



CONSTRUCTION

Nottinghamshire County Council and Robert Woodhead Ltd: A Passion for Excellence

Summary

Nottinghamshire based Small to Medium Enterprise (SME) building contractor, Robert Woodhead Ltd, formed a partnership with Nottinghamshire County Council to manage a programme of school extensions, refurbishment, repair/maintenance and Disability Discrimination Act related construction work.

The projects allocated complemented the size of the partnership, and allowed all of the parties to utilise new working methods such as lean construction principles, buffered programmes, prefabricated materials, standard specifications and details, value engineering and waste reduction.

To help manage the partnership and measure progress the partnership focussed on the Egan Report's five key drivers for change, as well as specific Key Performance Indicators (KPIs) used by Nottinghamshire County Council.

Quote

“The partnership between Nottinghamshire County Council and Robert Woodhead Ltd has been a catalyst for change. The new working processes adopted by both partners have not only improved efficiency but also delivered excellent results for our customers.”

Lesley Bradley,
Head of Service *buildingDIRECT* (Property)
Resources
Nottinghamshire County Council

Improvement through efficiency



Centre of
Excellence

East Midlands

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Project background

Woodhead entered into this Partnering Agreement with the intention to create a team approach that would satisfy Nottinghamshire County Council's objectives. The partners sought to ensure that safety and quality were the key deliverables of the partnership.

The initial four year Partnering Agreement required Woodhead to meet specific Key Performance Indicators (KPI's) at six monthly intervals in order to obtain further six month extensions.

Woodhead met the KPI targets, and one of the key contributing factors was the successful adoption of lean construction methods, which improved turnaround times and reduced waste. The introduction of a prefabricated structural insulated panel system significantly reduced site construction times, and increased the thermal performance qualities of the buildings without adversely affecting the costs.

The two projects where Woodhead and *buildingDIRECT* (NCC's direct labour organisation) worked collaboratively on site assisted in a desired transfer of business expertise. This helped *buildingDIRECT* to adopt a more commercial approach to their operations. This will impact on all of their future maintenance and construction works, provide value for money and be of benefit to their public service clients.

Drivers for improvement

The Children's Centres programme significantly benefited from the partnership with Woodhead, who made resources available to the project design team from the very start.

The normal tendering processes - which were employed prior to the Woodhead Partnership - would have denied this valuable source of expertise and advice would not have previously been available until a contract had been placed, by which time any amendments to designs would have caused delays to the programme.

Woodhead's early involvement in projects brought their construction and planning expertise to bear, thus reducing abortive work by designing out problems and assisting in overcoming issues with regard to access, buildability, and security. Their programming employed the principles of lean construction by using buffered programmes and earliest start dates.

Woodhead's supply chain was involved, and assisted in a value engineering exercise on the largest project. This helped to bring the project back within budget, without this assistance the project would have been severely delayed.

Woodhead's help actually allowed the project to start earlier, even though some delayed design decisions were linked to EU funding requirements. None of this would have been possible with conventional tendering processes.

With Woodhead being an SME they were ideally suited to the scale of the projects, Woodhead also employed most of their own labour force which meant that there were few key sub-contractors and control was largely in their own hands.

The first two years of the partnership were used to develop the five key drivers for change:

- committed leadership
- customer focus
- team working ethos
- a quality driven agenda
- and; a commitment to people.

The partnership had been used on over 40 small projects, including a nine project Nursery Programme, numerous Disability Discrimination Act projects and numerous day-to-day maintenance works before work started on the Children's Centres. This helped to create the trust and openness which greatly assisted the Children's Centres construction programme.

Children's Centre Programme Achievements

The outline expectations were for Woodhead to deliver nine Children's Centres at a cost of £3.4m by the end of March 2006. In total, ten were delivered by the end of March and a further four followed shortly after, for a total cost of £5m. This included two Sure Start projects which would have lost Sure Start funding had it not been for Woodhead's commitment to achieving their completion.

Additional funds were obtained - with the significant assistance of Woodhead - from a variety of sources which ensured that projects were not compromised for lack of funding.

The fourteen projects - as demanded by demographics and local needs - varied in size from a small office conversion of 24m² to the extension and refurbishment of a listed building in a conservation area, total size 681m². In total 3,378m² of building were either built or refurbished.

The projects reused redundant or under-utilised buildings and space, created more child care spaces than the budgeted number, improved existing facilities, attracted additional funds from various sources and achieved 5% savings against initial base costs. There were no claims, no retentions, and no liquidated damages.



Swan Lane Children's Centre

Critical success factors and lessons learned

The success of the Woodhead projects can be compared locally with previous partnering projects which involved Nottinghamshire, on average the other projects were 14% over budget and 17% over time. On a national basis few authorities have achieved better results from partnering than Nottinghamshire.

Much of the success can be attributed to using a construction partner with the ability to document and agree a contract quicker than traditional partners, who use traditional procurement methods.

The use of buffered programmes that employed lean construction principles assisted in bringing project start and completion times forward. The use of structural insulated panels provided an external envelope at a much earlier stage, this allowed more work to be executed in the dry, and avoided delays associated with wet trades.

Woodhead worked within the project teams to bring their projects within budget, without compromising the quality of the buildings. This was achieved through:

- value engineering,
- avoiding waste,
- good use of supply chain M&E subcontractors,
- working with the architects to achieve a more efficient and effective solution,
- by avoiding unnecessary detailing,
- and; utilising site know-how.

In terms of cost, the cost per m² used for the initial budget estimates was £1,260/m² base date 4Q2004, which Government Office East Midlands considered to be low. None of the feasibility costs submitted for approval were questioned or rejected. The average outturn cost for the extensions and new build areas of the projects constructed by Woodhead was £1,200/m², a 5% reduction.

In some cases these projects included extra costs, including stone cladding to meet conservation requirements, a high incidence of toilet facilities, working within occupied structures and the provision of alarm/access systems in small buildings which have high costs/m² for the service regardless of size, such that a £5,000 alarm/access system would service a building several times larger.

Within many of the projects value for money could be seen by bringing back into use existing under utilised accommodation, or by improving existing facilities. These improved facilities included heating installations, kitchen and toilet facilities and improved disabled access.

As Woodhead were working on site the heads of some establishments took the opportunity to use their own financial resources to have additional items of work executed at the same time. This would not normally have happened and would have cost significantly more had they been separate stand alone projects.

In some cases the Children's Centre project gave benefit to the centre without any contribution of funds and without having to pay for any upheaval costs, including temporary accommodation for the relocation of personnel.

There was collaboration between projects, with surplus spoil from one site being used to raise site works levels at another project. This is an ideal which rarely happens on projects due to administration or time issues.

Exceeding Contract Expectations

An expectation in a programme of fourteen projects is that there will be at least one claim. This was not the case and significant savings of 3% were passed on to the Client through the Partnering approach, which in another contractual arrangement would have been retained by the contractor.

The open book approach to contracting can only really work in an environment of trust, this trust has to come from the top of both of the organisations. The environment of trust permits the project team to work together to exceed expectations.

The principal client, Di Kingaby, Nottinghamshire County Council's Children's Centres Development Manager was delighted with the outcome of the projects, and her scores of 10 out of 10 for each aspect of client satisfaction reflect the manner in which Woodhead approached the programme and the partnership agreement in general.

Di was involved in all seventeen projects from inception and could directly compare the performance of Woodhead with a major national contractor, who under performed on both time and budget due to a failure on their part to enter into the spirit of partnering.

“My marks genuinely reflect the achievement of Woodhead, which with a commitment to cultural change, the adoption of lean construction principles, and the achievement of KPI's, proved that with the right construction partner a client's expectations can be achieved and bettered.”

Di Kingaby,
Nottinghamshire County Council
Children's Centres Development Manager

The programme met all of its objectives and also delivered added value and some 'wow' factors. The added values were completions before programme, enhancing existing services, reusing redundant buildings, lack of claims and the contribution Woodhead made regionally by delivering training sessions on good practice and programme delivery to other local authorities. The 'wow' factors concerned design elements - the North Leighton envelope, the entrance to Swan Lane, the KPI's on Oaktree Lane, the matching extension at Pleasley Landmark, and the improved operation of Sandy Bank Family Centre.

Partners involved

Robert Woodhead Ltd
Nottinghamshire County Council



Entrance to Swan Lane Children's Centre

Contact

Lesley Bradley

Manager
NCC *buildingDIRECT*
tel: 0115 956 7777
email: lesley.bradley@nottsc.gov.uk

Derek McGrath

Project Manager
Robert Woodhead Ltd
tel: 01623 871 515
email: derekm@robert-woodhead.co.uk

Heather Parker

EMCE/EMIP Programme Manager
East Midlands Centre of Excellence
tel: 0115 977 3492
email: heather.parker@nottsc.gov.uk