

Types of Maintenance on the Trunk Roads

Background

In the four overseeing countries, roads are called various things. In Scotland, a road is called a road; while in England it is called a highway. This terminology derives from the Acts of Parliament under which the overseeing organisations operate. For the purposes of this paper and the associated paper of “Categories Contained in the Road Network” the terms are interchangeable.

In the UK Central Government sector road maintenance is driven by operations. The length, size and component mix of roads has been developed in a way that maximises maintenance efficiencies as well as taking into account materiality levels. The maintenance contracts in place for our road surface, structures, communications and land are not only efficient, but they ensure continued economic benefit of every component. Efficiency, safety and continued economic benefit are key deliverables in every maintenance contract and therefore adoption of IAS16 has taken these aims into account.

In Scotland the maintenance arrangements on the Trunk road network are shown below. This note does not cover the work that is done to design and build larger (over £5M) improvement schemes. The responsibilities of the Overseeing Authorities are similar, however, the way each Authority carries out these responsibilities can be quite different. In Scotland, apart from works contracts and minor improvement schemes, the Operating Companies are responsible for not only monitoring and managing the trunk road, they are also responsible for undertaking some of the maintenance work on the network. . In Wales, the Trunk Road Authority has split the country into three - South, Mid and North – and three agents (Local Authority based) look after the maintenance work in this area. Northern Ireland diverges most from this model. Northern Ireland Roads Service has an internal contractor business unit and an internal consultant business unit, which undertake some of the functions of an Operating Company.

Transport Scotland employs an organisation called the Performance Audit Group (PAG) to oversee the work that is done by the Operating Companies. PAG also act as the “Engineer” in giving their opinion of the amount of expenditure that Transport Scotland is due to pay to the Operating Companies. The PAG audit the operation of the Operating Companies on a regular basis on three basic subject areas. These are the financial competence of operations, the operation of their quality procedures and finally the technical merit of the operations. In Wales, the Agents are working towards QA accreditation and will thus be auditing on their compliance with their procedures. Development of a regime of auditing the Agents is taking place.

Scotland is split into 6 areas of Trunk road. These are 2 areas covered by Design, Build, Finance and Operate contracts (DBFO's) (A74 (M) south of Abingdon and the M77), the rest of the roads are then split geographically North East/ North West, South East / South West. The Scottish ministers have employed the private sector to manage and maintain the roads in their area based on assessment techniques from the Design Manual for Roads and Bridges (DMRB), national specifications also included in the DMRB, and a range of client specific requirements. The other countries are split to a greater or lesser extent depending on the size of the territory.

The four overseeing organisations control the DMRB with the Technical Project Board considering changes that should be made from time to time, with the Chief Road or Bridges Engineer signing up to the changes made. This document operates as a

Statement of Recommended Practice; any divergence from the standard can be made although organisations need to be extremely careful in so doing.

DBFO contracts

DBFO contracts are special contracts that have been negotiated in which the contractor is required to Design the scheme, Build his design, Finance the scheme and Operate it typically for 30 years. The Authorities are not involved in the day-to-day management of the DBFO companies; however they do have oversight into the operation of the DBFO company through the appointed Engineer to the contract; however the contractor is required to return the asset he created to the Authorities with a pre-determined average minimum residual life

Operating Company works.

The management and maintenance that the Operating Companies do can be considered under the following 5 headings:

Analysis

Survey information – High speed Road Monitor, Deflectograph and SCRIM plus regular detailed inspections of the trunk road assets is used to identify locations on the network where intervention is appropriate.

Management of Cyclic and Routine Maintenance

Routine and Cyclic maintenance are performed in the most part to ensure safety of those who travel on the Trunk Road network. Routine maintenance is considered in two parts, Category one – that is defects that are dangerous and Category two which can be repaired as part of planned maintenance. Cyclic maintenance is programmed to happen during the year to ensure that the road is kept in a safe and serviceable condition,

Cyclic Maintenance

The Maintenance Contracts require the companies to do a range of Cyclic Maintenance activities on the Trunk Road Network. These operations are covered by lump sums, and range from inspections, customer service obligations to grass cutting operations, winter maintenance and bulk lamp changes as examples.

Routine Maintenance

For routine maintenance as long as the cost of the operation is typically less than £250,000, and has the Authorities agreement the company can proceed with the operation and the Authority is charged using the rates and prices within the contracts. The £250,000 threshold allows for a large number of operations to be undertaken by the companies including patching works, safety fence repairs, upgrading and improvement, drainage works, road marking replacements, etc.

Works contracts

Where the cost of operations is expected to be greater than £250K and less than £5M, the company can and is expected to design the operations to rectify the defect or problem. The company themselves are not allowed to do the work to rectify the defect or

problem. This work will be put out to tender and a winning bidder will perform the work to rectify the defect or problem. The Operating Company that did the design will now supervise the completion of the work done by the winning bidder and will act as the Engineer under the conditions of contract.

These works will in some instances do more than replace like for like. The opportunity may be taken to enhance the infrastructure (e.g. replace road signs, localised widening where necessary, improve drainage etc.)