

**Transferring road maintenance to the private sector
Examples of UK experience**

by C C Parkman

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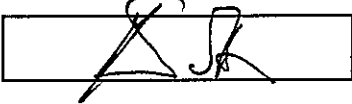
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TRANSFERRING ROAD MAINTENANCE TO THE PRIVATE SECTOR: EXAMPLES OF UK EXPERIENCE

ABSTRACT

Many countries are making increasing use of the private sector for road maintenance activities. The United Kingdom has a considerable background of this change process, both on the national road network and the local county road networks. This report describes the experience of two counties, who have adopted different methods for involving the private sector. Berkshire transferred its in house workforce to a contractor, and subsequently its planning and management function to a consultant. By contrast, Somerset transferred both its in house workforce and planning and management function to a single combined service provider. The report reviews the background to these changes, identifies the pressures for the change, and describes and comments on the new models. This study will contribute to a final report which addresses international experience of private sector road maintenance, which it is hoped will be of benefit to countries considering such changes.

1. INTRODUCTION

The Department for International Development (DFID) are funding a Knowledge and Research (KAR) project entitled 'Transferring road maintenance into the private sector'. The aim of this project is to assess critically how successful different approaches have been in procuring road maintenance from the private sector, and to identify how the change process from using an in house workforces (IHW) to using the private sector has been managed in various organisations.

The purpose of the study is to identify successful approaches which might be considered by those countries who receive assistance from DFID. Given the considerable change in the UK, in recent years, to the means by which road maintenance is procured and the different approaches that have been adopted in using the private sector, some case studies of experience in various UK counties were considered worthwhile.

Northamptonshire County Council was the first UK county to externalise its IHW for road maintenance in July 1992. Berkshire County Council (BCC) externalised only six months later, and so it is one of the most experienced local authorities in terms of using the private sector for delivering the road maintenance programme and therefore provides an interesting example of early experience in the UK. The case study was developed from some brief notes of previous meetings with staff at BCC and also from discussions between the author and the recent Assistant County Environment Officer from BCC.

In 1996, Somerset County Council (SCC) adopted a very innovative and fairly unique approach to the means by which it procures its road maintenance. In this approach, a

single contract has been let for an external service provider to both manage and execute all road maintenance activity within the county. For this reason, it provides an interesting example of more recent experience in the UK. The case study was developed from discussions held at SCC offices with various staff involved in highway management from both the client and service provider organisations.

The report discusses each case study in turn by considering the original approach in each council to maintenance management, the pressures for change and the new models subsequently adopted.

2. BERKSHIRE COUNTY COUNCIL EXPERIENCE

2.1 Background

The county of Berkshire is located in southern England and has a road network which covers both a rural and urban environment. The trunk roads in the county (approximately 120 miles) were historically maintained by BCC on an agency basis for the national Highways Agency (HA). The remainder of the roads (county roads), of which there are approximately 2000 miles, were historically maintained by BCC using their own IHW, except for some roads in urban centres which were maintained by the local District Councils. This case study addresses the maintenance of the county roads for which BCC are responsible¹.

In 1992, just prior to externalisation of the IHW, an estimated 450 staff were involved in managing the county roads, motorways and trunk roads, and streetlighting. This involved all aspects of road management from transport planning and management through to maintenance works activities on site and relates to approximately 350 staff in roles traditionally considered 'white collar' (professional and management) and 100 in roles considered 'blue collar' (skilled tradesmen and labourers and associated management).

Prior to externalisation, BCC had restructured (January 1987) along functional lines, so that there were distinctly separate IHW (responsible for service delivery) and client/manager divisions. By 1989 these divisions were operating separate practice accounts so that contractual procedures for delivery of maintenance were already well institutionalised by the time the IHW was externalised (November 1992). The IHW consisted of 72 staff immediately prior to externalisation.

In April 1993, the client/manager function was rationalised further, with the manager function being externalised in a similar way to the IHW. Hence during the first six months that maintenance was carried out by contract with the externalised IHW, it was supervised by BCC directly, after which it was supervised by a separate external

¹ In early 1998, BCC was abolished and their responsibilities were devolved to six different borough councils within the county. It is too soon to assess the effect of these changes on the road maintenance operations, and so the case study merely discusses the process of change within BCC until its termination.

management organisation who were also under contract to BCC (Babtie) The focus of this case study is the change process within the IHW operations, but the change of ownership of the management function is discussed where relevant to the subject

The overall road maintenance budget is determined by councillors (hereinafter referred to as Members) by apportioning the limited funding available between the various council services for which they are responsible Highway maintenance is not accorded a high priority and consequently budgets do not reflect the assessed need (over a period of time, there has tended to be a cyclical effect reflecting the fact that the effect of change in the budget is only recognised on the road network after a period of years) Within the total maintenance budget, professional advice by BCC staff is accepted by Members for spending on routine ('reactive') and periodic ('planned') maintenance The allocation of budgets between these categories of work is the responsibility of BCC staff, and since the externalisation of the manager function, the development of suitable programmes of work within these allocations is the responsibility of Babtie (the Manager) However, in all cases, final approval rests with Members It is interesting to note that with reducing budgets over recent years, an increasing amount of the budget needs to be spent on 'reactive' (e.g. pothole patching) rather than 'proactive' activities, which would extend the life of the roads The approximate annual spend on the county roads is £7m (comprising £4m reactive maintenance, £1m planned maintenance, £1m traffic management and other miscellaneous works amounting to £1m)

2.2 The pressure for change

During the 1980s, the requirements for compulsory competitive tendering (CCT) became increasingly more stringent, as set out in the Local Government Planning and Land Act (1980, then 1983 and 1987) The threshold value of work for which a local authority was obliged to call tenders was gradually reduced, and this had a significant impact on the delivery of road maintenance As was the case in many other counties, BCC found that the viability of their IHW to carry out road maintenance slowly reduced This was because many of the more attractive maintenance activities began to be won by the private sector under CCT rules, so that the IHW (unable to compete for work other than on BCC roads) was not able to operate at full capacity and was left with less commercially attractive winter and emergency maintenance activities This is reflected in the size of the IHW, which reduced from a staff of 90 in 1990 to its staff of 72 when it was externalised in 1992

Hence the fundamental pressure for change came from the broader economic situation driven by the national government objectives of increased competition As this situation progressed, however, managers at BCC became concerned that their IHW would soon become unviable and would be unable to maintain its legal obligations for winter and emergency maintenance The likelihood of continued redundancies was not attractive, and in response to this pressure and the requirements to provide an acceptable winter maintenance service, managers began to consider the possibility of externalising the IHW By operating in the private sector, the IHW would be able to undertake other works in addition to road maintenance on BCC roads, and so future work prospects for staff would be enhanced It would mean increased job security for

staff, which was a very important consideration, and also security of service delivery which is essential to fulfil the statutory obligations of BCC

It is interesting to note that this pressure for change in the operation of the IHW was different to that experienced for the externalisation of the 'white collar' manager function which happened at approximately the same time. The emphasis for change of the latter function was very much politically driven, with less of an objective assessment of future viability of providing the required service (in the case of the IHW, this being winter maintenance) by the managers involved.

2.3 The change process

In light of the above, senior staff at BCC prepared a report in 1990 on the viability of winter and emergency maintenance, with regard to the minimum number of staff and resources they considered necessary in order to fulfil requirements as set out in the local authority Highway Maintenance Code of Good Practice (1989). As a result of this report, members of the council then gave approval in December 1990 to carrying out a 'market testing' exercise, to consider the possibility of transferring all routine maintenance activities into the private sector.

The market testing report was completed in December 1991 and involved an assessment of the possible prices which might be obtained if the entire routine and emergency maintenance requirements were open to tender, let on a Schedule of Rates type contract under supervision by BCC (this responsibility later delegated to the 'manager', Babbie). This was the only model considered as there was no precedent in UK for any other type of contract maintenance approach, such as performance based or lump sum type contracts. A very simplistic typical Bill of Materials (annual) was produced and three interested major contractors (identified by BCC), as well as the IHW, submitted prices for the work after an informal invitation from BCC. A number of meetings were held with the interested contractors to ensure that they fully understood the scope of the work for which they were bidding - whilst they had experience of performing most works, they had no experience of carrying out the winter maintenance activities. On the basis of these discussions, it was then considered by BCC staff that prices submitted by these contractors were reasonable and realistic. The prices ranged from £1.2m to £1.8m, and the IHW's bid was valued at £1.6m, so that it was clear that cost savings could be obtained by appointing a contractor. Based on this exercise, the members of council then approved this approach and planning for the externalisation of the IHW then commenced.

During the following year, BCC staff then developed maintenance contracts in more detail and at this stage it was decided that three separate contracts would be let - one for the county roads, one for the trunk roads and one for electrical and streetlighting works. The decision as to the number of contracts was taken on the basis that this would provide the best allocation of risk to the parties involved. A single contract for the entire works could have been considered which might have attracted better prices from prospective contractors, but, particularly as there was very little experience of the approach in the UK, it was decided that the subdivision as above would enable BCC to best manage any possible problems.

Each contract consisted of a Bill of Quantities of the estimated amount of work ('ghost' bill of the annual amount of work), subdivided into each activity, and a component for transferral of staff, which provided details and information on all the council staff who were available for transfer to the contractor (any transferred staff would have a right to maintain their existing terms and conditions for employment, known as TUPE rights) Against the first component, the contractor was required to provide a Schedule of Rates, and then he was also required to state how many staff he would transfer from BCC The tendering procedure followed the European Union Official Journal (OJ) for procurement of works and services and the terms of the proposed contracts were four years

32 contractors, having satisfied the selection criteria, were invited to tender and approximately 20 submitted proposals Discussions were then held with the lowest three bidders for each of the three contracts, and there were many areas of negotiation in this since it was not only the total price as given by the Schedule of Rates, but also the issues of staff transferral which were considered, such as possible future redundancy rights and performance bonds The final evaluation was a balance of the lowest bid price and the highest number of staff transferrals proposed by each contractor and was undertaken under six headings technical competence, adequacy of proposed managerial and organisational arrangements, staff transfer proposals, financial appraisal of companies, works prices, and residual costs to be borne by BCC

The final awards ensured that approximately 80 per cent of staff were transferred to the contractors, and three separate contractors were appointed for the three contracts For the county roads contract, this involved a transfer of 56 BCC employees (43 operatives and 13 managerial and support/clerical staff) and included a guaranteed £3m minimum value of annual work However, the expected amount of work was considerably more than this and the successful contractor was also automatically entered on the shortlist (6 contractors) for all works tendered by the council during their term The county roads contract was won by Ringway who commenced services on 1 November 1992

The contractor took on all equipment from BCC previously used for maintenance of the county roads and were also able to use the depots owned by BCC for the term of the contract No formal valuation was made of the equipment by BCC prior to the contract for externalisation, although the value was known informally based on history and experience The ownership of specialist equipment, such as that used for winter maintenance, was retained by BCC so that this could be used in subsequent contracts if a different contractor took over the operations The ownership of non-specialist equipment was transferred to the contractor, so that if he was not awarded subsequent contracts he could choose, for example, to sell such equipment to the follow on contractor

During the change process, the biggest risk perceived by the contractor was probably that of the unknown in entering into a contract of this nature, given that this was a new initiative in the UK From a technical perspective, whilst he had experience of many of the maintenance activities, his experience of emergency and winter

maintenance was limited, although this was mitigated by the experience of the transferred staff. But the possibility of future work and a steady stream of on-going work were attractive prospects to contractors at a time when the construction industry was in a period of recession.

After due consideration, IHW staff decided not to proceed with the possibility of a management buyout, which would have been an alternative to the approach adopted and they were content to be managed by an experienced contractor, assuming their employment rights were maintained. During the process, many meetings were held with staff to explain the process and this was seen as vital to maintain morale and ensure, as far as possible, that concern for the future was minimised. This was also important as it was understood that although the process had become inevitable (the alternative was redundancies), the work would still be carried out by the existing IHW staff in the new organisation so that relationships would need to be maintained for the good of the future contract. The IHW staff also had many of their own meetings in which they aired and discussed their various concerns.

2.4 The new model

The contract between BCC and the contractor Ringway is a modified Institution of Civil Engineers (ICE) fifth edition. The contractor has provided a schedule of rates for the various maintenance activities, which are developed from the standard specifications and methods of measurement adopted by the UK Department of Transport. As noted earlier, for the first six months of the contract the combined role of Employer and Engineer was carried out by BCC. Once Babbie were appointed to manage the network, they became the Engineer under the contract. The contractor only carries out work if instructed to do so by the Engineer, in the form of a Works Order. The contractor is paid monthly based on the completed Works Orders he has achieved to date, and whilst there are liquidated damages stated under the contract, there are no financial penalties or bonus payments for performance of the contractor.

The Engineer issues Works Orders based on routine inspections which he carries out on the network, as well as any inspections in response to requests from the public or members of council. The frequency of inspections is defined based on BCC obligations for insurance and litigation purposes and varies from monthly inspections on main roads through to biannual inspections on more minor roads. These inspections are sometimes carried out on foot, or otherwise from a vehicle, and identify all defects which need to be corrected. The definition of a defect is specified by BCC for different hierarchies of road, although this specification is more a framework rather than a detailed measure, and much is left to the interpretation of the inspector on site. For each defect, the extent and severity is recorded and this determines the response time allowed for the contractor to correct the defect, or to make it safe, once he has been issued with the Works Order. For the county roads, approximately 3000 Work Orders have been issued annually.

In addition to the above work, the contractor has also been used to carry out many other packages of work, such as traffic calming and traffic management schemes, and he is entitled to perform these at his agreed rates for packages up to a value of

£50,000 In addition, he has also been included on the shortlist of larger projects on the network, such as rehabilitation or widening works, and the annual value of this work let by BCC has been approximately £4m, so that he has been able to win a proportion of this programme as well In 1997, the total value of completed work amounted to £7m

The major lesson learnt during the initial period of the contract was the need for proper scheduling of works Prior to externalisation, BCC's relationship with its IHW was historic and managers were used to being able to ask the IHW to perform activities on a more ad hoc basis depending on day to day changes and requests By setting up a formal contract relationship, this method of working became unacceptable Hence close cooperation became a necessity for the Engineer, in developing the work programme and the Works Orders, to ensure that the contractor was able to carry out his work on an efficient basis Therefore it evolved that highway maintenance engineers met weekly to formulate programmes and problems and issues were dealt with by management at formal monthly meetings

Other lessons learnt are apparent in the way the second contract, let in November 1996, was set up (all three contractors were in fact awarded the follow up contracts, which were for another term of four years) The major concern for BCC was the issue of dealing with performance of the contractor and ensuring that the standard of work was acceptable As stated earlier, the contract does not allow for any financial penalties in this respect, and whilst the contractor should only be paid for work completed in accordance with the specifications, this is not easy to monitor with such a large amount of Works Orders being issued

Following the improved performance of undertakers under the New Roads and Street Works Act (1991, with subsequent enabling regulations) as a result of improvement notices, BCC have adopted a system of penalty points, which defines for each activity a number of points depending on the extent and severity of any non-conformance The contractor is allowed to accumulate a limited number of points in any one month, and if his accumulation exceeds this he is reported to the highways committee of BCC It has been found that the contractor is extremely keen not to be reported, since this would not only affect his public relations with the county and the possibility of future work with BCC, but also it might affect his image outside the county Other clients often approach BCC for references, and with a clear, objective system such as that adopted, such references might now identify specific defects in performance which is not helpful to a contractor who is seeking to secure work with these clients

In general, the lessons learnt and applied in letting the second contract were managerial rather than technical To further strengthen the need for good programming, the revised contract states how often meetings should be held, defines who should attend and specifies the agenda

2.5 Conclusions

In the view of Members and BCC management, the externalisation has been a success and it is generally considered that maintenance of the network is now carried out more

efficiently than under the previous in house arrangement. Nevertheless, there are lessons which are of benefit to other agencies considering externalising their services.

One of the key issues has been the new arrangements within the client BCC organisation. It is felt that there was too little attention given to this prior to the initiative, and indeed the client side was weak when the first contracts were awarded, with staff uncertain of their new role. In addition, once the manager function had also been externalised to Babbie, there was a real danger that the client side would lose its ability to properly monitor and take responsibility for the performance of the network. It is a legal requirement that the client side must not just provide a 'rubber stamp' of the work of its contractors, but should have an ability to professionally discuss and challenge its contractors on their performance and recommendations. BCC have actually recruited staff since the externalisation to ensure that this is achieved (demonstrating an increase in cost of maintenance, in real terms). It is essential to have high calibre staff who have a wide experience and decision making abilities, as the client side have a senior management role and are accountable to elected Members.

Another major lesson was the need to continually involve staff and inform them of developments during the transfer process. The staff who originally performed the work in the BCC IHW continue to do that work for the new contractor and it is interesting that during the letting of the second round of contracts, BCC still considered that the original staff TUPE rights would apply. It could therefore be implied that the maintenance has only become more efficient, rather than more effective, and that this has been achieved through more efficient management procedures conducive to optimising the programming and scheduling of activities, rather than in carrying out the activities *per se*.

The key lesson seems to be that scheduling and programming of activities has been improved through the externalisation process. Without good management of developing the works programme and regular meetings to cooperate with this, it is unlikely the approach would have been successful. Indeed, it would have been more comfortable at the outset if these procedures had already been in place, and in principle there is no apparent reason why this cannot happen if a proper separation of the functional roles is established. At BCC however, the new system seems to have enabled a more clear definition of the various parties precise roles.

The process has taken time to become fully institutionalised and its success would have been more difficult to achieve if earlier initiatives had not themselves also been institutionalised. In particular, the separation of the client and contractor functions had been in place for six years by the time the IHW was externalised. This enabled BCC to properly establish the costs of its existing operations so that it could use these as a 'benchmark' when assessing the viability of using the private sector. In addition, it has also been successful because of well tried and tested specifications, methods of measurement and conditions of contract, which all parties concerned have practised for many years.

Finally, whilst funding for road maintenance at Berkshire has been gradually reducing over the years, there is still in general an expectation of on-going work, in addition to the minimum guaranteed work, for the contractor. It is, in essence, a competitive environment which is conducive to encouraging the contractor to win the next contract and hence perform well, whilst providing him with some stability of assured income. If reasonably stable funding were not in place, it would be difficult to maintain this equilibrium.

3. SOMERSET COUNTY COUNCIL EXPERIENCE

3.1 Background

The county of Somerset is located in south west England and has a road network of approximately 6750km which covers both a rural and urban environment. The trunk roads in the county have historically been maintained by SCC on an agency basis for the national Highways Agency (HA). The remainder of the roads were historically maintained by SCC using their own IHW, except for the roads in the three urban centres of Taunton, Yeovil and Bridgwater which were maintained by these local District Councils². This case study addresses the maintenance of all roads in the county, except for the trunk roads owned by the HA, which is now carried out by WS Atkins under contract.

An estimated 460 staff were involved in managing the county roads. This involved all aspects of road management from transport planning and management through to maintenance works activities on site. The balance of staff, between those in roles traditionally considered 'white collar' (professional and management) and those in 'blue collar' (skilled tradesmen and labourers) was approximately even.

3.2 The pressure for change

The pressure for change appears to have been similar to that in many agencies in UK in recent years, which was a combination of both compulsory competitive tendering procedures (CCT) and the probability of reduced budgets for road maintenance in the future. Maintaining a IHW dedicated to performing only road maintenance activities (government owned agencies can only perform on contracts which include certain 'defined activities') in this environment suggested an inevitable reduction in the staffing requirements of the IHW. Thus whilst the initial motivation came from locally elected members of the council (hereinafter referred to as members), once staff (both white and blue collar) realised the bleak outlook they soon became sympathetic, and even positive, to the possibility of operating as a commercial, privately owned concern.

² SCC negotiated a change in this local arrangement so that all roads could be included in the externalisation proposal. In return for this change in the urban areas, district councils were promised a more direct involvement in the spending decisions of SCC and a direct relationship with the new contractor.

Possible fears of operating in a privatised, commercial environment were limited, since CCT had been in practice for some time so that the staff considered that they were already commercially competent and able to operate in a competitive manner. The issue then became one of the type of organisation which would carry out the road maintenance function in future, and what guarantees it might give to the local government employees whom it would expect to employ.

3.3 The change process

Once it was realised that change was inevitable, staff became involved in determining the change process and possible future models for the structure of the organisation. A series of working parties were set up to address the various aspects of change, and separate consultative groups for white and blue collar staff were established. These consultative groups were later combined to act as one body.

SCC did not only consider voluntary externalisation, and the possibilities of maintaining the work 'in house' or by use of a management buyout were also considered. However, the staff view was that it would be preferable to become part of an existing success story in the private sector, with a 'blue chip' operator, rather than trying to maintain their own independence. Amongst the blue collar staff, this view was strengthened by their possible suspicion that the white collar staff might not be as commercially aware as required to operate as a private company.

The final model which was proposed by the staff and accepted by the members was that of a combined service provider and network manager, who delivered the entire road maintenance function from planning and policy matters through to the maintenance activities on site. Many activities, which would traditionally be considered as part of the 'client' function, were included in the role of this combined service provider. The definition and separation of responsibility for these more typical client tasks was quite difficult when considering the new model. For example, transport planning activities include both policy issues, such as decisions on land use planning, and more functional issues, such as transport management and the decision on how to deal with this separation was difficult. Nevertheless, the new model which was agreed upon retained only a minimal (12 staff in total) in house capability in road management, with almost all the remainder of the 460 staff being transferred to the service provider.

Notwithstanding the above difficulties, the new model was seen as being advantageous by both members and existing staff. From a political perspective, members were keen to see the role of the blue and white collar staff combined within one organisation. From a pragmatic perspective, senior staff felt that this combined role would produce a less confrontational and more streamlined process in which various activities could be more quickly carried out. For example, implementing a traffic calming scheme adopting a traditional approach would require an initial design study by one organisation (manager role) and then implementation by another organisation (service provider) and the process would be slowed by the separation of these tasks. By combining the operation in one organisation, it was considered that a more efficient process of implementation would be achieved.

Having agreed the form of the new model for delivery of road maintenance in Somerset, the next step was to seek interest from the private sector and appoint a contractor, who would carry out this new combined service provider role. After initial advertisement, 91 organisations submitted expressions of interest. The innovative model which SCC had agreed upon was not immediately easy to sell to the interested organisations, who were more used to acting as either a service provider or a manager and found the idea of a combined role rather challenging.

Of the 91 organisations who submitted preliminary expressions of interest, 15 went forward to give more detailed presentations to SCC. From these interested parties, 5 were shortlisted to submit final proposals and presentations for carrying out the new role. The submissions were rated primarily for the economic advantage as perceived by SCC, in terms of the value for money which was anticipated. The value for money was assessed by comparison with 'benchmark' costs derived from the existing SCC operations. In addition, their past experience, profitability, and approach to staff and personnel matters when taking on staff from SCC (particularly in the light of expected future shrinkage in the road maintenance budget) were also considered.

Members stated that they had three key areas of interest in agreeing on the final appointee. These could be summarised in terms of three questions: What savings were available through this commercialisation? What interest did the organisation have in their staff? What services were they able to provide?

Staff were clearly concerned over how the new organisation would perform in the longer term, from the point of view of their own prospects and security. Clearly, they wanted to feel that the organisation was likely to be successful so that their services would be retained, and if redundancy did occur, they wanted to ensure that this would be on the most favourable terms. WS Atkins were the successful bidder, whose background was traditionally in engineering consultancy ('white collar'). It is interesting that blue collar staff still found the WS Atkins bid attractive, apparently because there was a feeling that this organisation had a good history in consulting and would, they felt, be keen for long term success in this area of expansion into service provision.

WS Atkins were interested in being appointed since this was an area of expansion for them and part of their long term business strategy. They were keen to be expanding from a traditional consulting role into that of a 'support services company' and saw this as an opportunity to fulfilling that objective. Their strategy to take on both the blue and white collar function evolved as the tendering process developed and was not a clearly thought out view from the outset. One alternative might have been to form a joint venture company with a contractor (a competing tenderer did this) but WS Atkins began to feel that this new model fitted their aims and would match more nearly the aspirations of SCC.

3.4 The new model

The fundamental basis of the new model is a partnering agreement between SCC and the service provider (WS Atkins). For a model which has seen such a significant transfer of the road maintenance function to the contractor, this is seen by all parties as being of paramount importance. This partnering process was established from the outset, by the use of workshops involving staff from each party held on a 4-6 weekly basis. These workshops have continued since WS Atkins were appointed in June 1996, and the product of the initial workshops was a Code of Practice which provides guidance for both parties. From time to time, sub-groups have been set up to address specific issues (for example, to try and reconcile the two different accounting systems used by SCC and WS Atkins). Open book accounting is practised, and benchmark figures are based on tender prices of the SCC IHW prior to its privatisation.

The form of contract is a modified version of the New Engineering Contract. It is a performance based, cost plus ceiling arrangement and the term of the contract is 5 years with a possible extension of 2 years with satisfactory performance. The scope of the contract is all revenue work, and capital works up to a value of £500,000. If a capital project exceeds this value, then WS Atkins have the opportunity to either supervise or design the works.

In such a contract, performance monitoring is clearly of key importance, and performance indicators are needed for comparisons of the network year on year. This is an area which continues to evolve at SCC as it has provided some of the most complex issues with which to deal. The original performance indicators were derived from recommendations for local authorities (Audit Commission, 1988) but these have subsequently been modified and expanded to suit the contract at SCC. There is currently a major review of maintenance policy to see how it addresses the needs of the public and this will probably affect the emphasis of the performance indicators. A major problem with such a contract is that if funding for maintenance changes, then the performance indicators will necessarily be affected, so that cost and performance monitoring are closely interlinked.

WS Atkins are paid monthly in accordance with the contract which identifies various payment mechanisms. The majority of the payment comes from the percentage 'plussage' on the cost tendered by WS Atkins which accounts for more than 80% of the contract value. There is also a management fee component and then various mechanisms for additional payment as described below. The basic payment is justified by a statement of fee which breaks down monthly activity in terms of material and staff expenditure and this is supported by the open book accounting procedures which are in place with the partnering agreement.

A Satisfactory Performance payment is justified, for which WS Atkins can claim an additional 1% of the value of work done, if they can demonstrate a satisfactory performance. This is justified by means of customer satisfaction surveys of the public, members and staff at SCC. Also, if the annual work completed falls below a specified value, the contractor is paid a Variation of Budget Amount, the value of which is included in the tender.

There is also an opportunity for additional payment through a scheme known as Process Reengineering. In this procedure, WS Atkins have underwritten £2.5m of savings over the five year term which they consider can be made to the operations. The parties agree on aspects of the operation which will be examined and redesigned, and if WS Atkins can demonstrate that this saving has been made, then their tendered 'plussage' is doubled for the remainder of the contract after the saving has been achieved. However, if they fail to reach this target, then they underwrite the contract value by the difference.

SCC preferred the cost plus type of contract since this should prevent the contractor being driven by the profit motive in delivering the quality of service to the client. However, whilst this reduces the risk for the contractor, it does limit the possibility for profit thereby possibly making the appointment less attractive. In particular, it also means that transparent cost monitoring becomes very important and systems to achieve adequate monitoring and measurement have been difficult to develop. Reconciliation of the systems used by SCC and WS Atkins has been troublesome and the subject of much attention which both parties feel has detracted somewhat from the success of the model. WS Atkins would like to see the method of payment for some parts of the project to be based on a schedule of rates or even fixed price and clearly the possibility of this depends on the perceived success of the monitoring of cost.

In addition to performance monitoring, SCC see their other major role as a client to act as a professional counterpoint to the contractor. With such a minimal in house road maintenance function remaining, they view this more qualitative aspect as being the major justification for their new role, since there are circumstances where being council employees gives them a greater access to and respect from various other parties. For example, the local police were more willing to release accident information to SCC than WS Atkins, since there was an element of suspicion of the motives of a private sector organisation. In addition, it is felt that there might be occasions where SCC staff will be more effective in relating to members than staff from a commercially operating company. Nevertheless, with such a devolution of the policy function to WS Atkins, an effective means of developing acceptable policies to both members and the public has been required. This has been carried out by the establishing of Policy Working Groups, which consist of representatives of both SCC staff, WS Atkins and members and are chaired by SCC personnel. For example, there is a maintenance policy group which sets maintenance policy and reviews it during the annual budgeting round. These working groups are well suited to the political aspirations of the current councillors, who are keen for local involvement and devolved responsibility in achieving democratic government.

Work is accomplished, for WS Atkins, on a project by project basis, and this helps them to achieve the efficient working relationship between their operations division (blue collar) and their management division (white collar), both of which operate separate accounts as different companies. This project based approach is particularly important for carrying out reactive work, which is becoming an increasing proportion of the overall budget, and which requires a short and efficient response time, in comparison to the longer term planned work. Reactive maintenance is controlled in

terms of cost by one works order per payment period (month), and this reduces the paperwork as well as encouraging the efficiencies possible due to the combination of the manager and service provider function

3.5 Conclusions

It is interesting to note that the model for transferring the road maintenance function into the private sector, in which both the white collar (broadly analogous to manager) and blue collar (broadly analogous to service provider) functions were combined in one organisation, differs to the approach that appears to have been more commonly adopted elsewhere, in which the functions of client, manager and service provider have been separated out in order to provide a more rigorous and focused approach to the various road maintenance activities. The efficiencies perceived by SCC in adopting this method are achieved through reducing the need for repetition in activities which occurs if the service provider and manager are from separate organisations - for example, road inspection might be carried out such that the manager might make a site inspection, and then the service provider make a repeat inspection to confirm the necessary works. In addition, response times, for reactive works in particular, can be streamlined by combining operations within one organisation.

Nevertheless, there is still a need for clear processes of work planning and ordering in order to ensure efficient operations and it will be interesting to see how these are maintained in the future as the new organisational structure becomes institutionalised. The reason that separation of the functions for road maintenance has often been recommended is that there may be a danger of maintenance becoming driven by the resources of an organisation rather than the needs of the network if the manager and service provider functions are combined within one organisation. However, the view of each party involved in the Somerset approach is that the policies set by the working groups counter against this, as well as feedback from the public itself and this emphasises the importance of the Policy Working Groups. In addition, WS Atkins consider that funding for the network is at such a level that any work carried out within the budget will probably be justified. The possible exception is for winter maintenance, which does require a minimum size of workforce to ensure the response times can be met, but the excess staffing for this is a risk borne by the contractor.

One means of the contractor being able to carry the above risk is through the possibility of carrying out alternative work, outside their road maintenance remit. This is the major advantage that a private sector organisation has over the earlier public sector IHW, which would only be able to carry out 'defined activities' as described earlier. These other contracts also provide an opportunity for WS Atkins to increase their profit margins, so that they are not solely reliant on the fixed cost plus profits under their contract with SCC. This is an area which WS Atkins wish to expand, both for their management and operations divisions, and this has been possible in the two years since commencing the appointment.

In terms of the change process itself, SCC consider that there is a limit to the amount of change that can be reasonably tolerated by staff at any one time, so that it needs to

be properly managed if the transfer is to be a success. This is also true of the private sector, who might be considering absorbing staff in any transfer of the maintenance function, and it is likely that different organisations will develop different responses to the tendering process based on their previous experience and ability. For example, whilst WS Atkins proposed taking on the whole operation, other tenderers at SCC considered combining their services with complimentary organisations to achieve the range of skills and operations required.

Particularly where such a significant transfer of the road function occurs as at SCC, it appears that mutual trust is fundamental to the success of the venture. This has been formalised in the partnering agreement which forms the basis for all operations there. An example of the trust required is in the transfer of staff from SCC, in which WS Atkins took on 'appropriate resources' to complete the first year programme of works, and the number of 'appropriate resources' was left to the judgement of SCC. A government organisations motive in these cases might lead them to be rather liberal in the estimate of these required resources. Whilst SCC had just prior to this reduced in size, and were already operating on a commercial basis, this represented a fair degree of trust in the judgement of SCC, since by taking on excessive resources WS Atkins would be liable to an overloaded TUPE cost through future redundancies.

The partnering arrangement in combination with the cost plus type of contract appears to enable both parties to be fairly flexible and cope with the changes that might be required in the contract as it proceeds. Particularly for reactive maintenance work, where flexibility is essential, this therefore appears to suit the model of combined service provider and manager. If the model was to be transferred elsewhere, then such a culture would need to be receptive to this need for partnering, and clearly the type of maintenance would also affect this decision. In addition, in order to encourage efficiency and to avoid the possibility of resource driven road maintenance, which might evolve in this combined service provider function (as discussed above), a fixed price performance based contract might be more appropriate. This would obviate the need for rigorous cost monitoring which is required in a cost plus type contract and which has been stated as one of the difficult issues in the situation at SCC. However, this would conversely require more rigorous performance monitoring, and would be less flexible if future budgets were to change, but would allow the client to focus more on performance of the network for the road user and less on the operational costs of the contractor.

With regard to cost, it is difficult to compare the situation before and after the developments at Somerset. However, experience from elsewhere suggests that it is not the use of the private sector in itself that achieves efficiencies, but the introduction of a competitive environment, and this has already been demonstrated by the CCT process as Somerset. It is noted that WS Atkins did increase their staff once they took over the operation, so that it might be argued that it in fact costs money to externalise road maintenance activities. In addition, it will be interesting to see how SCC manage with such a small client staff. Experience noted at BCC above has been a need to increase the client capacity, elsewhere, with a depleted client capacity, clients have often let separate 'audit' type contracts to gain independent advice on their operations and this would also clearly imply an increase in real costs.

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5. REFERENCES

ASSOCIATION OF COUNTY COUNCILS, ASSOCIATION OF DISTRICT COUNCILS, ASSOCIATION OF METROPOLITAN AUTHORITIES AND CONVENTION OF SCOTTISH LOCAL AUTHORITIES (1989) Highway Maintenance A Code of Good Practice Association of County Councils, London, UK

AUDIT COMMISSION (1988) Improving Highways Maintenance A Management Handbook HMSO, London, UK