



Asset Management Case Study

Local Authority	Leeds City Council
Region	Yorkshire and Humberside
Sector	Highways
Theme	Highways Asset Management
Benefits	Improved highway condition, improved public satisfaction, reduced claims, increased investment.
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Key Lessons

- The established asset management approach for carriageways and footways delivered major benefits in terms of elected member involvement, transparency, significant additional investment, improved public satisfaction, improved condition and reduction in claims.
- Further benefits are anticipated from extension of asset management to all highway assets.
- A Project Board and a route map provide structure to the process.
- Extension of asset management requires involvement of a wide variety of people and investment in inventory and systems.
- Learning can be shared through regional highways groups, which need continually updated agendas and practical support to flourish.

Summary

The effect of low investment in highways over a number of years had been low public satisfaction in the service, a large maintenance backlog and an increasing number and cost of accident claims. Leeds introduced an asset management approach for roads and footways, established condition trends and introduced a substantial additional programme of preventative and structural maintenance, partly funded from anticipated reductions in the cost of claims. The investment, coupled with improvements to the highway inspection and claims management processes, improved public satisfaction and road and footway condition, and resulted in a significant reduction in the number and cost of claims.

Leeds is extending asset management to all highway assets and to improve efficiency of road and footway data collection. It has established a project board and a route map to guide the work. A regional asset management group is being refreshed to share learning.

Background

Low investment in highways over a number of years had led to serious concerns about the rate of deterioration of the network. The consequences were evident in the mid 1990's with high defect levels and low public satisfaction. Successful claims against the highway authority were high and the trend was increasing. Leeds improved engagement with elected members, collected detailed inventory and introduced a holistic approach to street scene using local indicators of the condition of the whole street.

Road and footway condition trends were established through standard condition surveys and through the Leeds Condition Survey, an annual walked survey of the entire network which includes a wider range of defects and an estimated cost of all necessary repairs. This enabled a maintenance backlog figure to be produced, which was found to be increasing year on year.

Elected members concerns led to a £1m increase in the base highways budget (of approximately £14 m pa) in 1999. There was also a shift in emphasis from reactive to structural road and footway maintenance. Insufficient change resulted over the following years leading to a political debate. A case was made for prudential borrowing where the annual reduction in claims costs would fund the long term investment repayments. The additional investment was wholly targeted at improving condition through preventative and structural maintenance. Leeds further supplemented the prudential borrowing from its own capital resources and a total investment of some £82.4million over 9 years resulted.

To ensure the additional funds made a long term difference, there was a deliberate strategy not to increase short term reactive maintenance. In parallel, Leeds had developed an asset management approach where structural maintenance was no longer all directed to roads and footways in the worst condition. Whilst some funds were still spent on a worst first basis, many roads and footways were targeted for preventative works. These works were cost effective and enabled substantial lengths of road and footway to be treated such that defects would be unlikely to develop in the medium term.

A further dimension to reduction of claims was through improving the claims management process. Highway safety inspection procedure was tightened to ensure inspection frequencies were strictly adhered to. The highway inventory had been improved as part of asset management development and this now enabled Leeds to inspect all known areas of adopted highway. Defence of claims was improved through improved working between Leeds's insurer, Legal services and Highways to introduce more rigorous defence of claims where appropriate, and to provide better management information.

Public satisfaction with road and pavement repairs was reported in the 2007 Leeds Opinion Survey as having improved, suggesting that any recent improvements may have impacted on satisfaction.

Drivers for Change

Leeds had enjoyed success in engaging with elected members, developing an asset management based case and in achieving substantial additional investment in carriageways and footways. The result had been improvement in condition and public satisfaction together with a significant reduction in claims. This experience led to the desire to consolidate and build on the work.

Leeds wished to establish asset management across all highway asset groups, with the exception of street lighting for which a PFI contract was already in operation, and to improve efficiency in handling carriageway and footway asset management data.

Improvement Action

Leeds 'Element 2' submission to DfT describes its success in developing asset management for carriageways and footways to December 2008, see [www.helg.org/asset management](http://www.helg.org/asset%20management). Reward funding of £400,000 was awarded.

To manage the development of asset management across the whole range of highway assets, the previous Asset Management Project Board was refreshed. The Board, chaired by the chief officer of Highways and Transportation, was given new terms of reference including responsibility for oversight of the Asset Management Plan and of valuation issues. A project route map, see Appendix A, was devised to include all relevant asset groups and to illustrate the information required to develop maintenance work packages, asset valuation, and the asset management plan. A Project Team was established from across the service to deliver all relevant stages and detailed requirements of the route map.

The 'Element 2' reward funding was combined with the formula based Element 1 funding from DfT into a single fund of approx £660,000 to support extension to all assets and continued development of carriageway and footway asset management. The funds are programmed to be spent over the three years 2009/10 to 2011/12, on equipment, data collection and management and staff. The work includes the following main elements:

Inventory.

Leeds has a good inventory of carriageway, footway, bridges, lighting, traffic signals, illuminated signs and gullies. The project will extend the inventory through video survey to barriers, street furniture, non illuminated signs and other smaller assets. Underground drainage inventory will not be collected systematically as it is not felt cost effective to do so, but available historic records will be transferred to the database and new works added as built.

Carriageways and Footways.

There is extensive asset management information and proven processes for carriageways and footways, so the work here is focused on improvement and increasing efficiency. The existing systems for collecting condition information are paper based and the project has started to introduce hand held data collection devices and to convert paper records.

Gully Management.

Automatic in-vehicle recording of gully emptying will be introduced. This will enable a needs based maintenance programme to be developed to replace the historic cyclic approach.

Traffic Signals

A new GIS based maintenance management system will be introduced.

Structures.

A new maintenance management system will be introduced to hold inspection records. Additional inventory will be collected, especially for structures where asbestos is an issue.

Horticulture.

The inventory of highway grass will be improved.

Public Rights of Way.

A maintenance management system is being considered, however current thinking is that it may not prove to be value for money.

Sharing and Learning Opportunities.

Success in Element 2 involves taking a 'regional champion' role. Leeds intends to deliver this through refreshing an existing Yorkshire and Humberside highways group which has previously focused on valuation issues. Initial soundings from other authorities are positive and Leeds will seek to widen the group's remit to all asset management issues and enable sharing across the region. If necessary, meeting facilities and some secretarial activity will be supported. The group is currently local authority based and a view on private sector membership will be considered in due course.

Leeds also intends to share its experiences nationally where appropriate. It has current plans to present at two national conferences and at its maintenance management system user group.

Barriers

Resource constraints had limited the interest and ambition to extend asset management to the whole highways asset. The prospect of Element 2 funding stimulated wide interest in asset management and facilitated engagement with key people across the service to develop the bid and now to work to a common goal.

Rebalancing the carriageway and footway maintenance programme towards preventative and structural maintenance rather than reactive maintenance reduced local staff discretion and ability to respond to local pressures. This was initially difficult but was accepted as part of solving the greater problem of declining condition and public satisfaction.

Outcomes

The key intention is to improve services through understanding and actively managing all aspects of the highways asset. This will further improve the ability to engage with elected members, the ability to make a full resource case and to make resource allocation judgements. The whole life approach within asset management is expected to improve efficiency through reduced reactive maintenance costs. Asset valuation will be improved through the improved inventory.

The profile of highways asset management in the Yorkshire and Humberside region will be raised through sharing learning and experiences as a regional champion.

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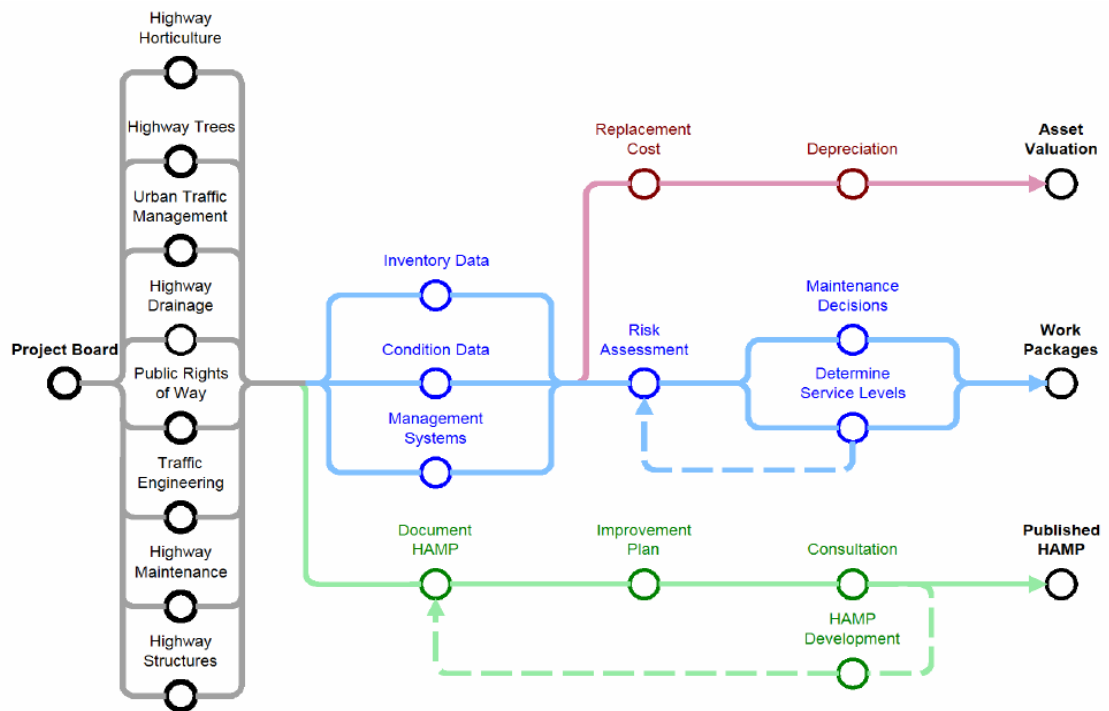
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Appendix 1

Highways Asset Management Route Map



**Highways Asset Management Project
Route Map**

