REPORT BY THE
COMPTROLLER AND
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Highways Agency

Contracting for Highways Maintenance

Summary

1 England's network of 36,000 lane kilometres of motorways and trunk roads is a key component in the strategic transport network, heavily used for business and leisure travel and for the transport of freight. In 2007, it supported 138 billion vehicle kilometres of travel, around 31 per cent of total road travel. Maintaining it effectively and efficiently in a safe and serviceable condition is essential.

2 The Highways Agency's Network Operations Directorate maintains this network, spending £926 million in 2008-09. Maintenance work is largely carried out through Managing Agent Contractor (MAC) contracts, in each of the Agency's 14 geographic Areas (Appendix 1), whereby a single contractor is responsible for the design and delivery of maintenance work over four or five years with the option to extend up to seven years. We examine how well the Agency has designed and managed these contracts, and whether they are providing value for money for taxpayers and road users. Our methodology is described in Appendix 2.

Key Findings

3 **The MAC contract form largely follows best practice and contains the mechanisms necessary to allow the Agency to manage risks and deliver efficiencies over time**. These include: three different payment mechanisms (lump sum, target pricing and cost reimbursable) so that the Agency can allocate risks appropriately between itself and the contractor; largely output based specifications; good visibility of costs; and by limiting price increases to the Retail Price Index it provides some protection against traditionally higher inflation in the road maintenance sector.

4 **Since the introduction of the contract in 2001, there have been some improvements in quality and in delivery to budget**.

- Based on a sample of planned maintenance schemes:
  - the average overspend compared with budget has fallen from 27 per cent in 2002 to 12 per cent. In some Areas however, the contractor consistently undershoots the target costs, which suggests that they may not be sufficiently challenging;
  - fifty eight per cent of planned maintenance schemes are now delivered within the planned number of days.
- Road users' overall satisfaction with the Agency has increased, but more users are reporting delays, and around 40 per cent of these are attributing those delays to roadworks. More than half of those encountering lane closures at roadworks reported no obvious work being carried out at the time.

- The overall condition of the road network has remained the same.
- Journey time reliability has improved, and the timing suggests Agency interventions have contributed to this improvement.
- Over the last five years safety at roadworks for both road users and road workers has not changed much.

5 **But costs have increased**. The cost of routine maintenance has risen by 11 per cent above inflation between 2002-03 and 2008-09 even though bids in contractors' tenders were lower. This is in part due to changes in the Agency's specification, for example requiring faster response times to incidents on the road network. Expenditure on planned maintenance has increased by 5.5 per cent above general price inflation in the same period, with spending on planned maintenance of roads per square metre resurfaced rising by 70 per cent over the same period. This figure includes spending on items such as barriers, lighting and drainage which do not yield a resurfaced area and the Agency says this type of spending has represented an increasing proportion of the total. The Agency's own estimate of spending on resurfacing per square metre treated indicates an increase of 17 per cent above general price inflation between 2004-05 and 2008-09 but we have not been able to fully validate this estimate. The true increase between 2002-03 and 2008-09 is likely to lie somewhere between the two figures.

6 **There are shortcomings in the Agency's management of MAC contracts**. The Agency's quality control mechanisms have focused on checking compliance with contract requirements, rather than on the costs or quality of the work done. The Agency is only now beginning to exploit the good visibility of costs within the contracts, for example, to establish the unit costs of items within jobs so that it can challenge contractors' costings and establish benchmarks for continuous improvement. We found considerable variations between Areas in the unit costs of surfacing, white lining and traffic management. The average costs of resurfacing jobs ranged from £17 to £36 per square metre, and the cost of thin surfacing materials ranged from £63 to £101 per tonne (September 2008 prices). The Agency has not yet performed a robust evaluation of the costs and benefits of introducing MAC contracts.

7 **The contracts could be improved further**. There is a risk that contractors can move costs from activities which are paid for by lump sums, where they bear the risk of cost increases, to cost reimbursable activities where the Agency bears the risk. Payments on a cost reimbursable basis have risen sharply since contracts were awarded.

8 **The Agency's Directorate responsible for maintenance had only four quantity surveyors at the time of our review and has lost over 50 engineering staff in recent years, despite the importance of their skills in managing MAC contracts**. It needs staff with strong client skills in engineering and commercial management to make proper use of the mechanisms available to manage risks and costs, to challenge the contractors' specifications, and manage their performance.

9 The Agency's principal objective in value for money terms is to maintain the network in a safe and serviceable condition at minimum cost but it does not pursue minimum whole life cost as strongly as it might.

- It has a well developed process for identifying projects with the lowest whole life costs for road pavement schemes, but only applies it to schemes over £100,000 (£250,000 from 2009-10). In the schemes we examined where it was applied, the option chosen was often not that with the lowest whole life cost.
- The whole life cost approach is not so well developed for other planned maintenance work such as safety fencing, drainage, embankments or structures, where the Agency has gaps in the information about the condition and/or deterioration paths of some of these assets. It is developing an Integrated Asset Management System to provide this information.
- There is no direct incentive for contractors to minimise whole life costs.

10 The contract form is mature, well understood by the market and has attracted strong competition, but effective price competition is becoming more limited as fewer bidders pass the Agency's quality test, and the contracts offer the Agency limited flexibility in procurement options once let. The Agency has used MAC contracts for eight years, and has refined them over that time. Five bids were received for each of the past 11 competitions. But the supplier base is starting to get smaller and companies are finding it more difficult to pass the Agency's quality test, with more than half the bids failing that test in the latest round. The contract does not normally allow the Agency to put planned maintenance jobs below £500,000 out to tender, or award larger jobs to the MAC without competition.

Conclusion on value for money

11 The MAC contracts offer the potential to secure value for money by providing visibility of costs and the ability to allocate risk appropriately, and since their introduction there has been greater certainty over delivery of maintenance schemes within budgets, and improvements in journey time reliability. But costs have increased, for both routine and planned maintenance. The Agency has few quantity surveyors and has lost engineers whose skills are needed for effective contract management. It still lacks some of the information on its assets necessary to minimise whole life costs. Going forward, the prospect of a potentially smaller supplier base presents an increased risk to value for money. As currently operated, the Agency is not achieving the best value for money that it could from these contracts.

Recommendations

Letting MAC contracts

12 The Highways Agency should:

- align the incentives in the MAC contracts with its principal value for money objective of minimising the whole life cost of maintaining the network in safe and serviceable condition;
- review the standards documents underpinning MAC contracts to ensure they are outcome based as far as possible;
- set a cap on the fee rate paid for subcontracted work;
- engage sufficiently with potential suppliers so that they fully understand its quality requirements, and so that those requirements do not deter capable and competent providers from bidding; and
- build greater procurement flexibility into its contracts so that it can fully exploit the efficiency potential of MACs without surrendering its ability to go to the market directly, and without choking off the supply of work to contractors outside the MAC community who help maintain price competition.

Managing MAC contracts

13 The Highways Agency should:

- use the cost information it already holds to benchmark unit costs of planned maintenance;
- conduct business reviews of contracts to ascertain that costs are being properly charged, compare cost and payment profiles with those expected at contract award, and consider action where there is significant divergence from client expectations;
- provide Area staff with sufficient visibility of payments through the different strands of MAC contracts so that they can manage those contracts effectively;
- strengthen the engineering, quantity surveying and commercial skills in its Area teams;
- benchmark performance between Areas; and look at the scope for benchmarking with Scotland and Wales, and the road maintenance industry more generally;

- rebalance its quality assurance of MAC contractors' work towards outcomes and performance relative to external benchmarks rather than just processes;
- adopt a more active role in the design of the planned maintenance programme, through its own whole life cost analysis;
- give a higher priority to develop and implement its Integrated Asset Management System and take steps to extend whole life costing methods to its non-pavement network assets;
- keep up to date the data on costs and the durability of different treatments used in its whole life cost models; and
- challenge the quantities of materials and costs more generally in target cost schemes for reasonableness.

Outputs

14 The Highways Agency should check modelled journey delays for roadworks against actual delays when those roadworks are in place, and adjust its model accordingly, so that the contribution of maintenance to journey time reliability can be more accurately gauged.