CONSTRUCTING EXCELLENCE
in the built environment

demonstration project

Oxfordshire County Council
Highways Combined Maintenance Contract

Main Contractor:	Isis Accord Ltd
Client:	Environment and Economy Directorate, Oxfordshire County Council
Designers:	Babtie Group Ltd and Environment and Economy Directorate, Oxfordshire County Council
Professional advisor:	Babtie Group Ltd
Case Study Ref:	327
Project Number:	215
Publication date:	November 2008
Region:	South East
Sector:	Local government, Infrastructure
Project value:	£85 million
Project Timescales:	1 April 2000 to 31 March 2005
Themes:	Business Process, Partnering and Supply Chain management

The Oxfordshire County Council Highways Combined Maintenance Contract encompassed highways maintenance, highways new works (up to £100,000), ground maintenance and maintenance of the Council's vehicle fleet. It also included annual tender contracts for highways.

The contract, commencing in 2000, was for 5 years with annual extensions possible up to 2010, subject to performance measurements. The contract utilised partnering, and the contract itself was custom-built for this project, based on the ICE 5th Edition. The contract focused on the development of three main innovations which are outlined below:

- Best value through partnering
- Sustainability (sustainable use of materials)
- Joint planning

In 2000, Oxfordshire County Council set a target to save 10% a year for 5 years on this contract. By 2005 it had achieved £2m in savings per year, which is equivalent to delivering 10% more work for the same budget. Not only did Oxfordshire County Council achieve the desired savings on this contract, they also delivered a much larger programme than had been thought possible at the outset of the project. All of this was achieved due to the innovations employed on this project.

Best Value through Partnering

The requirements of Best Value for Local Government services and the aims of the Egan agenda coincide, and Oxfordshire County Council's contract with Isis Accord Ltd was designed with these requirements in mind. The engineering services consultant, Babtie were also committed to the philosophy of achievement through collaboration. Teams were established to review current practices and specific aspects of performance, with the aim of developing new methodologies which would have a wider applicability. The teams were tasked with looking at four different areas of activity, being: Administration and IT, project management, winter maintenance and product innovations, and from their work they developed a number of KPIs that were consistent with the Egan and Best Value agendas. A commitment to measurement is a core value of the Egan agenda and a key aspect of integration and collaborative working. Setting challenging targets for Key Performance Indicators encouraged the project team to continually drive continuous improvement.

One of the other key requirements of the contract was to develop arrangements for partnering that would yield measurable improvements in all aspects of service delivery. Methods of measuring the performance of each of the partners, and of the service as a whole were developed and these included 360º questionnaires, joint planning meetings, development of KPIs etc.

360º partnering performance measurements

The team developed questionnaires that covered five topics, being: construction, patching, signs and lines, village maintenance and verge maintenance. They agreed a format for the questionnaires (there were typically six aspects for each topic) and also developed guidance notes for marking, to ensure consistency. The questionnaire was attached to each invoice for work done, and once completed it was returned to the administration team for analysis, and then published. The process developed was a three-way analysis between the client, consultant and contractor. This innovation showed an early improvement in all measures. It also supplied data for the Highways Maintenance Benchmarking Club, and formed a firm basis to judge the performance of the consultant and contractor when the time came to extend the contract.

Partnering

The informal partnering initiative on the project was not backed by contractual terms, and, in hindsight, it was felt that having these in place would have benefitted the project. As such, the partnership was re-launched and re-branded under a single identity "Oxfordshire Highways" and this process included the development of contractual relationships and reworked performance measures. Following this, the three partnering organisations - Oxfordshire County Council, Isis Accord and Babtie - were treated as one for the purpose of development of innovations and dissemination of information, training, etc. All members of staff in the three organisations were supplied with a copy of the Partnering Charter, together with a message from Directors reinforcing their commitment to partnering and the change agenda. In addition to this, some co-location of the partners was introduced (where possible) which helped enormously in terms of building relationships within the partnership and also driving the project ahead, as it enabled the team to deliver a consistent message and gain consistent performance across the workforce. The team also moved to an open-book style of pricing of the Schedule of Rates and applied business process reviews to identify efficiencies in the work flow and work distribution. A new web-based ICT system for performance management was also adopted by all the partners (utilising the system operated by the contractor) and this was a vital resource for sharing information across the project.

Walk, talk and build

The purpose of this innovation was to minimise design and paperwork so that simple works could be done quickly. The procedure for this was simple. All the different parties would go to the site and mark out the scope of works, and the contractor then estimated the costs based on agreed rates. Provided the final cost was within 5% of the estimate, the payment was processed quickly. This process was very successful as it ensured that costs were fair and transparent, and also facilitated the prompt payment of monies due, helping to maintain good relationship across the partnership. This innovation also produced a saving of £360k towards the government's Gershon efficiency target, as more production was achieved without employing extra staff.

Sustainability (sustainable use of materials)

There were two main drivers behind the development of this innovation, being the fulfilment of the Council's 'green' agenda and, for the contractor, paying less landfill tax (which has a knock-on reduction in cost to the client). The contractor already had an established recycling facility, with areas set up for recycling green waste and arisings from highway works. The main activities were:

- Screening and crushing unbound sub base to convert it to sub base
- Recycling green and gully waste to make topsoil available for use in schools, roadworks and for sale
- Focus on recycling materials within projects

The targets the team set were to achieve a level of 20% reuse in Year 1 (the level at the time stood at 15%). The product innovations team had the task of designing specifications and standards which would increase the use of recycled materials. They also identified other possibilities for recycling which included: developing appropriate specifications, maximising sustainability through the material supply chain and minimising construction waste. One of the main impacts of the sustainability targets set on this project was the construction of a new recycling site for gully waste, and a 90% reduction in tonnage of waste to landfill over two years. Waste to tip figures from highway maintenance projects show this radical improvement:

- 2001 = 2,500 tonnes
- 2002 = 600 tonnes
- 2003 = 200 tonnes

The project also had Key Performance Indicators (KPIs) in place to measure the materials passed through recycling centres and dumped in landfill sites – enabling them to monitor progress and ensure continuous improvement.

One of the main challenges the team faced in respect of achieving their sustainability targets was developing an understanding of all of the relevant Environment Agency rules and regulations. The main contractor Isis Accord, had an in-house centre of expertise on environmental matters, and they therefore provided huge assistance in understanding and developing solutions to the Environment Agency's rules. Dissemination of knowledge to encourage the take up of recycling was another challenge. However, finding a 'champion' for the recycling initiative led to the task being successfully assigned to a specific project team. Following this success of this initiative, Oxfordshire County Council plan to build another recycling centre to boost capacity and reduce transport distances, making recycling more economically attractive across the whole of the county.

Joint Planning

The contract the partners employed on this project provided an opportunity to involve the Client, Consultant and Constructor in the project teams from the outset. This enabled them to facilitate better use of resources, improve cost and time predictability, and achieve economies through improved buildability. Joint planning meetings were held on a montly basis, enabling all the different partners to get together to plan up-coming works. The objective of these meetings was to enable the team to plan ahead, even out the workflow and avoid a last minute rush. By integrating certain processes they were able to improve communications and reduce paperwork across the project, through the effective use of IT. They utilised the joint planning web-based ICT system 'Primavera P3e' to give all the partners joint access to the master programme which contained details of all the planned work. Existing project management guidance was also developed to incorporate the participation of the constructor and the supply chain, and a working group (covering a broad spectrum of staff) was established to consider the methodologies and IT requirements. The joint planning innovation proved to be a very effective way of achieving better team integration and there was a noticeable improvement in the flow of work and consistency of performance, measured by cost and time.

Lessons Learnt

- Good communications are paramount - everyone needs to be involved in giving feedback in order to make continuous improvements
- Suitable contractual terms are needed to encourage continuous improvement
- Team leaders must be committed to the ideals of partnering, broadcasting results and encouraging critical thought about how the partnership is progressing
- Make sure you can measure the effects of what you are doing
- You need knowledgeable staff in order to understand and comply with the environmental legislation and promote recycling

Constructing Excellence is committed to reducing its carbon impact.
© Constructing Excellence. Requests to reproduce any part of this case study should be sent to Constructing Excellence. Published November 2008.

CONSTRUCTING EXCELLENCE
in the built environment

Constructing Excellence
in the Built Environment
Warwick House,
25 Buckingham Palace Road,
London SW1W 0PP

T 0845 605 5556 **E** helpdesk@constructingexcellence.org.uk
W www.constructingexcellence.org.uk

OXFORDSHIRE COUNTY COUNCIL
www.oxfordshire.gov.uk