

Executive Summary

A Transport Asset Management Plan (TAMP) is a long term plan that describes how an organisation intends to manage its transport infrastructure asset base in order to deliver the agreed levels of service and performance targets in the most cost effective way.

To formulate long term strategies for managing asset types, first generation lifecycle plans for carriageways, footways, structures and lighting have been developed.

These will shortly be supported and supplemented by investment models for carriageways and footways, which are in the process of development. These models will support a “what if” analysis of funding levels and maintenance strategies, and will be used to assess the impact of a wide range of funding levels on asset performance and maintenance backlog, and to justify the funding required to deliver the agreed levels of service.

The resultant outcome should lead to a strategy for minimising whole life costs and consequently identifying and evaluating cash-releasing efficiency savings within the 2007 Comprehensive Spending Review (CSR 07) period.

Background and Context

The CIPFA report on Local Authority Transport Infrastructure Assets, June 2008, concluded that comprehensive transport asset management has the potential to deliver significant value for money benefits and improvements in the services delivered to users. An asset management based approach should help authorities to take better informed decisions about spending priorities, by demonstrating the long term consequences of particular levels of investment, and help them to maximise the output that can be achieved from the chosen level of expenditure.

Westminster City Council has set levels of service for its transportation service, which match and are achievable within the funding levels approved by the authority. The Framework for Highway Asset Management published by CSS/TAG describes levels of service as a statement of the performance of the asset in terms that the customer can understand. Levels of service typically cover condition, availability, capacity, amenity, safety, environmental impact and social equity.

Once levels of service have been set, lifecycle plans of the transport assets can be developed. A lifecycle plan is a long term strategy for managing an asset type, i.e. carriageways, footways, bridges and other highway structures, public lighting, street furniture, etc., to deliver the required levels of service whilst minimising whole life costs. They are a core component of asset management planning, as they identify options for future performance and should result in optimal solutions for minimising whole life costs.

Lifecycle plans should take account of levels of service, anticipated deterioration mechanisms and rates of deterioration, component service lives, maintenance techniques and costs, influence of maintenance on future deterioration rates and risks to safety and service loss.

Having identified work options and costs within a lifecycle plan, an appraisal should then be undertaken to identify the optimal solution. Should a different strategy to that currently in operation, be recommended, it may then possible to identify and evaluate efficiencies which are cash releasing.

Prospective Efficiencies

The Westminster lifecycle plans for carriageways and footways comprise the following elements:

- Inspection and testing
- Routine maintenance
- Reactive maintenance
- Programmed maintenance
- Programmed improvements.

Over the lifetime of the TAMP, it is proposed to seek efficiencies through the appraisal of varying levels of capital investment with the consequential impact on maintenance activities, together with improvements in the risk management strategy of highway defects by reduction in the overall numbers of defects to be remedied and increasing the percentage of category 2 defects compared to category 1 defects.

It is predicted that such an investment strategy, taking account of better management strategies, will lead to minimising whole life costs, thereby resulting in cash releasing efficiencies. At this stage, however, it is not possible to quantify such efficiencies.

Issues Addressed

The issues currently being addressed within the carriageway and footway lifecycle plans of the TAMP are:

- Forward Investment strategy
- Risk management strategy for highway defects

Measurement and Valuation

In respect of the investment strategy, forecasting models are under development that take into consideration predicted asset deterioration for carriageways and footways. With the absence of historical data and lack of recommended literary sources, the first generation models are being based on the wealth of expert engineer knowledge on Westminster's highway network.

It will be an iterative process, and the models will incorporate varying levels of capital investment, together with projected revenue spends over each year of the TAMP. Maintenance defects will be split into category 1 and 2 and identified by type (i.e. wear & tear, statutory undertakers, tree roots, vehicle overruns and street cleansing activities). Programmed maintenance funding will affect levels of wear & tear defects and strengthening programme funding will affect levels of vehicle overrun defects and levels of street cleansing activity defects.

Data on these types of defect is now being collected, and future generation models will be able to encapsulate this information and become more statistically accurate.

Contact for further information

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