

Wider application

Performance-based contracts are unfamiliar and more demanding for contractors and this may deter them from tendering or lead to higher pricing. On the other hand, method-based contracts are heavily reliant on detailed instructions and rigorous supervision of the work and this is costly and time consuming for the client. Implementing method-based contracts can be a very mechanical process and planting performance can be disappointing.

For the particular project described in this case study, the contract contained both performance-and method-based elements. If this hybrid approach was adopted more widely it would help to encourage greater attention to outcomes rather than processes and might also stimulate the development of a more skills-orientated workforce in the arboricultural and landscaping sectors.

Further information

National Urban Forestry Unit

This leaflet is one of a series produced by the National Urban Forestry Unit. NUFU is a charitable trust which provides a national focus for the exchange of information and good practice in urban forestry. If you would like further information on other case studies, or if you have examples of good practice to share, please contact:

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Further reading

Kiser, B (2000) *Trees and aftercare, a practical handbook*. BTCV, Didcot

National Urban Forestry Unit (undated) *Performance-based contract system*. Unpublished report. National Urban Forestry Unit, Wolverhampton

National Urban Forestry Unit (2001) *Designing urban woodland: a guide*. National Urban Forestry Unit, Wolverhampton

National Urban Forestry Unit (2001) *Managing urban woodland: a guide*. National Urban Forestry Unit, Wolverhampton

National Urban Forestry Unit (2001) *Engaging communities with urban forestry: a guide*. National Urban Forestry Unit, Wolverhampton

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PRODUCED BY



Urban Forestry in Practice

Woodland planting using a performance-based contract



CASE STUDY 53

Woodland planting using a performance-based contract

Introduction

Most tree and woodland planting contracts are “method” based. In this traditional approach all the operations are identified and timetabled. However, this system does not necessarily ensure that the planted material grows satisfactorily. “Payment by results” is common in other industries, and it would seem to make good sense to link tree planting performance more directly to the contract specification.

Specific example

Project name and location

PARKFIELDS HIGH SCHOOL, WOLVERHAMPTON, West Midlands, UK
Grid reference: SO 923 961

Project partners

- National Urban Forestry Unit
- Parkfields High School
- Millennium Commission (project funding)
- Fountain Forestry (now Fountains plc - project contractor)

Project objectives

- To test the effectiveness of a new performance-based tree planting contract
- To enhance the grounds of the school by providing shelter, educational and aesthetic benefits

Project description

One hectare of new woodland was planted in 1996/97, by a contractor working to a tendered performance-based contract. The planting included a high proportion of hardy pioneer species such as silver birch and the nitrogen-fixing common alder. The chosen site did not suffer from severe contamination. Had this been the case, then a performance specification would have been more difficult to apply.

Close-up of Parkfields planting. Contractor's choice of techniques produced excellent results at no extra cost



Three growing seasons. Consistent and significant landscape impact.

The performance-based contract comprised the following elements:

- Specified plant performance standards included minimal levels of survival and average extension growth, with at least 75% of trees needing to meet their target figure for extension growth in years two and three
- Tree species were classified as “vigorous”, “mid vigorous” or “slow growing”. Areas of the site were classified according to their ability to support tree growth as good, medium or poor
- Provision for the effects of extreme weather on the survival and growth rate of newly planted stock
- Performance indicators were also provided for effective weed control and for “beating up” in order to maintain a 100% stocking rate. A contingency sum was included in the Bill of Quantities to pay for the replacement of plants lost to vandalism or damaged by animals
- Supporting documentation provided non-prescriptive recommendations for other important aspects of the work such as soil improvement, pre-planting weed control and watering
- Those operations considered essential for successful tree establishment, such as subsoil ripping, and protection against livestock damage were specified in the contract by means of method-based guidance rather than prescriptive specification. Any failure to meet the performance indicators for ripping would have required the operation to be repeated
- At practical completion 30% of the value of the completed work was retained by the client for use as a performance payment, to be released in three equal annual instalments subject to satisfactory performance of the new woodland through the establishment period
- Contractors were able to use their discretion in deciding how to meet the performance criteria and they tendered accordingly. The contract was awarded on the basis of their “method statement” as well as the tendered price

Results

The contractors who were invited to tender all expressed serious reservations about the new form of contract:

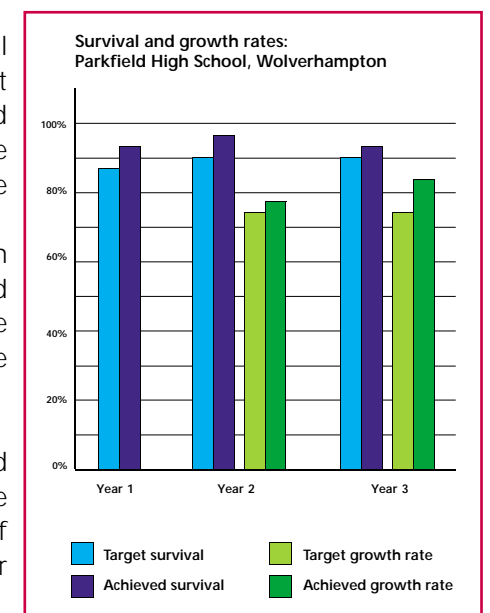
Pricing

- Two companies quoted at double the rate they charged for similar work carried out under a normal contract, and clearly did not want to win the contract
- The successful tenderer completed the work satisfactorily at a very similar price to that normally charged for equivalent work carried out under “normal” contractual conditions (£6,300 per ha in 1996)

Performance

- The contract produced very good establishment and survival rates. 93% of the planting survived at the end of the first planting season, and losses were replaced. Survival after two and three years was 97% and 96% respectively. Some minor tree replacement (‘beating up’) was also required at the end of the third season
- The trees also exceeded the 75% target figure for extension growth in years two and three. (The actual figures were 76% and 83% respectively.) The contractor was therefore awarded all the phased payments under the performance elements of the contract

Despite initial concerns from the contractor, the contract worked well. There was more dialogue than normal and greater initiative was shown by the contractor in terms of the type and timing of operations. The planting now provides an educational resource for the school.



Survival and growth rates achieved using performance specification