

ANNEX 11:

Transport Asset Management Plan

The transport networks are provided for the benefit of the public and are most highly valued physical assets, in both financial and community terms. Keeping them in good condition is crucial to both their users and the community and to the delivery of the Local Transport Plan strategies and programmes.

The major parts of the transport network are the publicly owned highway assets such as the carriageway, footways, cycleways, verges, embankments, drainage, bridges, retaining walls, safety fences, street lighting, bus stops/shelters/information systems, street furniture, traffic signs and road markings. Carrying out evidence based efficient and timely lifecycle maintenance is therefore important to satisfy the public's expectations and ensure that the networks are maintained in appropriate condition to the benefit of all the users.

Fit with Local Transport Plan Objectives

The Local Transport Plan has 6 strategic objectives and transport asset management has a role to play in delivering all of them, as is summarised in the table below.

Strategy Objective	Role of Transport Asset Management
A To provide the framework for sustainable development of new and existing businesses, housing and services in Darlington.	To ensure that infrastructure provided as part of development is to a high quality so that the maintenance implications for the Council are minimised. To ensure development in Darlington does not have an adverse effect on the road network of others.
B To improve access to employment and education, particularly for those without access to a private car, those with a disability and those that have greatest need.	When prioritising maintenance spend and capital programme funding, consider the potential benefits to those who are most at need, in particular the need of the disabled and those without access to a car.
C To tackle traffic congestion on key corridors and its potential impact on the economy and environment by making the most effective use of the transport network.	Network Management will link directly to asset management, identifying possible accelerator affects of congestion and travel behaviour on the condition of assets.
D To improve travel safety and security for all by addressing the real and perceived risks.	To maintain the highway assets to a high standard to reduce the risks of accidents. This is important for all road users, but in particular for vulnerable road users such as cyclists, motorcyclists and pedestrians with impaired mobility.
E To provide and promote travel choices to all, in particular to reduce the proportion of car driver trips.	Highway assets need to be maintained to a high standard to encourage people to use them. Maintaining footways, cycle paths, street lighting and bus stop infrastructure is as important as maintaining the roads.
F To improve the health of the community through increasing levels of sustainable travel and improving access to health, leisure and fresh food.	To ensure that the network assets are maintained to a high quality for pedestrians and cyclists to encourage active travel and support travel plan initiatives, which has a positive impact on health.

Progress in preparing the TAMP

Darlington Borough Council is progressing the development of a Transport Asset Management Plan (TAMP) in conjunction with the other Tees Valley authorities.

Developing the Transport Asset Management Plan is a considerable project which involves a series of inter-related tasks. Concentrating on the significant items and the development of lifecycle plans will help to provide a meaningful plan to a reasonable timescale.

Specialist support for the development of the TAMP is being provided by OPUS International Consultants using a facilitation approach which has proved effective with other authorities. This involves a series of focussed workshops covering all the key aspects of asset management. Consultation with customers is an integral part of the structured approach that will inform local needs and service standards along with data such as asset condition and Best Value and Local Performance Indicators.

Each authority will therefore be tailoring the generic plan accordingly and to help facilitate this process, especially in relation to the operational and system issues, Darlington has established a partnering arrangement with Symology, the Council's United Kingdom Pavement Management System (UKPMS) provider and Data Collection Limited (DCL) who are carrying out the data collection/input elements. This will compliment the joint work being carried out by the Tees Valley authorities in respect of the generic asset management plan.

The Council already operates the UKPMS 'Insight'. This is at the heart of all of the operational highway processes, including inventory/condition data for highways/bridges/structures/street lighting/public transport, safety inspections, condition surveys, street works co-ordination, budget management, development of programmes of work, works ordering and public liability insurance. At present works orders for highway maintenance works, safety inspections, condition surveys and streetworks coordination are processed through the system. Eventually all highway remedial works will be included and hence changes to the highway network and its associated infrastructure can be readily incorporated into the asset register and hence the major challenge of keeping the system 'live' and up to date is satisfied in a logical and efficient way. From an operational point of view this means that the Council can respond to requests from the public in the sure knowledge that it is basing its response on the most up to date data. This results in effective and efficient management of the issue and a professional response to the public.

Levels of service are central to the asset management approach for example in relation to performance measurement/management and identification/option appraisal. Whilst this authority works to practices and standards set out in 'Delivering Best Value in Highway Maintenance – Code of Practice for Maintenance Management (2005). It is important that these are formally documented. This also applies to the other Tees Valley Boroughs and therefore the 5 authorities have

jointly compiled a generic Highway Maintenance Plan that again is being adapted by each authority to suit the local needs of users and the community. The plan will be subject to public consultation and this along with technical requirements will help shape the local perspective. This will set out the procedures, practices and standards for the highway maintenance services that will be built into the asset management process.

Opus have been appointed as consultants to lead on the Tees Valley approach to developing and implementing the Transport Asset Management Plan (TAMP). The 5 authorities have met with Opus on a monthly basis since January 2006, with the aim of completing the process by the end of 2006.

To date a gap analysis has been carried out to identify areas where existing inventory is deficient. Currently the Council has a number of discrete databases containing highway asset information including bridge/retaining walls/structures, bus stops/shelters/information, pedestrian guard rails, crash barrier, trees, gullies, traffic regulation orders, school flashing lights, traffic signals/pedestrian crossings.

Some of these have already been incorporated in the Insight System and others are in the process of being incorporated. To address some of the issues of missing or incomplete information, a data collection exercise has been underway in Darlington to provide the building blocks for the TAMP.

During 2005/06 inventory data has been collected on all the unclassified road network, approximately 330km or 60% of the total network. Data has been collected on 25 different asset types, from carriageway to gullies, signs to cycle stands. This has been added to the Symology Insight UK Pavement Management System (UKPMS) by March 2006.

Condition data has been collected on carriageways through Course Visual Inspection, Detailed Visual Inspection and scanner surveys, as well as deflectograph surveys for structural condition. Highways inspectors do ongoing condition reports that are added to the system. SCRIM data (skid resistance) has also been collected on all 'A' roads and accident spots. This has been added to the UKPMS.

A full street lighting inventory will also be installed on UKPMS by March 2006.

This is already actively used to record any actions that take place on every highway street light and illuminated traffic sign across the Borough and to maintain their life history, to generate maintenance strategies and programmes, to provide local and national performance management data and assist budget management. It has proved crucial in the acceleration of the 'White Light Programme' to introduce more energy efficient lighting units in parts of the Borough through a Prudential Borrowing scheme.

Bridge stock and structures inventory data has been added to UKPMS along with the associated condition data.

A database of over 500 bus stops has been developed, including a register of assets and condition and photographs. This will be added to UKPMS in 2006.

Further inventories and data will be added following Tees Valley wide discussions with Opus over the period 2006/07. Ongoing works and historical records will also be added to the system. Works orders will be put through UKPMS so that the asset register is kept up to date, and a history of each asset will be held.

We are in the process of carrying out an Interim Valuation on a sample of highway assets down from the UKPMS data using rates common to members of the Tees Valley Group of authorities. We will also be providing the Benchmark Valuation during 2006/07.

Next steps

Once the asset database is in place the next stage is to use it to direct how and where resources are spent. The system will provide a clear picture of the total highway asset and any gaps will be identified and further data collection undertaken.

The next stage is to use the data on UKPMS to:

- Prioritise the maintenance programme, through a combination of condition data, funding and targets.
- Assess all the assets in proximity to a maintenance scheme e.g. a carriageway maintenance scheme could be extended to include a bus stop improvement or street lighting upgrade.
- Improve links between planned maintenance schemes and integrated transport block funded schemes e.g. a maintenance scheme to improve a footway could incorporate an upgrade to provide a shared use footway/cycle path as part of the cycle network development.
- Improved links with development control to ensure that maintenance issues created by developments are addressed as part of the planning process, e.g. strengthening to carriageway which may be required if traffic levels are set to increase significantly as the result of development.

An Asset Management Team is in place in the Highways Consultancy Division to manage the asset management process and produce programmes of work identified from the asset data.

Financial implications

As the highway assets are of high value it is important that funding is invested to ensure that the standard of the assets is at a high level. Equally important is that funding is spent in the most effective way to achieve value for money and to achieve targets.

Darlington Borough Council is working with Symology on a budget optimisation programme for maintenance that will link levels of funding and targets, based on the condition data in the UKPMS system. Early calculations are demonstrating how varying the levels of funding in early years of the Local Transport Plan can have a positive or negative impact on funding levels that are required in the future to maintain condition at the current level, or indeed how levels of funding can have a positive or negative impact on road condition over the Plan period. This will assist in allocating funding for maintenance programmes as well as target setting and performance analysis.

Once condition levels are at target level it may be possible to identify financial savings. However this position will take a number of years to reach as funding levels are currently too low and the network to be maintained is continuing to expand, in particular the ongoing expansion of the cycle network and street lighting stock. Development work with Symology is continuing.

Additional resources have been made available by the Council, outside of Local Transport Plan maintenance block allocation, to address maintenance issues. Whilst much has been achieved in terms of improving the structural condition of the highway network, following years of under investment, there is still a poor perception of highway condition by residents. Therefore in 2005 the 'Lets Get Cracking' programme was launched. This asked residents to nominate pavements and roads and other assets that needed maintaining or improving. Just over 1000 requests for works have been received and these are now being processed and works implemented. The aim is to improve actual and perceived safety, improve the quality of public spaces and provide better streetscapes. This will not only improve people's quality of life but also encourage more walking and cycling.

New infrastructure – implications for maintenance

It is important that maintenance issues are assessed as part of the investment of capital in new infrastructure. Initial investment costs need to be assessed against lifetime costs. This is achieved through a close working relationship between Maintenance, Traffic Management, Development Control and Transport Policy. The UKPMS will provide supporting evidence on the impact of new infrastructure on the maintenance programme.

These issues are being explored as part of the development of the cycle network in Darlington. As a Cycling Demonstration Town it is important that Darlington implements ambitious and innovative schemes. However the designs must be considered not only on the grounds of safety and traffic management but also maintenance. New standards are being established for routine inspection and maintenance of the cycle network and the type of materials used are being evaluated to ensure that the rapid expansion of the network does not have a detrimental impact on the maintenance funding or the condition targets.

Targets

The condition targets have been set using current knowledge of the highway asset. As the UKPMS system and Symology budget optimisation software develops it will be possible to assess whether targets are realistic in relation to levels of funding available.