tonne compared with the south-east of England where it cost £52.14 per tonne. (Source: Colin S Smith & Partners/E.C. Harris)

When compared with the Isle of Man, Jersey is over ten per cent more expensive for concrete ready mix C15 and 32 per cent more expensive for C40.

At March 2000 concrete blocks were found to cost £10.02 per metre in Jersey compared with £6.59 per metre in south-east England. (Source: Colin S Smith & Partners/E.C. Harris)

Four-inch blocks and six-inch blocks are 48 per cent and 41 per cent respectively, more expensive in Jersey than in the Isle of Man.

There is no doubt that the cost of cementitious products is higher in Jersey than on the mainland and in the Isle of Man.

3.3.1 *The Jersey Mineral Study*

The Jersey Mineral Study noted that the local sand was not suitable for direct use in concrete and pavement construction. The two producers of concrete either import sand or blend the local sand with crushed rocks. In the short term the Committee recommends the continued use of secondary aggregate production from recycled demolition and construction waste to offset the high prices of primary aggregate products. For the longer term the Committee supports a strategic approach as set out in the Jersey Mineral Study in 6.3.5. The strategy has the potential to deliver significant benefits to the Construction Industry.

The long-term strategy involves the following -

- replace Simon Sand works by sand imports;
- obtain a source of aggregates in addition to Ronez for medium term supply security;
- seek an economic way of developing a second port to facilitate imports in the long term.

Source: Jersey Mineral Study, States of Jersey Planning and Environment Committee, March 1999.

Recommendation 20: The Planning and Environment Committee should adopt Option 5, "Sand imports only/long-term port development" as set out in Section 6.3.5. in the Jersey Mineral Study.

If the winding-down of Simon Sand is to be achieved over a fifteen-year period while arranging the import of sand through St. Helier the Committee would agree with the conclusion of the Jersey Mineral Study that it will be necessary to ensure that the import business is not entirely under the control of an existing, on-Island supplier.

The Committee remains concerned that for the present the supplies and prices of primary materials such as cement, sand and aggregates are controlled by one or two suppliers.

Recommendation 21: The Industries Committee to develop a policy of greater competitiveness within the construction industry and to investigate and evaluate the appropriateness of anti-competitiveness legislation for Jersey.

3.3.2 *Efficiency of use of plant and equipment*

A proportion of higher costs can be explained by an inability to run fixed plant at capacity. Concrete pumps are often under-utilised while the cost of such capital items has to be recovered. There appears to be an over reliance on the use of pumps to place concrete in the Island, compared with other jurisdictions.

3.3.3 *Transport Regulations*

The Committee heard that local transport regulations contribute to higher costs. The Committee concluded that the cost of Vehicle Exemption Licences does not contribute significantly to overall costs. High costs, however, can be attributed to the modification of delivery trucks (e.g. ready mixed concrete lorries) to comply with States Regulations. The Motor Vehicle (Construction and Use) (Jersey) Order 1998 governs the dimensions of road vehicles. It is accepted that there are many roads in the Island that are inaccessible to the larger sized vehicles common in the United Kingdom. Nevertheless the Committee believes that transport regulations could be relaxed on certain prescribed routes in the Island to avoid so many freight and construction vehicles having to be modified.

The Committee considered that allowing larger standard lorries to deliver materials direct to Builders' Merchants in the Island would eliminate the need for double handling and the risk and cost of damage to goods.

Recommendation 22: The Home Affairs Committee to consider the feasibility of relaxing transport regulations on prescribed routes.

3.4 The five per cent Rule for mainland contractors

The "Rule" by which mainland contractors must achieve tenders five per cent or lower than the lowest tender entered by a local contractor to be considered for contracts in the Island was originally a ten per cent differential. The origins of the "ten per cent rule" are to be found in a report of the Policy and Resources Committee on population growth (P.145/89). That report stated that "the granting of licences for private building work under Part III of the Regulation of Undertakings and Development Law should be further limited, as should the size of the States building programme other than in respect of "Category A" housing. The objective should be to reduce the number engaged in the construction industry over the next three years by some 500, or approximately ten per cent of the number engaged in the industry at the time of the 1989 Census".

There was pressure for support from the local building industry. Concern was expressed that the Island was facing aggressive competition from non-local contractors and sub-contractors and potential tax receipts were being lost to the mainland. This led to the introduction of the Rule.

Although the Working Party on the Cost of Building Materials, chaired by ex-Senator Chinn recommended the abolition of the ten per cent rule to increase competitive pressures, the States decided to reduce it to a five per cent differential for non-local contractors.

The Committee noted that a number of "local" contractors are now part of mainland contracting groups and that the incentive for competition from mainland contractors with the five per cent Rule in place is not high enough to attract further mainland contractors to the Island.

Recommendation 23: The 5 per cent Rule for mainland contractors should be abolished.

3.4.1 *Higher specification than on the mainland*

The Committee concluded that there is evidence that specification standards, particularly on States projects, are unnecessarily higher in the Island than on the mainland.

Recommendation 24: Clients in both the public and private sector should conduct a cost-benefit analysis on major projects to determine the extent to which a higher initial capital cost due to higher specification relates to long-term costs. Further research into specification standards is required.

The Committee also received evidence of architects specifying more expensive components when less expensive and satisfactory alternatives were available. This not only limits the possibilities of economies of scale in ordering by Builders Merchants but also directly increases building costs.

3.4.2 *Builders' merchants*

There is no doubt that a range of products are more expensive in Jersey than in other parts of the United Kingdom as evidenced by the regular Mean Input Prices Index prepared by Colin S. Smith & Partners/E.C. Harris in the magazine "Cornerstone". Below appears a sample of that information comparing Jersey prices with those of the south-east of England and London.

Mean input prices – March 2000

Region	Concrete £/cubic metre	Steel Reinforce-ment £/Tonne	Structure Steel £/Tonne	Commons £/1000	Blocks £/square metre	Timber £/metre
London	50.87	250.25	937.31	151.44	6.19	2.33
south-east	52.04	252.19	1001.43	142.22	6.59	2.11
Jersey	90.89	324.20	1260.00	291.42	10.02	3.13

Source: Colin S. Smith & Partners/E.C. Harris

The following comparisons with the Isle of Man show how much more expensive certain products can be in Jersey -

Timber, rough sawn untreated £/m3	+17%
Sand, building	+100%
Sand, plastering	+88%
Plastering-gypsum -	
12.5mm	+41%
9.5mm	+58%
Multi-finish	+17%
Tarmac, base and wearing course	+45%

Clearly building materials are more expensive in Jersey when compared with the United Kingdom and the Isle of Man. The Committee concluded, however, that the differences are largely accounted for by higher transport charges, harbour dues, higher wages and the absence of economies of scale.

It was established that commercial pressures were being applied to builders' merchants in the Island and that their prices were often competitive with those obtainable from the mainland. While this is the case for the larger contractors, the Committee remains concerned that the smaller client cannot obtain such advantageous discounts and may suffer higher prices through the merchants' attempts to compensate for having profits squeezed by larger contractors.

While the Committee received evidence of a range of discount structures available to local contractors, it was impossible to determine the extent to which such discounts are passed on to the end client.

Section 3.12 of the E.C. Harris Report at Appendix 5 discusses the ways in which both main contractors and sub-contractors in the Island are not as efficient as their mainland counterparts in their forward planning which in turn, has an impact upon the cost of materials available through local merchants.

3.4.3 *Cost of renting commercial property*

Commercial property in the Island is at a premium and therefore has a direct impact on the cost of construction. Sectors of the construction industry that require a considerable amount of storage space, for example builders' merchants are particularly affected. In addition, builders merchants which own their own property may consider that there is more to be gained from renting out their property to other more lucrative uses. A reduction in the availability of stock items locally would have a detrimental effect upon the service offered to the local construction industry in terms of convenience.

3.4.4 *Bulk purchasing*

In view of the higher costs of materials supplied locally the Committee was of the view that there was something to be gained by bulk purchasing. The Committee felt that the size of the proposed States capital programme offered opportunities for bulk purchasing of doors, window frames etc.

3.4.5 *Standardisation*

The Committee considered that greater standardisation would lower costs. Other Industries, such as manufacturing, have used standardisation as a way of improving productivity and quality on projects. It has been argued that such an approach applied to construction could improve build ability.

In the United Kingdom, the Construction Industry Board (Working Group 11) in its review of productivity improvements, recommended the greater application of standardised components, systems and processes in construction. The common argument is, however, that construction is different and that there is a need for bespoke design, particularly in an Island. In

addressing this issue the Committee considered some important questions -

- To what extent should processes be different?
- To what extent is customisation really necessary?
- Does standardisation really have to result in poor aesthetic design?

Greater levels of standardisation may not be appropriate for everybody but the possibilities should at least be explored. As a number of housing projects to be built by the States and Housing Trusts are to be developed over the next few years, the potential for the use of standard components, for example doors and windows, should be considered.

Recommendation 25: Consideration should be given to the feasibility of central bulk purchasing for example for the housing and education programmes and the use of standard components in future building projects.

3.4.6 *Alternative sources for the supply of materials*

The Committee received evidence that some Contractors are sourcing labour from France and that both contractors and builders' merchants are sourcing their materials from countries other than England.

3.4.7 Professional Fees

In the Review of three education projects undertaken by James R. Knowles concern was expressed at the level of professional fees compared with the United Kingdom. The Committee believes that prevailing market conditions have led to the level of professional fees being less competitive than on the mainland.

Recommendation 26: The States to adopt a policy of lump sum professional fees without unduly compromising standards and quality in the design process.

3.4.8 *Charges*

States Departments should think carefully before introducing new charges under the "user pays" policy. Tipping charges, for example, will result in higher construction costs.

Recommendation 27: Increases in existing charges should be kept to a minimum and should not be increased automatically by the cost of living each year.

3.5 Small and occasional clients of construction

The Committee is aware that much of what it has discussed is relevant to larger and regular clients of construction but that occasional clients need further consideration. There is a need for some best practice recommendations for householders in dealing with builders to carry out extensions, alterations etc.

Market failure can occur due to information asymmetry in the sector of the Industries concerned with the smaller and occasional client of construction. Bargaining power is clearly unequal, largely because the level of information of one party in respect of procurement practices and processes is greater than the level of understanding of the other. Contractors and designers are more knowledgeable than their clients. The problem is one for both clients and the industry because such market failure will result in a slower move towards best practice in the industry.

Although the Intermediate Form of Building Contract, IFC 84, is increasingly used for smaller works, the new Joint Contracts Tribunal Building Contract for Home Owners/ Occupiers has the Crystal Mark for clarity and may be more appropriate for the client of small works.

Recommendation 28: The Construction Board of the Industries Committee to review the latest JCT Building Contract for Homeowners/Occupiers issued in late 1999 with a view to adjusting it for use in Jersey, and the desirability of producing guides and useful information for smaller and occasional clients.

3.6 Discontinuity of demand

When demand is low and falling, construction firms find it difficult to fully utilise their workforce. While the firms will attempt to adjust their labour requirement accordingly, the process of transition takes time. On an Island where skilled labour and management may be difficult to find and retain firms are, perhaps, slower at reacting to reduced demand for construction services because firms may be reluctant to make workers redundant for fear of not being able to readily replace them when demand picks up once again. During this period, a firm will inevitably have a lower productivity ratio.

During recession firms do become more competitive in their bid to obtain work, and adversarial in an attempt to recover costs through claims on existing contracts. When demand increases, firms having laid off skilled workers will often be slow in hiring new direct labour, and will attempt to meet their labour requirements through sub-contracting. This is often seen as a problem in achieving the required quality of labour, and producing the continuity of expertise to bring about productivity increases. The nature of client demand therefore appears to dictate the structure of the industry, which positions itself to meet that demand.

The Committee received many pleas from the industry for The States, as a major client, to manage demand more effectively.

3.7 Timing and value of tenders

All public sector projects are monitored on a monthly basis to confirm the anticipated date of tender and contract value. The Public Services Department carries out a quarterly review of the integrated construction programmes for public sector projects and of the anticipated construction programmes for known private sector projects. The knowledge gleaned from the private sector is based upon informal discussion with architects, quantity surveyors and contractors. The department monitors the quarterly reviews and tries to balance the timing and value of tenders to avoid a clash between public sector and private sector tenders. Where a clash is apparent a Committee may be asked to delay a project (or very rarely to accelerate a project). Since the department has no control over the timing or value of private sector projects, it has been the public sector that has had to try to avoid a tendering clash.

It is in the interests of the public sector to avoid a clash. During 1977/1998 the private development of luxury apartments lead to the increase in tendering levels and caused inflated labour rates in carpentry, joinery and plastering trades.

As was pointed out to the Committee by the Chief Quantity Surveyor the problem with the private sector is that the developer is not constrained by a limited budget. It is often in the developer's interest to complete a project as early as possible and receive income as quickly as possible to reduce the burden of finance charges, therefore, they are prepared to pay enhanced labour rates to secure early completion.

Those in the private sector have been encouraged to contribute information because it is in their interests also not to inflate the market unduly and in the contractors' interests not to suffer the feast/famine cycle so evident in this industry. Other jurisdictions, such as Singapore, have placed control over the timing and value of both private and public sector projects on a formal basis.

The Committee has been keen to recommend a similar approach to be taken in Jersey. Until very recently, however, this recommendation was circumscribed by a lack of knowledge about the capacity of the construction industry.

3.7.1 Capacity of the Industry

The States of Jersey Statistical Officer has now estimated the annual capacity of the construction industry in the Island to be between £120 and £130 million. The figures do not include small works, estimated at £18 million capacity; civil engineering works, approximately £12 million capacity: non-building works; capital equipment or fees.

It is already known that the anticipated building construction in 2001 in the private and public sectors together far exceed the maximum capacity of the industry. Furthermore, there are peaks and troughs in the timing of projects.

Three questions arise from this -

- In any slippage or cuts what should be the balance between public and private projects?
- What is the mechanism to be used to establish this balance?
- The present estimated annual capacity is between £120 million and £130 million but is this capacity what it

should be in terms of sustainability both in the Industry and the Island?

It can be argued that there is no limit to the capacity of the main contractors in the Island to handle construction projects since they can obtain licences to engage employees on a project-by-project basis. However, the States in adopting the strategic policy proposals in "2000 and Beyond" in 1995 set as an objective: to limit the Islands' population. Thus, there may be a conflict between the wishes of local contractors wanting to enjoy the benefits of surplus demand and the sustainability of the Islands population objectives. Clearly, a balance must be struck.

3.7.2 *Public/private split*

In introducing the idea of a cap and control over the amount of work coming onto the market at any one time, the Committee agreed that a 50:50 split between public and private sectors is politic. It is also in keeping with the contractors' preference for a mix of different types of work. Once the idea is accepted, however, consideration should be given to the nature of the projects coming from both sectors, perhaps necessitating something other than an equal split. For example, there may be a case for a greater share to be taken by social housing in a time of severe housing shortage when competing for licences with luxury developments in the private sector, particularly those projects aimed at people from outside the Island. Projects being pursued by WEB should be included any calculations. Even where contractors from outside the Island are to be engaged such contractors are likely to use local subcontractors thereby having an effect on the overall capacity of the local industry.

3.7.3 *Mechanisms for regulation in the Public Sector*

Regulation of the public sector targets can be achieved through deferment of projects.

The control of demand is a vexed question – no less in the Public Sector. Agreement has to be sought with Committees as to which schemes are to suffer slippage. The second problem arises from the fact that the demand for public sector projects tends to follow the cycle for those for the private sector. For example, not so many years ago a mini-recession led to a fall in demand from the private sector for construction work. At that time the Housing Committee also stopped building public housing on the grounds that demand and supply for housing was in equilibrium. Now that the industry is beginning to recover after demand has picked up in the private sector there is a consequential demand for public sector projects such as housing, schools etc. Thus, the management of demand is not a simple matter. It needs to be monitored sensitively to avoid a build up of demand leading to bottlenecks and public pressure on the States to reverse the policy. In addition, there will be revenue implications as refurbishment and maintenance is increased as a way of overcoming the curtailment of capital projects.

3.7.4. *Mechanisms in the Private Sector*

There are two options open to the States here. One is to use the information gleamed by the Public Services Department to manage the timing of the letting and starting of public sector projects so as to avoid a clash with those in the private sector. There are obvious difficulties with this approach in that projects in both the public and private sector may not be ready to start according to their available time slot and they may overrun, causing bottlenecks. Furthermore, capital projects, particularly in the public sector, take many years to come to fruition – they cannot be turned on and off like a tap. Management of demand in this ad hock fashion is unlikely to iron out the economic cycles in the longer term.

A more interventionist approach, but one which would give greater control to the States, would be the use of Part Three of the Regulation of Undertakings and Development (Jersey) Law 1973. The granting of Licences to the private sector under this Law could be time limited with provision for a start date and completion date. Projects unable to fulfil these requirements would have to go to the bottom of the list and await another available opportunity that may be some months or years in the future. Even this does not provide a foolproof mechanism to match demand to capacity in the industry. Where a project in the private sector is not able to begin on time, it may not be possible to easily find an alternative project in either the private or public sector to fill the gap.

This mechanism will need to be operated with a light touch if it is not to give out the message that "Jersey is closed for business", as happened in the early 1990s. In addition the construction industry has only recently come out of recession. The industry needs to have confidence in its future if it is to continue to make the necessary investment in plant, machinery, equipment and in the training of local people. There is some evidence that the current flurry of activity is a catching up process and has to be balanced against the downturn in the tourism industry and the effects of other aspects of the Regulations and Undertakings Law designed to reduce demand for labour thereby affecting the demand for commercial premises.

Recommendation 29: The Industries Committee to utilise Part Three of the Regulations of Undertakings and Development (Jersey) Law 1973 as a means of managing demand for construction.

3.8 Selling

The Building Materials Prices Working Party of 1993 expressed surprise at the lack of concern from some members of the construction industry at the level of material prices. Such prices, however, must be placed within the context of a buoyant economy and particularly a high level of housing demand. Subsidised loans, unrestricted tax relief on mortgage interest payments and low interest mortgage facilities for employees of many financial services institutions contribute to a generally high level of housing demand and for a buoyant construction industry. Both developers and clients for construction are less sensitive to costs in such a buoyant market. Prospective first time buyers are particularly disadvantaged by this situation.

Movements in house prices in Jersey are measured by the Jersey House Prices Index (HPI), which is a transaction based index collated from the average of resale prices of a standard collection of dwellings. Prices used in the collation of the HPI are the net sale prices taken from the Jersey Property Bulletin and exclude extraneous costs such as legal fees, stamp fees, agency fees. Dwellings included in the Index are three/four bedroom semi-detached, post-war construction and without intrinsic features of special value such as sea views, granite construction, large gardens etc.

Year	*Price*	*Index*	*Movement %*
1985	57	100	
1986	61	107	7.0
1987	69	121	13.1
1988	81	142	17.4
1989	99	174	22.5
1990	118	207	19.0
1991	128	224	8.2
1992	137	240	7.1
1993	136	238	-1.0
1994	140	244	2.5
1995	140	244	0
1996	148	258	5.7
1997	171	299	15.8
1998	217	379	26.9
1999	244	426	12.4

Source: www.jerseyinsight.com/3/06/00

With house prices increasing more than four fold since 1985, it is not surprising that certain sectors of the construction industry and certain clients of construction are not unduly concerned about high costs. The Committee is concerned however about the sustainability of such an inflated market and in particular the effect of such inflation on first time buyers and the small, occasional client for construction services.

It comes as little surprise then that land values are also high.

Recommendation 30: The Finance and Economics Committee to give further consideration to the recommendation of the Fiscal Review Working Group in respect of mortgage interest tax relief and other interest tax relief and to bring proposals to the States thereon.

4.0 Conclusions

The principal reasons for higher costs have been found to be -

- cost of labour;
- cost of shipping, including harbour dues, stevedoring;
- cost of transport in the Island;
- impact of States Regulations;
- design/specification;
- demand exceeding supply;
- lack of competition in certain sectors;
- lower productivity;
- inability to take advantages of economy of scale;
- macro-economic conditions associated with a highly successful Island economy.

Below appears a summary of specific recommendations designed to overcome many of the problems highlighted during the Inquiry. Some of the recommendations are specific to the industry, some to States Committees and departments while others advocate a cultural change to achieve better performance with fairness to all through the promotion of teamwork. The Committee believes that such an approach offers the greatest opportunities to achieve improved productivity, greater satisfaction for all those involved in the construction process and reduced costs.

Summary of Recommendations

The recommendations are set out below into firstly, macro policy issues and secondly into more specific policy areas affecting particular Committees and Departments.

Macro Issues

No.	**Recommendation**	**To be actioned by**
6	The budget for a specific project would not be announced in the States without jeopardising general openness and accountability.	**The States**
No.	**Recommendation**	**To be actioned by**
16	TEP in consultation with the Industry to develop a comprehensive programme to meet all the immediate and longer-term training needs of the construction industry as discussed in the Report, and to review the co-ordination of all training and education in construction. TEP should also consider the merits of introducing a training levy with the money raised being hypothecated for training purposes.	**TEP**
18	The States and the Harbours and Airport Committee should conduct a review with the aim of ensuring that harbour users only bear directly related costs and that the harbours should not be used as a source of revenue.	**States/Harbours and Airport Committee**
19	The Finance and Economics Committee to agree that internal loans should be at competitive rates.	**Finance and Economics Committee**

20	The Planning and Environment Committee should adopt Option 5, "Sand imports only/long-term port development" as set out in Section 6.3.5. in the Jersey Mineral Study.	**Planning and Environment Committee**
21	The Industries Committee to develop a policy of greater competitiveness within the construction industry and to investigate and evaluate the appropriateness of anti-competitiveness legislation for Jersey.	**Industries Committee**
No.	**Recommendation**	**To be actioned by**
23	The five per cent Rule for mainland contractors should be abolished.	**States**
25	Consideration should be given to the feasibility of central bulk purchasing for example for the housing and education programmes and the use of standard components in future building projects.	**States/ Building Costs Inquiry**
27	Increases in existing charges should be kept to a minimum and should not be increased automatically by the cost of living each year.	**States**
29	The Industries Committee to utilise Part Three of the Regulations of Undertakings and Development (Jersey) Law 1973 as a means of managing demand for construction.	**Industries Committee**
30	The Finance and Economics Committee to give further consideration to the recommendation of the Fiscal Review Working Group in respect of mortgage interest tax relief and other interest tax relief and to bring proposals to the States thereon.	**Finance and Economics Committee**

Micro Issues

No.	**Recommendation**	**To be actioned by**
1	Partnering activities should best be focused upon single project, team-building seminars.	**All Committees**
No.	**Recommendation**	**To be actioned by**
2	Private clients and the States should adopt a strategic approach to managing costs and use Target Cost Contracts	**All Committees**

	wherever appropriate.	
3	Design competitions to be used only when they can to be demonstrated as appropriate for the specific type of building required and providing value for money.	**All Committees**
4	Tender lists for projects costing over £200,000 should be more selective and kept to a sensible length. Lists of approved contractors should be based on performance, continually monitored and updated in terms of achieving or failing to achieve benchmarks.	**Public Services Committee and other Committees**
5	The Capital Projects Review Sub-Committee conduct pre-contract reviews of projects where preliminary estimates are significantly higher than expected.	**Capital Projects Review Sub-Committee**
7	The Construction Board of the Industries Committee to work with the Jersey Construction Forum to adopt a proactive approach to educating clients about their role in project management, perhaps through a series of client guides.	**Construction Board of the Industries Committee**
8	Formal induction process for P70 Groups, detailing individual responsibilities and accountabilities.	**All Client Committees**

No.	Recommendation	To be actioned by
9	P70 Groups concerned with major capital projects should be chaired by a project manager with proven professional experience.	**All Client Committees**
10	States Departments should raise the profile of the States as a leading client by using the best suppliers of goods and services; establishing tender procedures with the aim of procuring those who offer the best service; advocating team-working rather than adversarial relationships; pursuing dialogue with the industry to reduce the potential for conflict within projects; discouraging the "claims culture"; using modern and unambiguous contracts; stating how variations are to be dealt with; and seeking quicker settlement of contractual issues.	**All Committees**
12	The Construction Board of the Industries Committee to take forward the concept of partnering using a phased approach as discussed in the Report and outlined in Appendix 3.	**Construction Board of the Industries Committee**
13	Clients treat the abuse of trust appropriately severely e.g. by removing offenders from future tender lists, finding alternative suppliers etc.	**All Client Committees**

No.	Recommendation	To be actioned by
14	Further research should be undertaken to investigate why the following costs are so high in Jersey compared with the South East of England, particularly in respect of: concrete, including the use and charging for pumps, precast concrete, suspended ceilings, different types of flooring, mechanical and electrical installations.	**Committee of Inquiry into Building Costs**
15	The Construction Board of the Industries Committee to work with the relevant trade associations to review the levels of qualification and experience required to operate as a contractor or subcontractor in certain trades.	**Construction Board of the Industries Committee**
17	Further research should be undertaken to evaluate the extent to which the level of higher costs for stevedoring in Jersey is justified.	**Committee of Inquiry into Building Costs**
22	The Home Affairs Committee to consider the feasibility of relaxing transport regulations on prescribed routes.	**Home Affairs Committee**
24	Clients in both the public and private sector should conduct a cost-benefit analysis on major projects to determine the extent to which a higher initial capital cost due to higher specification relates to long-term costs. Further research into specification standards is required.	**All Client Committees/ Committee of Inquiry into Building Costs**

List of Appendices

Number	*Details*
1	Organisations submitting evidence
2	Details of Report and Publications
3	James R. Knowles - Way forward/Draft Outline Action Plan
4a	E.C. Harris stage 1 Benchmarking, Building Costs, elemental comparison of residential and office developments
4b	E.C. Harris stage 2 Benchmarking Building Costs, trade analysis
5	List of representatives of construction industry interviewed

6	Flowchart

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APPENDIX 1

Organisations submitting evidence

1. Jersey Construction Forum
2. Norman Limited
3. Pentagon Builders Merchants
4. Precision Plastics
5. Quantum Building Supplies
6. Romerils
7. Iron Stores
8. Ronez
9. Granite Products
10. Simon Sand
11. Commodore
12. Huelin Renouf
13. Jersey Hospitality Association
14. Harbours and Airports Committee
15. Finance and Economics Committee
16. Defence Committee
17. Public Services Committee
18. Policy and Resources Committee
19. Planning and Environment Committee
20. Housing Committee
21. Morvan Fils Transit
22. George Troy & Sons
23. Stansells Limited
24. Chamber of Commerce
25. Jersey Building and Allied Trade
26. Institute of Directors
27. Royal Jersey Agricultural and Horticultural Society (RJA&HS)
28. Camerons
29. Jersey Business Venture
30. Jersey Harbours
31. Jersey Steel
32. Jersey Electricity Company Limited
33. Pallot Tarmac
34. Jersey Association of Plumbers and Heating Engineers
35. Michael Felton Limited
36. Tillyards
37. Jersey Electrical Contractors Association
38. The Royal Institute of Chartered Surveyors – Jersey Group
39. Jersey Federation of Consulting Engineers
40. States of Jersey Regulation of Undertakings & Development Office
41. Public Services Department
42. Waterfront Enterprise Board

A number of submissions were made by individuals not listed here.

APPENDIX 2

Details of reports and publications

Barlow, J. and others
Towards Positive Partnering University of Westminster published by the Policy Unit University of Bristol

Bennett, J. and Jayes, S. (1995)
Trusting the Team: The Best Practice Guide to Partnering in Construction, Centre for Strategic Studies in Construction at the University of Reading with the Partnering Taskforce of the Reading Construction Forum.

Construction Industry Board

- *Partnering the Team* Thomas Telford Publishing
- *Constructing Success* Thomas Telford Publishing
- *Towards a 30% Productivity Improvement in Construction*, London: Thomas Telford
- *Cost-Trust Relationship* Publication 24-1 Austin: CII

Cox, A. (1997)
Business Success, a way of thinking about strategy, critical supply chain assets and operational best practice Boston: UK Earlsgate

Cox, A. and Townsend, M. (1998)
Strategic Procurement in Construction, London: Thomas Telford

Deverill, N (1996)
Change and Innovation in Government Procurement

The Egan Report (1998)
Rethinking Construction DETR

European Construction Institute
*Partnering in the Public Sector (*Loughborough University) ECI

Gransberg, D. Dillon, W. Reynolds, L. Boyd, J.
Quantitative Analysis of Partnered Project Performance: Journal of Construction, Engineering and Management May/June 1999

Franks, J. (1998)

Building Procurement Systems, a Clients Guide, 3rd Edition. England: Longman

Knowles, James R. (1999)

- *Haute Vallée School: Post Completion Review*
- *Le Rocquier School: Pre Contract Review*
- *Hautlieu School: Pre Contract Review*
- *Draft Outline Action Plan* May 2000

Latham, M. (1994)

- *Constructing the Team*. London: HMSO
- *Construction Procurement by Government* HMSO
- *Setting new Standards* HMSO

Liddiard, D. (1999)
Report on Building Costs: Business to Business March 1999.

Reading Construction Forum

- *Trusting the Team* University of Reading
- *The Seven Pillars of Partnering* University of Reading
- *Unlocking Specialist Potential*

States of Jersey

- *Building Costs Working Party Report RC6/87*
- *Building Materials Prices Working Party Report RC34/93*
- *Fiscal Review Working Group: Second Report RC37/99 (paragraphs 26/32 inclusive).*
- *Jersey Mineral Study March* 1999 *Planning and Environment Committee*
- *States of Jersey Statistical Review (1997).*
- *Trade & Industry Sub-Committee Reports on -*
  - *Commercial Floor Space RC36/96*
  - *The Local Construction Industry RC32/96*
  - *Non-Local Competition RC32/96*
  - *Freight Costs RC31/96*

Townsend, M. (1996)

- *The Context of Japanese Best Practice- Learning from Japanese Construction*, Construction Productivity New-work Workshop, Water Services Association, London CIRIA

University of Westminster, Education, Training & The Labour Market Research Group

- *Construction Skills Audit and Training Needs Analysis* 2000 (Unpublished)

These publications are now available for viewing at the States Greffe

APPENDIX 3

BUILDING COSTS IN JERSEY
COMMITTEE OF ENQUIRY

WAY FORWARD
DRAFT OUTLINE ACTION PLAN

May 2000

Nigel R. Barr MBA, FCIArb, FRICS
Executive Director

Adrian J. Smith MEd FRICS FHKIS
Senior Consultant

1.0 Introduction

This purpose of this Draft Action Plan is to summarise the key issues arising from our research, and to suggest a possible way forward through which the States might achieve its objectives in respect of improved performance and value for money in construction procurement. The Plan builds upon and develops further some of the themes previously identified in our earlier Reports dated December 1999, February 2000 and March 2000.

2.0 Major Issues

Our investigations to date appear to show that there are significant differences in the ways in which the demand and supply sides of the Jersey construction industry perceive themselves and each other. Acceptance and understanding of these issues is crucial in formulating an acceptable development strategy, and we therefore summarise what we consider to be the key issues extracted from our previous reports, in order to set the scene for our suggested outline strategic plan.

2.1 The client's view

It is plain that the public sector client in Jersey is primarily interested in ensuring firstly that the Jersey construction industry remains sustainable in the long term and continues to make a valuable contribution to the economy, and secondly that new construction activity enhances the existing built environment. It does however believe that at present:-

(i) public sector construction costs are too high and that this is having a deleterious effect upon overall economic performance;

(ii) that the construction industry is poorly managed in that performance in completing projects within budget, on time and to the specified quality standards is inadequate. There is clearly a feeling of some exasperation that conventional contractual remedies fail to motivate contractors to improve their performance.

Whilst the industry is perceived to be generally co-operative in nature, it is considered that there is still considerable scope for improvement in the relationships between the various members of the team.

The client perceives itself to be to open to new ideas and innovative suggestions for improving construction performance, provided that these do not compromise its primary role of preserving and enhancing the economy and the environment.

2.2 The Industry's view

Among both construction contractors and consultants there appears to be a perception that government:-

(i) is overly bureaucratic with rigid procedures and slow decision making processes

(ii) is frequently inconsistent in that different departments deal with similar issues in different ways

(iii) has little real understanding of construction problems or of how the construction industry actually works.

Contractors believe themselves to be doing their best in frequently difficult circumstances, and that they are both undervalued and largely misunderstood by others in the construction team.

Consultants are perceived by contractors in a very negative way in that they are considered to be frequently arrogant and largely adversarial.

The consultants' perception of contractors however appears to be rather more balanced. On the one hand, whilst they are considered to be inconsistent and to have poor quality control and programming skills, on the other hand they are also seen to be increasingly well informed, co-operative at the management level, and becoming less confrontational.

2.3 Summary

Whilst there are plainly major differences in perception between the various parties involved, all of the groups involved in our research have indicated strongly that they believe there are major opportunities for improvement in the procurement and execution of construction work. The notion of a more collaborative approach to construction is generally welcomed, but there is presently a clear lack of trust between the various groups, with little common perception of how a more collaborative approach might be engineered. There is also, predictably, some scepticism about whether the introduction of techniques which have proved successful elsewhere would lead to similar results in Jersey given the constraints under which the local industry operates, and also whether these techniques will lead to genuine and sustainable long term improvements.

None of these issues is unexpected, and all of them are common concerns among other similar groups elsewhere in the world. Overcoming them will present a considerable challenge in engineering a significant attitudinal and cultural shift on the part of all concerned, but we believe that the potential improvement on offer will amply reward the effort. We believe that the existing Construction Forum could potentially take a very important role in this area. Changing people's attitudes and overcoming existing prejudices is usually very time consuming and potentially very difficult, and the process must be carefully managed if the initiative is to be successful in the long term.

3.0 The way forward

We propose that a strategic plan be developed to overcome the problems described above, and we outline below the work which we believe needs to be undertaken. It has already been agreed that experience elsewhere indicates that a more collaborative approach to construction procurement offers significant advantages over the present confrontational approach, and the adoption of this method of working therefore forms a major plank in our proposed strategic action plan.

Our proposed action plan is based upon a three-phase approach as set out below.

3.1 Phase 1 - Preparation

The first phase of our proposed action plan concentrates on putting into place the tools required to enable the subsequent development and adoption of new procedures and methods of working which will be widely acceptable across the industry. We propose that the primary vehicle for phase 1 should be the development and evaluation of a small number of pilot “demonstration” projects, through which the concepts of innovation and collaboration can be trialed and evaluated.

We suggest that phase 1 commence as quickly as possible, and we have identified the following specific activities which need to take place:-

(i) *Establish the detailed objectives for the pilot projects.* In other words establish the criteria against which the projects will be measured (i.e. the key performance indicators), the baseline values (i.e. the benchmarks) against which the projects are to be judged, and the method of assessment and evaluation.

(ii) *Decide upon the degree of innovation to be incorporated.* Identify the specific techniques to be incorporated into the pilot projects (e.g. the early introduction of the contractor, partnering, target cost contracting, guaranteed maximum price, new forms of contract etc.)

(iii) *Identify a small number of pilot projects (perhaps only one or two).* Ideally the projects chosen should be typical of the type of projects normally carried out in order that a realistic evaluation may be made. Projects should be chosen which are at a sufficiently early stage to permit the most effective use of the proposed techniques. Considerable care would be required in the selection of project teams.

(iv) Monitor and evaluate the projects.

It will be important that the pilot projects are seen to properly monitored and independently evaluated, and we therefore recommend that a small independent steering group composed of members from all sides of the industry be established to oversee this task.

We also recommend that the following activities, which are not directly related to the pilot projects, be undertaken without delay -

(i) Review the role, objectives and composition of the Construction Forum. Consider whether the Construction Forum could be used as an effective agent for change within the Jersey construction industry, and if so determine how they could maximise their ability to shape and influence attitudes and techniques.

(ii) Examine and review existing planning and approval procedures. Contractors are clearly frustrated by what they perceive to be overly bureaucratic procedures. Whilst not directly relevant to the issue of public sector procurement, it might help to bring the two sides of the industry together if government could be seen to be at least considering whether or not existing procedures could be reviewed in consultation with others in the industry.

(iii) Consider structured training. Consider the possibilities for introducing a short course in collaborative methods and techniques for professionals working in the Jersey construction industry. It is possible that Highlands College might have a role to play here.

(iv) Consider the development of structured methodologies to involve end users more actively in the construction procurement process. We strongly believe that it is essential that the end user should have a voice in the development or redevelopment of the built environment. One way in which this process could be introduced in a structured way would be to develop and implement a system of post occupancy evaluation of all new facilities. This technique is now regarded by the Treasury to be an important part of the procurement process for UK public works.

The overall timeframe for completion of phase 1 would be directly related to the construction period of the development projects. We would anticipate that the total time period might be in excess of 12 months, but it may well be possible to draw some preliminary conclusions before the pilot projects are fully complete.

3.2 Phase 2 - Development and evaluation

Phase 2 concentrates upon reviewing the outcomes from the activities proposed in stage 1, with the objective of disseminating the lessons learned more widely. This cultural change process would need to be supported by the development of revised procedures for construction procurement and a critical examination of existing contractual arrangements in order to maximise the advantages of a collaborative approach.

Both the commencement date and the specification of the detailed activities to be carried out during this stage would largely be dependent upon the evaluation of phase 1, and we therefore recommend that these should be the subject of further consideration once phase 1 is underway.

3.3 Phase 3 - Full implementation

Phase 3 is concerned with the full implementation of the procedures developed in phase 2. Experience elsewhere indicates that this stage in the process frequently demands substantial adaptation of existing working methods and practices on all sides of the industry, and that this usually requires substantial training and development.

Again the precise timing and duration of phase 3 is dependent upon the previous stages, but assuming phases 1 and 2 to be satisfactory we would expect the execution of phase 3 to be a relatively straightforward process.

4.0 Conclusions and recommendation

We believe that the draft strategic action plan outlined above presents a reasoned methodology designed to enable the States to achieve its objectives of improving value for money within the constraints of a sustainable island construction industry.

We look forward to the opportunity to continue to work with the States to help them to realise their goal.

APPENDIX 4a

BENCHMARKING BUILDING COSTS
STAGE 2 REPORT

For

THE STATES OF JERSEY

Date 17 April 2000

Prepared by
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Manchester M3 2NH

For
Audit & Risk Management Division
States of Jersey Treasury Department
Cyril Le Marquand House
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In conjunction with
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78 Halkett Place
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Jersey JE2 4WH

CONTENTS

1. INTRODUCTION

1.1 Instruction

1.1.1 This report should be read in conjunction with our Stage 1 report dated 1st December 1999 and the presentation of our initial findings to the Committee of Enquiry on the 17th December 1999.

1.1.2 Our brief was to analyse in greater detail the elements which had been identified within our Stage 1 report as being of significant importance and also having a substantial difference in cost.

1.1.3 Further to the presentation of our initial findings to the Committee of Enquiry on the 17th December 1999 it was proposed, and accepted that the further investigation would take the form of a trade analysis. This approach has identified more specifically the areas which account for the significant differences in cost.

1.1.4 By identifying these areas we have obtained results which are more detailed than the elemental analysis included in our Stage 1 report - the elemental analysis concealed some of the construction activities which account for the differences.

e.g. Works to form the foundation of a building are classed within the element of 'Substructure' whilst the actual construction process involves a number of trades including -

Excavation & Earthworks
Concrete work
Brickwork & Blockwork

1.1.5 Notwithstanding the above, for the purposes of this Stage 2 report we have only considered trade sections which contribute a significant proportion of the overall construction cost.

1.2 Methodology

1.2.1 For the purposes of the Stage 2 report we have continued to use the pricing information and estimates obtained from the model projects listed below.

1.2.2 Housing project -

Bellevue Pleasure Park & Fields 91, 91A and 92
St. Brelade
Jersey

A mixed development of flats and houses (90 units) in 2 and 3 storey form
Tendered in July 1998
Approximate Gross Floor Area 7,695 m^2

1.2.3 Office project -

Clayton House
Clayton Road
Epsom
Surrey

A new 4 storey office block with semi-basement.
Tendered in November 1997
Approximate Gross Floor Area 1,910 m^2

1.2.4 Using the priced document and estimates prepared as part of Stage 1 the costs were summarised into 'trade sections' (see the table of results). There are two tables behind the table of results (one for Housing and one for Offices). The two tables have been summarised into one table in order to concentrate on the areas of significant importance.

1.2.5 For the purpose of this Stage 2 report we have only considered trades which comprise 1% or more of the total construction cost.

1.2.6 Having identified these major trade sections we have then suggested possible reasons for the cost differences which we have encountered.

2. RESULTS

2.1 The summarised trade analysis is tabulated below -

Trade Section	Model Project	Percentage Difference between Jersey and Surrey	Possible reason for difference
D20 Excavating and Filling			
- Excavation	Housing	-21	Cheaper fuel, cheaper insurance, down time less because of less travel time between jobs
- Disposal	Housing	-48	No landfill tax
- Filling	Housing	39	Cost of hardcore high because quarried locally
E10 In-situ Concrete	Housing	76	High cost of concrete locally
E20 Formwork for In-situ Concrete	Housing	-36	Possible higher usage of material
E30 Reinforcement for In-situ Concrete	Housing	27	Cost of importing reinforcement (high weight, low value)
F10 Brick/Block Walling	Housing	18	High cost of locally manufactured blocks
F30 Accessories/Sundry Items for Brick/Block/Stone Walling	Housing	20	Cost of importing insulation (high volume, low worth)
F31 Precast Concrete Sills/ Lintels/ Copings/Features	Housing	106	Reason for high cost unknown – Warrants further investigation

G10 Structural Steel Framing	Offices	61	Cost of importing steelwork (high weight, low value)
G20 Carpentry/Timber Framing/First Fixing	Housing	15	Cost of timber, cost of labour
H62 Natural Slating	Housing	-11	Roofing has historically been a very competitive item in Jersey
J20 Mastic Asphalt Tanking/ Damp Proof Membranes	Offices	47	Asphalt has always been expensive in Jersey therefore rarely used
K10 Plasterboard Dry Lining	Offices	67	Cost of importing plasterboard (high weight, low value)
K11 Rigid Sheet Flooring/ Sheathing/Linings/Casings	Housing	-2	Difference marginal so ignored
K40 Suspended Ceilings	Offices	77	Reason for high cost unknown – Warrants further investigation

Trade Section	Model Project	Percentage Difference between Jersey and Surrey	Possible reason for difference
K41 Raised Access Floors	Offices	69	Reason for high cost unknown – Warrants further investigation
L11 Metal Windows/Rooflights /Screens/Lou	Offices	50	Limited local competition, cost of importing material
L20 Timber Doors/Shutters/ Hatches	Housing	2	Difference marginal so ignored
L30 Timber Stairs/Walkways/ Balustrades	Housing	73	Cost of joinery high because of high rents and labour, cost of timber
M20 Plastered/Rendered/ Roughcast Coatings	Housing	25	High cost of importing plaster and plasterboard, cost of labour
M40 Stone/Concrete/Quarry/ Ceramic Tilling/Mosaic	Housing	14	Reason for high cost unknown, perhaps labour and importation costs
M50 Rubber/Plastic/Cork/Lino Carpet Tiling/Sheeting	Offices	40	Reason for high cost unknown – Warrants further investigation
M60 Painting/Clear Finishing	Housing	52	Cost of labour (very labour intensive trade)
P10 Sundry Insulation/Proofing Work/Fire Stops	Housing	24	Cost of importing insulation (high volume, low worth)
P20 Unframed Isolated Trims Skirtings/Sundry Items	Housing	-9	Reason for lower cost unknown – difference marginal so ignore
P30 Trenches/Pipeways/Pits for Buried Services	Housing	20	Involves filling to trenches with high hardcore costs
Q10 Stone/Concrete/Bricks/ Kerbs/Edgings/Channels	Housing	81	Precast work (see F30), concrete work (see E10)
Q20 Hardcore/Granular/Cement Bases/Sub-bases to roads/ Paving	Housing	11	Filling (see D20)
Q24 Interlocking Brick/Block Roads/Pavings	Housing	185	Materials all imported through local agent therefore no competition
Q25 Slab/Brick/Block/Sett/ Cobble Pavings	Housing	95	Materials all imported through local agent therefore no competition
R12 Drainage Below Ground	Housing	4	Difference marginal so ignore

3. CONCLUSIONS

3.1 By comparing the costs for both the housing and offices on a trade by trade basis we have succeeded in producing detailed results which give a sharper focus to the analysis of the differences in cost between Jersey and the South of England.

3.2 Whilst we have been able to offer possible explanations for the majority of the results, we have produced, there are some areas where costs are high for no apparent reason. These areas may warrant further investigation and include -

F31	Precast Concrete Sills/Lintels/Copings/ Features
K40	Suspended Ceilings
K41	Raised Access Floors
M50	Rubber/Plastic/Cork/Lino/Carpet/Tiling/ Sheeting

In addition to the above Mechanical and Electrical Installations were identified in our stage 1 report as requiring further investigation.

3.3 In conclusion, we believe the additional cost of construction in Jersey (18% Housing, 31% Offices – from Stage 1) is not attributable to a single cause but is the net effect of a significant number of variations between Jersey and Surrey. Whilst these factors in isolation appear to have a minor impact on the overall cost of houses and offices, the cumulative effect of a large number of increases appears to be significant.

APPENDIX 5

Organisations and Companies Interviewed

BG Romeril & Co. Limited

Commodore Shipping Co. Limited

Dandara

George Troy & Sons Limited

Granite Products (C.I.) Limited

Harbour Master

Jersey Association of Plumbing and Heating Engineers

Jersey Electrical Contractors Association

Norman Limited

Pentagon (Jersey) Wholesale Limited

Planning and Environment Committee

Policy and Resources Committee

Public Services Department

Regulation of Undertakings and Development Office

Ronez Limited

Stanstell Limited

The Jersey Building and Allied Trades Employer's Federation

The Jersey Chamber of Commerce

The Jersey Electricity Co. Limited

The Royal Institution of Chartered Surveyors (Jersey Branch)

APPENDIX 6