

# Progress on Transport Asset Management Plan (TAMP)

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## 8.1 Introduction

### 8.1.1 Progress on Transport Asset Management Plans (TAMPS) in Greater Manchester

In this document we provide a summary of progress towards the preparation of Transport Asset Management Plans (TAMPs) for the ten local highway authorities in Greater Manchester – Bolton, Bury, Manchester, Oldham, Rochdale, Salford, Stockport, Tameside, Trafford and Wigan. In addition, this document outlines progress made by four other public sector bodies with responsibility for the management of various transport assets, in the preparation of similar TAMPs. These bodies are Greater Manchester Passenger Transport Executive (GMPTE), Greater Manchester Transportation Unit (GMTU), Greater Manchester Urban Traffic Control (GMUTC) and Manchester Airport are provided.

Although each of these bodies will be preparing individual TAMPs, some common approaches have been identified where appropriate and these are outlined in the sections below. Principally, all of the TAMPs are being prepared using the guidance in the framework for Highway Asset Management published by the County Surveyors Society (CSS), and other relevant guidance as appropriate eg Guidance on Asset Valuation, the Codes of Practice for Highways Maintenance Management, Highways Structures etc.

Communication and co-ordination between districts have taken place through review meetings with representatives and regular meetings of the Greater Manchester Association of District Engineers (GMADE) sub-groups for Highways Asset Management, Structures, Street Lighting and Public Rights of Way. Some of these groups have been involved in developing common methodologies or templates (such as for asset valuation, as described below) and communicating best practice. The GMADE Highways Asset Management Group has also identified a number of stakeholders across Greater Manchester to assist in determining service levels.

### 8.1.2 Goals, Objectives and Policies

The Greater Manchester Maintenance Strategy (Annex A1-7) and Action Plan outline the principal maintenance strategy for the ten districts. Whilst the individual authorities maintenance strategies deal with each districts particular problems and the BVPI identify Central Government aims.

The TAMP will highlight the requirement of both LTP policies and local corporate policies and strategies, and the resources needed to achieve these aims. In addition, the plan will identify the optimum allocation of resources for management, operation, preservation and enhancement of the highway infrastructure not just to meet the needs of current customers but also future customers. Whole life or life cycle costing being addressed to identify and try to prevent a high burden of maintenance costs is not passed onto future generations.

The plan is a tool to assist the decision making process, particularly as is likely the funding levels will be inadequate to meet all aspirations.

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The optimum level of reactive preventative and planned structural maintenance carriageway resurfacing being assessed based on the aspirations available funding, and to limit the future maintenance requirements.

The TAMP is acting as a driver for the Greater Manchester Authorities to undertake a review of their maintenance policies and practice, and to update the policy in the light of the new Codes of Practice for highways maintenance, maintenance, street lighting maintenance and highway structure maintenance.

### 8.1.3 Achieving Best Value

All authorities have made considerable progress throughout the LTP1 period in reviewing the existing maintenance policies and practice and further development of policies is ongoing.

A significant development arising from service Best Value Reviews has been the use of prudential borrowing to fund term programmes, incorporating whole life costing principles. In both Manchester and Stockport, maintenance programmes for footways has been developed based on spend to save initiatives where increased funding is provided for maintenance in order to reduce the insurance claims for trips etc. However, there are significant implications in becoming too reliant on capital fund authorisation as these loans have to be repaid over many years from revenue allocations.

A number of differing innovative approaches for funding and procurement of services have been implemented, throughout the 10 districts.

The implementation of these approaches has been based on the current condition of the asset and availability of resources, staff and finance, now and in the future for the particular authority. A one “size fits all” approach would not be likely to produce Best Value for most authorities.

Some examples:

- PFI for street lighting in Manchester: Manchester have entered into a contract with Amey Highways Lighting (Manchester) Ltd to provide all reactive and planned management of the Manchester’s street lighting stock. This contract contains detailed service levels information in line with the council’s priorities for street lighting and key elements of forward programming and whole life costing.
- Urban Vision Partnership in Salford: This is an overarching strategic partnership for the delivery of physical infrastructure and environmental improvements in Salford City, covering planning, regeneration and engineering consultancy, highway design and asset management services. The partnership was formed in 2005 between Salford City Council, Capita Symonds and Morrison plc. Capita Symonds are playing a key role in developing the TAMP.
- Street Scene Strategic Alliance in Stockport. This constitutes a series of partnership contracts with specialist contractors, and also includes arrangements for Stockport Direct Services. A managing agent team has been formed which reports to the Transportation and Planning Department and the Streetscene Alliance Board. The aim of the partnership is to draw on expertise from the private sector, particularly in planning and risk management functions, to deliver effective highway management in line with the council’s priorities, and

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to meet or exceed challenging Best Value and local targets. Critically the Alliance enables the optimisation of resources from both public and private sectors.

- In Rochdale there are proposals to develop a strategic partnership with existing maintenance contract partners.
- Trafford has adopted a project management approach co-ordinating specialist partnered contractors to reduce the added costs associated with sub-contracting by main contractors and to ensure the most competitive rates for all aspects of the work. The partnering contracts awarded by selected tendering ensures value for money, good quality is achieved and contract claims are minimal, and maintains continuity of service

## 8.1.4 Key Challenges

### *Development of Asset Registers (Inventory and Condition)*

Through the development of TAMPs a need has been identified for a step change in the way information on transport assets is stored, updated, communicated and utilised by and between the highway maintenance, network management and the capital programming functions.

Considerable progress has been made in all the Greater Manchester transport bodies towards the establishment and consolidation of comprehensive inventories of assets and their condition, and procedures to ensure that they are maintained continuously to accurate standards. However further work is still required over 2006/07 and beyond to gather asset information on areas that have been little considered, particularly non-highway authority transport assets. Again, work towards developing service levels will identify local requirements for condition data to supplement statutory requirements (such as BVPIs). The GMADE sub-groups have also been discussing how efficiencies can be achieved through consortium approaches to data gathering.

Many authorities are adapting asset data software with GIS mapping interfaces that will enable asset information to be shared between relevant service areas (particularly in relation to duties inferred through the NRSWA and Traffic Management Act), generate condition and performance related indicators and process whole life costing information to produce optimised works programmes.

### *Asset Valuation*

The GMADE Highway Engineers group have progressed with developing Greater Manchester footway and carriageway construction unit rates. This is concurrent with individual authorities consolidating asset component information, in order to produce Gross Replacement Costs for the carriageway and footway networks. Approaches to interim valuations have differed across authorities largely dependent on the nature of the asset inventory information available for the exercise.

Further work is required to develop unit rates for other asset groups, and this will be achieved through co-ordination by GMADE sub-groups for structures, street lighting and public rights of way. For structures it will be necessary to produce interim unit rates based on deck area to avoid conflicting with the priorities outlined in milestones 1 and 2 in the new Code of Practice.

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### 8.1.5 Development of Interim Plans

Although many of the GM bodies have already developed some sophisticated asset management practices for their transport infrastructure, this is the first time a comprehensive plan has been developed. The TAMPs should provide a framework for continuous improvement in asset management. It will inform our maintenance forward plans as well as outlining actions to improve management procedures, including the management and further development of asset information systems. These improvements will feedback into the further refinement of the TAMP itself and as such will be a “living document” modified each year to reflect refinements and new policies.

Work undertaken to date represents a first level of gap analysis to identify key actions required to develop the final TAMPs in 2007. It is therefore anticipated that by March 2006 interim TAMPs will have been prepared to the extent that they provide a framework for their further development, with an improvement plan to address identified performance gaps. The plans will also need to be developed in the context of funding expectations for the LTP2 period. Much of the work undertaken by authorities has been in relation to carriageway, footway and street lighting assets, with the intention that this will be rolled out to other asset groups over 2006/07.

With highways structures the progress in implementing the CSS Framework will be largely affected by the body of work outlined in the 3 Milestones contained in the new Code of Practice. Although this work is complementary to the development of the structures asset management plan, the milestones impact on the timescales for undertaking various elements of the CSS Framework, with a focus in Milestone 1 on ensuring safety operations regimes are in place.

Below are tabular summaries of progress towards individual organisations' TAMP development.

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## 8.2 Progress Summaries

### 8.2.1 Bolton Metropolitan Borough Council

Element	Progress	Planned actions
<b>2.1 Overall progress</b>	<p>TAMP working group established</p> <p>Work started on a Highways Asset Management Plan.</p> <p>Structures Action Plan developed</p> <p>Rights of Way section have begun consultation on service levels to feed into both TAMP and ROWIP</p>	
<b>2.1 Inventory</b>	<p>Full data review undertaken</p> <p>Comprehensive inventories with high confidence levels for carriageways, footways (95% confidence) and Public Rights of Way (100%), structures (85%) and street lighting (100%).</p> <p>No detailed inventories for street furniture, drainage, highway trees or road markings</p>	<p>The justification for extending current databases will be considered as part of the asset management process and will be based on practicality and financial benefit.</p> <p>Type and lengths of surfaced PRoW</p> <p>Align data systems with new Authority standard system (map based)</p>
<b>2.2 Condition</b>	<p>BVPIs for Carriageways, Footways and PRoW</p> <p>Carriageways:</p> <p>MARCHpms CVIs for Principal, B, C and Unclassified (100% confidence)</p> <p>Safety inspection inventory (100%)</p> <p>Principal Road deflectograph (100%)</p> <p>SCRIM surveys of Principal (2001, 2002, 2004) and class B (2003) (100%)</p> <p>Footways:</p> <p>DVIs for class 1, 1a and 2 (100%)</p> <p>Structures:</p> <p>Principal and general inspections (100%)</p> <p>BCI (90%)</p>	<p>The needs and justification for extending current databases will be considered as part of the asset management process and will be based on practicality and financial benefit.</p> <p>Align data systems with new Authority standard system (map based)</p>
<b>2.3 Levels of Service</b>	<p>Review of policies in relation to CoP for Highways Maintenance Management underway</p>	<p>Compare current policies, standards, frequencies with CoP, minimum duties under Highways Act and Bolton Plan</p> <p>Determine new policy requirements where deviating from CoP</p>

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Element	Progress	Planned actions
		Consultation on service levels
<b>2.4 Asset Valuation</b>	<p>Highways: Developed common Greater Manchester unit rates for carriageway and footway replacement.</p> <p>Analysis of consecutive years' CVI condition survey/BVPI results to determine possible rates of deterioration and projected future needs</p>	<p>Contribute to development of common unit rates for structures (modern equivalent asset costs)</p> <p>Historical costs for special structures</p> <p>Street lighting</p> <p>PRoW</p>
<b>2.4 Asset Valuation (cont'd)</b>		Considering the use of GMADE '1-9' condition survey method to determine costs of raising highway condition to desired standard (depreciation charge)
<b>2.5 Lifecycle Planning</b>		Research new computer systems for prioritising work using condition data and service level inputs

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## 8.2.2 Bury Metropolitan Borough Council

Element	Progress	Planned actions
<b>3.1 Overall Progress</b>	<ul style="list-style-type: none"> <li>TAMP working group established</li> <li>Work started on a Highways Asset Management Plan and outline document produced.</li> <li>Gap analysis and valuation being undertaken</li> </ul>	Draft plan to be approved and published by Mid 2006
<b>3.1 Inventory</b>	<p>Carriageways and Footways:</p> <p>Polygon network inventory in UKPMS (90% complete)</p> <p>Full detailed Highway Inventory collection being undertaken on sample area of the Borough linked to GIS to facilitate valuation.</p> <p>Private street have been identified and prioritised for making up and adoption</p> <p>Structures</p> <p>Full bridge inventory</p> <p>Inventory of smaller structures part complete</p> <p>RAMOS bridge records system is being updated with links to other databases</p> <p>Street Lighting</p> <p>Inventory complete although system is inappropriate for efficient service delivery</p> <p>Illuminated signs</p> <p>In house data base</p> <p>Partial inventories of drainage, gullies, road markings and safety fencing</p> <p>Incomplete paper based records for car parking</p> <p>PRoW Definitive Map complete and on GIS</p>	<p>To extend the detailed Highway inventory collection across the Borough.</p> <p>Further development of map based systems.</p> <p>Complete digitisation of PMS network and gap analysis of incomplete data.</p> <p>Implementation of new SBS system</p> <p>Position data to be collected as part of Highway Attribute Inventory Survey and linked to GIS</p> <p>Gather street lighting inventory information in line with CoP</p> <p>Extend GIS database new surveys and assessments or renewals are carried out</p> <p>Car park data to be collected as part of Highway Attribute Inventory Survey</p> <p>Link Definitive Map to Highways GIS database</p>
<b>3.2 Condition</b>	<p>Carriageways:</p> <p>MARCH-PMS in use</p>	Roll out SCANNER, Deflectograph and SCRIM to other classifications over next few years

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Element	Progress	Planned actions
	<p>SCANNER surveys undertaken on Principal and B class roads</p> <p>CVIs on 100% of network annually</p> <p>DVIs on 10% of network annually</p> <p>Safety inspection (100% in line with CoP)</p> <p>Principal Road deflectograph</p> <p>SCRIM surveys of Principal</p> <p>Footways:</p> <p>DVIs for class 1, and 2 (50% annually)</p> <p>Structures:</p> <p>Defects database complementing RAMOS system</p>	Completion of BCIs
<b>3.3 Levels of Service</b>	Initial levels of service will be based on BVPI targets for April 2006. Gap analysis underway to determine current and desired service levels using value management.	Further work on service levels in relation to CoPs and corporate policies to be progressed
<b>3.4 Asset Valuation</b>	A 15% sample of the highway network (derived from the Highway Inventory Survey) will be used to produce a GRC with unit rates developed by GMADE sub-groups	Extend this across whole network as up dated inventory data becomes available.
<b>3.5 Lifecycle planning</b>	Lifecycle planning is being developed alongside levels of service to ensure sustainable and realistic targets which are achievable.	Gap analysis and lifecycle planning will be undertaken for each asset group by April 2006. Value Management system to be introduced to ensure that informed decisions are made.
<b>3.6 Forward Programme</b>		Draft long term optimised works programme will be considered by April 2006
<b>3.7 Financial Monitoring systems</b>		Integrated financial system (AGRESSO) will be in operation by April 2006

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## 8.2.3 Manchester City Council

Element	Progress	Planned actions
<b>4.1 Overall Progress</b>	<p>Draft TAMP has been produced outlining work towards service level setting and gap analyses. This has been distributed via GMADE website.</p> <p>Street Lighting PFI already specifies comprehensive Service Level Agreements and approaches to lifecycle management and options appraisal.</p>	<p>Two main work flows:</p> <ul style="list-style-type: none"> <li>● Aims and objectives linking to strategies and policies, and gap analysis (eg with CoPs)</li> <li>● Resource issues: auditing internal systems for Highways and PRow</li> </ul>
<b>4.2 Inventory</b>	<p>Carriageways and Footways:</p> <p>New PMS system is being installed</p> <p>Opportunity arising from this to validate hierarchy categories and other inventory data</p> <p>GIS database links to be developed</p> <p>Structures:</p> <p>Complete and comprehensive inventory</p> <p>PRow:</p> <p>Review of Definitive Map complete</p> <p>Currently addressing anomalies and securing Definitive Map Modification Orders</p>	<p>Installed by April 2006</p> <p>Gap analysis of inventory requirements in line with CoP to be completed by March 2006</p> <p>Street Lighting:</p> <p>PFI Contract requires street lighting asset register to be 99% complete by 2006</p>
<b>4.3 Condition</b>	Carriageways and Footways:	Structures:

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Element	Progress	Planned actions
	<p>In addition to BVPI data a 1-9 condition ranking system has been developed to assist with costing for forward works programming and production of DRC.</p> <p>Map based condition data sets will enable better communication with stakeholders</p> <p>PRoW:</p> <p>Improvement in PRoW network measured through BVPI178</p>	<ul style="list-style-type: none"> <li>Further work on BCIs in line with CoP</li> </ul>
<b>4.4 Levels of Service</b>	Service levels for street lighting are already clearly defined in the PFI contract	Service levels for all asset groups to be defined by March 2006
<b>4.5 Gap analysis</b>		A gap analysis will be undertaken for bridges in line with milestones 1 and 2 of CoP by March 2006
<b>4.6 Asset Valuation</b>	Work is underway to produce a sample GRC for the carriageway and footway network in 2 wards out a total of 32.	Lessons will be drawn from this for further refinement to produce a baseline DRC for the 2007 opening accounts
<b>4.7 Lifecycle planning</b>	Lifecycle planning is already established for street lighting. Life cycle models have been developed for bridge assets also.	This will be rolled out to other asset groups once gap analyses for other asset groups has been undertaken
<b>4.8 Forward programming</b>	Analysis is underway to clarify contributions of operational outputs to outcomes prioritised through corporate policy. This is a prerequisite to developing an integrated forward work programme for all asset groups.	
<b>4.9 Financial monitoring</b>		Financial systems across the council are to be consolidated into a single procurement, ordering and accounting system which will contribute to further improvement of asset management practices..

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## 8.2.4 Oldham Metropolitan Borough Council

Element	Progress	Planned actions
<b>5.1 Overall Progress</b>	Oldham are working in partnership with consultants to produce a draft plan	
<b>5.2 Inventory</b>	A full review and gap analysis is underway for asset inventories covering:  Highways  Structures  Street lighting  Drainage  Street furniture  Markings  Traffic calming	Further work to identify and appraise options for further data collection throughout 2006
<b>5.3 Condition</b>	Review of asset condition data and gap analysis is underway	To be completed for March 2006
<b>5.4 Levels of Service</b>		Levels of service will be reviewed taking into consideration the following:  Level of funding available  Statutory obligations  Corporate and Service Plans  BVPIs and local KPIs  Customer expectations  Best Practice and CoPs  LTP and GM Maintenance Strategy
<b>5.5 Asset Valuation</b>	Work is underway to produce a sample valuation	To be completed by March 2006
<b>5.6 Life cycle planning</b>		Lifecycle planning will be undertaken for the sample of the network once condition and valuation has been completed. This will be reviewed in order to extend lifecycle planning across the rest of the network.
<b>5.7 Forward programming</b>		Work towards developing a long term forward programme is yet to be determined and is dependant on funding expectations

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## 8.2.5 Rochdale Metropolitan Borough Council

Element	Progress	Planned actions
<b>6.1 Overall progress</b>	Initial chapters outlining policy linkages with asset management have been produced. This forms the basis for further work on service level setting.	
<b>6.2 Inventory</b>	<p>Carriageways:</p> <p>Digitised network developed (Complete/95% reliability)</p> <p>Footways</p> <ul style="list-style-type: none"> <li>Digitised network developed (Complete/75% reliability)</li> </ul> <p>Structures</p> <ul style="list-style-type: none"> <li>Bridges inventory (Complete/95% reliability)</li> <li>Highway walls (Part complete/75% reliability)</li> </ul> <p>Highway verges: Complete/99% reliability</p> <p>Highway trees: Part complete/50% reliability</p> <p>Street lighting: Full stock survey undertaken (Complete/95% reliability)</p>	<ul style="list-style-type: none"> <li>Data on wall lengths and height need to be gathered</li> <li>Highways verges to be linked to Highways GIS database</li> <li>Further street lighting inventory data to be gathered in line with CoP</li> </ul>
Element	Progress	Planned actions
<b>6.2 Inventory (Cont'd)</b>	<p>Lit signs: Complete/95% reliability</p> <p>Unlit signs: Complete/95% reliability</p> <p>Highway drainage: Average/50% reliability</p> <p>Gullies: Plotted on Fastmap – Part complete/85% reliability</p> <p>Land drains: Poor/5% reliability</p> <p>Road markings (yellow): Part complete/85% reliability</p> <p>Road markings (white): Poor/5% reliability</p> <p>Safety fencing: Poor/5% reliability</p> <p>Car parks (pay and display): Complete/100% reliability</p> <p>Other car parks: Poor/5%</p> <p>PRoW: Definitive map 60% reliability</p>	<ul style="list-style-type: none"> <li>GPS systems to be used to verify inventory and condition information for drainage and gullies</li> <li>Inventory information on land drains to be gathered as part of development of Flood Defence Policy</li> <li>Road markings and safety fencing to be included within Highway inspection regime</li> <li>Substantial amount of work to verify the accuracy of Definitive map</li> </ul>
<b>6.3 Condition</b>	<p>Carriageways:</p> <p>UKPMS/MARCH system</p> <p>Scanner surveys on classified roads (95% reliability)</p>	<ul style="list-style-type: none"> <li>Develop in house condition assessment for carriageways and footways</li> <li>Further development of BCI inspection regime to align with CoP</li> </ul>

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Element	Progress	Planned actions
	CVI surveys on 25% of unclassified roads (95% reliability)  Footways <ul style="list-style-type: none"> <li>● UKPMS/MARCH system</li> <li>● DVI survey on cat 1a and 2 footways (75% reliability)</li> </ul> Structures <ul style="list-style-type: none"> <li>● BMX system</li> </ul> Street lighting: MAYRISE system	<ul style="list-style-type: none"> <li>● Condition assessments for street lighting to be developed for forward works programme</li> <li>● Condition surveys for lit and unlit signs to be carried out to identify future repair policy</li> <li>● Condition assessments for car parks to be developed</li> <li>● Condition assessments for PRow to be developed</li> </ul>
<b>6.4 Levels of Service</b>		<ul style="list-style-type: none"> <li>● Intend to set service levels in line with CoPs, BVPIs and AGMA PIs, in consultation with stakeholders.</li> </ul>
<b>6.5 Asset Valuation</b>	Rochdale have identified 1/6 <sup>th</sup> sample of the highway network for which the indicative GMADE unit rates will be used.  To date there has been little progress with valuation of other asset groups.	The sample needs to be categorised into hierarchies prior to producing GRC.  This will be extended to other asset groups during 2006/07
<b>6.6 Life cycle planning</b>		Lifecycle planning will be undertaken for the above sample of the network for April 2006  This will be extended to other asset groups during 2006/07
<b>6.7 Forward Programming</b>		Optimisation and forward programming will be piloted with the highway network and then rolled out to other groups as the above elements are undertaken.

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### 8.2.6 Salford City Council

Element	Progress	Planned actions
7.1 Overall Progress	Venture partners Capita Symonds is producing a draft TAMP document. The document may take many years of refinement, and suggested that a standard milestone statement for Greater Manchester may assist in planning.	Completion of Transport Asset Management Plan , Individual Highway Asset Management Plans , together with Policy documents linked into Council Policies, Objectives and Pledges.
7.2 Inventory	<ul style="list-style-type: none"> <li>● Highways: Various databases in Confirm and GGP GIS layers</li> <li>● Highway verges and trees: a complete inventory is available</li> <li>● Street lighting: Stock surveys are complete</li> <li>● Structures: A comprehensive inventory of bridges and structures exist with Bridge Maintenance</li> </ul>	<ul style="list-style-type: none"> <li>● These need to be consolidated and integrated into a single GIS based source.</li> <li>● Tree Inventory to be done</li> <li>● Further St Lighting information required</li> <li>● Structures data needs to be transferred to GIS layer</li> <li>● Traffic signs and road markings Inventory required</li> </ul>

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Element	Progress	Planned actions
	<ul style="list-style-type: none"> <li>● Traffic signs and road markings: contained on a GIS layer. Illuminated signs have been surveyed</li> <li>● PRow: Surveys have been undertaken for the ROWIP</li> <li>● Car Parks: Partial inventory. Contains size information for pay and display, but few details on free car parks</li> </ul>	<ul style="list-style-type: none"> <li>● Definitive Map to be updated in the light of these surveys as well as ROW claims. ROWIP 10 year programme of works drafted.</li> <li>● Further work to gather inventory data on other pedestrian routes that are not on either the adopted network or the Definitive Map.</li> </ul>
7.3 Condition	<ul style="list-style-type: none"> <li>● Highway surveys in line with BV reporting requirements</li> <li>● BCI production is on-going</li> </ul>	
7.4 Levels of Service	<ul style="list-style-type: none"> <li>● Service levels have been drafted through a review of current practice in relation to the new CoPs.</li> </ul>	<ul style="list-style-type: none"> <li>● Formal agreement and Council approval required</li> </ul>
7.5 Asset Valuation	<ul style="list-style-type: none"> <li>● Work underway to produce a sample GRC for the highway network. Other work on-going to gather component information as a basis for other asset group valuation</li> </ul>	
7.6 Lifecycle planning	<ul style="list-style-type: none"> <li>● Whole costing has been introduced to planning for highways maintenance, and has contributed to the development of a 15 year carriageway resurfacing programme, and proposed 15 year programmes for footways, signs, bridges, street furniture, drainage and safety fences</li> </ul>	<ul style="list-style-type: none"> <li>● Gap analysis and life cycle planning will be undertaken for each asset group.</li> </ul>
7.7 Forward Programming	<ul style="list-style-type: none"> <li>● 15 year carriageway resurfacing programme proposed for classified network.</li> <li>● ROWIP 10 year programme has been drafted</li> </ul>	<ul style="list-style-type: none"> <li>● further development of draft programmes for street lighting, bridges, car parks, street furniture and signing.</li> </ul>

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## 8.2.7 Stockport Metropolitan Borough Council

Element	Progress	Planned actions
<b>8.1 Overall Progress</b>	Work to date represents a first stage of gap analysis to identify prerequisite data and software systems for the development of the final TAMP document in March 2007. A report is being prepared to identify the key actions and resources required over 2006/07 to achieve this, which will also be outlined in the draft TAMP for March 2006.	
<b>8.2 Inventory</b>	<p>Carriageways and Footways:</p> <ul style="list-style-type: none"> <li>● Currently confidence level is <i>medium</i> although this will improve with verification against other databases contained in GIS (particularly Street Gazetteer)</li> <li>● Cycleways: No data</li> <li>● BVPI 187 network has been reviewed in line with footway categories 1&amp;2</li> <li>● Pilot survey work to determine local access footway categories 3&amp;4 (including adopted and unadopted footpaths and alleyways, housing paths and unrecorded RoWs in parks) underway</li> <li>● Traffic Islands: <i>Medium confidence level</i></li> <li>● Safety barriers: <i>Low confidence level</i></li> <li>● Kerbs: <i>Low confidence level</i></li> <li>● Surface water drains, sewers, inspection chambers, ditches, filter drains, culverts: <i>Confidence level 'none'</i></li> <li>● Gullies: Medium, but no exact locations</li> <li>● White road markings and studs: <i>Confidence level 'none'</i></li> <li>● Yellow road markings and TRO signs contained on database with Traffic Services</li> <li>● Verges: <i>Medium confidence level</i></li> <li>● Trees: <i>High confidence level</i></li> </ul> <p>Street Lighting</p> <ul style="list-style-type: none"> <li>● Locations: <i>High Confidence level</i></li> </ul> <p>Structures:</p> <ul style="list-style-type: none"> <li>● GIS database</li> <li>● <i>Medium Confidence level</i></li> <li>● <i>Medium confidence level</i> for structures in parks and open space</li> </ul> <p>PRoW: <i>Medium Confidence level</i></p> <p>Car Parks and associated infrastructure:</p> <ul style="list-style-type: none"> <li>● <i>Medium Confidence level</i></li> <li>● Detailed survey of disabled parking provision undertaken</li> </ul>	<ul style="list-style-type: none"> <li>● Work required to consolidate GIS polygon maps (Adopted Street Register) and Street Gazetteer with data on Confirm and Exor UKPMS system (containing only length information).</li> <li>● Strategic cycle network is being drafted</li> <li>● Survey and criteria developed to determine footway categories will be rolled out to other areas of the borough</li> <li>● Investigate use of trackers (used on gritting lorries) on gully cleansing machines to obtain precise locations</li> <li>● To be integrated with Confirm/Mapinfo database</li> <li>● Further development is underway before general usage of database</li> <li>● Additional structures inventory work outlined in CoP milestones 1&amp;2</li> </ul>
<b>8.3 Condition</b>	Carriageways:	<ul style="list-style-type: none"> <li>● Need to establish C-way and F-way condition data requirements for lifecycle planning and depreciation calculation.</li> </ul>

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Element	Progress	Planned actions
	<ul style="list-style-type: none"> <li>● SCANNER (PRN and B class) and CVI surveys undertaken for BV reporting</li> <li>● CVIs undertaken to inform 3 year structural maintenance programme</li> </ul> <p>Footways:</p>	<ul style="list-style-type: none"> <li>● Pilot use of GPS handhelds to gather data on column condition for painting programme</li> <li>● Work on-going to develop condition database</li> </ul>

## 8 Progress on Transport Asset Management Plan (TAMP)

Element	Progress	Planned actions
	<ul style="list-style-type: none"> <li>● DVIs on Category 1&amp;2 footways for BV187</li> </ul> <p>Structures:</p> <ul style="list-style-type: none"> <li>● 1<sup>st</sup> round of BCIs complete</li> <li>● Retaining walls assessments 70% complete</li> <li>● <i>Medium Confidence level</i></li> </ul> <p>Street Lighting:</p> <p>High confidence in visual inspection and electrical testing</p> <p>Car parks: <i>Low confidence level</i></p> <p>PRoW: BV178 inspections. Low confidence level for both surface condition and furniture – on account of low extent of database</p>	<ul style="list-style-type: none"> <li>● Pilots to be undertaken on sample of PRN network to gather wall to wall street furniture data</li> </ul>
<b>8.4 Levels of Service</b>	<p>Comprehensive reviews of service levels are being undertaken in relation to the new CoPs. This enables the identification of new policy needs where local practice may deviate.</p> <p>Structures review is complete</p> <p>Service levels for cyclical and reactive maintenance for street lighting and illuminated signs and bollards being developed in new Street Lighting Policy</p>	<ul style="list-style-type: none"> <li>● Recommendations for CoP adoption and any deviations to be submitted for approval in April 2006</li> </ul>
<b>8.5 Asset Valuation</b>	<p>A draft GRC has been produced, although this has been based on some estimates of lengths of different construction types. As carriageway and footway inventory data has yet to be consolidated, a crude DRC is being produced for the entire network for March 2006, rather than a sample.</p>	<ul style="list-style-type: none"> <li>● Interim valuation to be done for carriageways and footways and street lighting using GMADE unit rates.</li> </ul>
<b>8.6 Lifecycle planning</b>	<p>Lifecycle planning is underway for street lighting</p> <p>Specifications are being developed for integration of data systems into GIS interface with other service information (such as road accident data). Crucially an appropriate interface needs to be developed between Exor PMS system and GIS mapping to be able to develop lifecycle plans.</p> <p>Some whole life costing of some component parts of structures (such as abutments) is used. However, programming is on the basis of results of general and principal inspections.</p>	<ul style="list-style-type: none"> <li>● Cross service Confirm data system to be developed in 2006/07</li> </ul>
<b>8.7 Forward Programming</b>	<p>3 year structural maintenance programme (updated annually) is under development</p> <p>Structures operate a rolling 3-5 year programme of prioritised works.</p>	<ul style="list-style-type: none"> <li>● Implications of indicative funding levels over LTP period need to be assessed</li> <li>● Development of Confirm system is required to be able to undertake integrated long term programming</li> </ul>

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## 8.2.8 Tameside Metropolitan Borough Council

Element	Progress	Planned actions
<b>9.1 Overall progress</b>	Tameside have worked in partnership with WS Atkins to undertake certain elements of the TAMP framework. A draft plan has been produced.	
<b>9.2 Inventory</b>	<p>A comprehensive programme of inventory review, data collection and maintenance has been undertaken with the aim of ensuring compatibility with GIS displays.</p> <p>Street lighting, signage and bollard data has been gathered and incorporated into the Symology system. This has been recognised by the DNO (United Utilities as a 'significant improvement made' over previous arrangements. This also enables officers and the public to access inventory information, which will improve response times in identifying and repairing faults.</p> <p>Structures: The inventory is comprehensive and is to be incorporated into GIS</p> <p>Gullies information has been compiled over a number of years from cleansing and repair operations. This enables the identification of locations with recurring problems.</p> <p>TRO and traffic calming data is being compiled to go on GIS database</p> <p>Road markings are based on estimate through road hierarchy associated specifications</p> <p>Street furniture data has been drawn from various sources but needs verification</p>	<p>Long term planned data collection projects have been identified for inventory gaps (such as road construction information)</p> <p>Further carriageway inventory data collection is required to determine construction types and surface finishes particularly on unclassified 4a and 4b roads.</p>
<b>9.3 Condition</b>	Carriageway condition data is in line with requirements for CVI and Scanner surveys. Condition data is presented in Red, Amber & Green categories on TRUMAP display to assist in forward works programming and communication to public and members (via website). This has also been supplemented by the 1-9 scoring system developed by the GMADE sub-group.	

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Element	Progress	Planned actions
	Highway culverts have also been given Red, Amber or Green condition categories for future work programme determination.	
<b>9.4 Levels of Service</b>	The Engineering Service have a series of Service Charters that are viewable on the website. Some new desired levels of service have been identified, and gap analyses of Street Lighting procedures undertaken.	These will be reviewed as part of the development of the TAMP.
<b>9.5 Asset Valuation</b>	Tameside originally sought to undertake a valuation of a sample of the carriageway network based on category 2 roads. It was subsequently decided that a 10% sample of all road hierarchy categories should be undertaken to ensure that principles and lessons learnt for the valuation of each hierarchy level could be fed into the final valuation of the whole network for 2007/08. A GRC has been produced for this sample.	Work on depreciation rates will be undertaken for March 2006 to produce an interim DRC.
<b>9.6 Lifecycle Planning</b>	Work on this has tied in with Service Charter reviews. For example, the Street Lighting Group are considering extending bulk change and lamp cleaning cycles from 3 to 4 years following the introduction of improved lamps and electronic ballasts.	
<b>9.7 Financial Management</b>	Simple depreciation rates have been used to predict future financial needs. These rates will be revised following work in line with the CSS/TAG Guidance on Highways Asset Valuation.	

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## 8.2.9 Trafford Metropolitan Borough Council

Element	Progress	Planned actions
10.1 Overall Progress	<ul style="list-style-type: none"> <li>● TAMP working group established</li> <li>● Draft framework for the Asset Management Plan</li> <li>● An interim report on the principles and structure of the TAMP has been communicated to members for approval and further progression.</li> </ul>	
10.2 Inventory	<ul style="list-style-type: none"> <li>● For Carriageways and Footways the MARCH Inventory to be used</li> <li>● Street lighting inventory: comprehensive</li> <li>● Structures inventory: comprehensive</li> <li>● For other asset groups the inventories are either incomplete or not available. However, reasonably accurate estimates can be made, and any assumptions will be documented.</li> </ul>	<ul style="list-style-type: none"> <li>● Structures inventory data needs reformatting</li> </ul>
10.3 Condition	<ul style="list-style-type: none"> <li>● The condition is defined by BVPI results and other surveys</li> </ul> <p><b>Carriageways</b></p> <ul style="list-style-type: none"> <li>● March UK PMS CVI's A, B, C and unclassified</li> <li>● Scanner survey principal roads (A roads)</li> <li>● Scanner survey classified none principle roads</li> <li>● Deflectograph</li> </ul> <p><b>Footway</b></p> <ul style="list-style-type: none"> <li>● <ul style="list-style-type: none"> <li>• DVI's on footways Class 1 and 2</li> </ul> </li> </ul> <p><b>Structures</b></p> <ul style="list-style-type: none"> <li>● Principle and general inspectors</li> </ul>	
10.4 Levels of Service	<p>Levels of service are identified by targets for:</p> <p>BVPI99  BVPI165  BVPI178  BVPI187  BVPI223  BVPI224a  BVPI224b</p>	

## 8 Progress on Transport Asset Management Plan (TAMP)

Element	Progress	Planned actions
	As well as for cyclic operations and renewal periods for street furniture	
<b>10.5 Asset Valuation</b>	<p>A report on valuation principles in line with the Guidance on Highway Infrastructure Asset Valuation has been submitted for comment to external auditors.</p> <p>Highways have developed common Greater Manchester unit rates for carriageway and footway replacement.</p>	Trafford will be using unit rates developed by GMADE groups for Highways and Structures
<b>10.6 Lifecycle planning</b>	Whole life costing has been applied to the highways network and lifecycle plans produced	It is unlikely that work on valuation and lifecycle planning for structures can be undertaken before March 2006 given the work outlined in CoP milestones.

# Progress on Transport Asset Management Plan (TAMP)

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## 8.2.10 Wigan Metropolitan Borough Council

Element	Progress	Planned Actions
11.1 Overall progress	Wigan has established a working group to develop the TAMP and is working towards the production of a draft TAMP for March 2006	
11.2 Inventory	<p>Carriageways and Footways:</p> <ul style="list-style-type: none"> <li>● Adopted street map with road lengths</li> <li>● No. of gullies per street</li> <li>● Resurfacing history</li> <li>● No information on widths, lengths of footpaths, construction types</li> </ul> <p>No data on position and details of highway drainage, culverts and non-illuminated bollards</p> <p>Structures:</p>	<p>Continue discussions with GMADE Group to ensure uniform regional approach to levels of inventory</p> <p>To be completed by March 2006</p> <p>Further work to record locations of non-illuminated traffic signs, bollards, road markings, pedestrian guard rails, crash barriers, milestones and historical finger post signs to be completed by May 2006</p> <p>Other routes:</p>

## 8 Progress on Transport Asset Management Plan (TAMP)

Element	Progress	Planned Actions
	<ul style="list-style-type: none"> <li>● Collection and collation of structures data is underway</li> </ul> <p>Street Lighting</p> <ul style="list-style-type: none"> <li>● Comprehensive GIS based data system has been completed in December 2005</li> <li>● Linked to street gazetteer and incorporating work ticketing package</li> </ul> <p>Traffic signs and Road Markings</p> <ul style="list-style-type: none"> <li>● Waiting restrictions and associated signage contained in ParkMap system. PRN signs are on MapInfo system</li> </ul> <p>Highway Verges and Trees</p> <ul style="list-style-type: none"> <li>● Wigan Council Leisure and Culture Trust has a full inventory of highway verges. Trees are maintained as and when necessary</li> </ul> <p>PRoW:</p> <ul style="list-style-type: none"> <li>● Definitive Maps completed</li> <li>● Some routes in the former County Borough have not been surveyed and mapped but should be completed during 2006</li> <li>● Information on status of footpaths and structures available</li> </ul> <p>Collation of footpath signage details nearing completion</p> <p>Car Parks</p> <ul style="list-style-type: none"> <li>● Locations are recorded, although there is insufficient data for strategic management</li> </ul>	<ul style="list-style-type: none"> <li>● Currently addressing data requirements for other routes (such as in parks, canal towpaths etc)</li> </ul>
<b>11.3 Condition</b>	<p>Spending is currently targeted at major asset groups, and very little information is kept on smaller asset groups.</p> <p>Highways:</p> <ul style="list-style-type: none"> <li>● PMS system has been linked with GIS to give map based representations of highway condition, collating analysis of SCANNER, CVI and SCRIM results</li> <li>● DVI survey results for footways</li> </ul> <p>Structures:</p> <ul style="list-style-type: none"> <li>● Each structure inspected biannually, but not digitally recorded</li> </ul> <p>Street lighting:</p> <ul style="list-style-type: none"> <li>● Inspections and electrical testing data are maintained on digital system allowing accurate profiling of stock</li> </ul> <p>PRoW</p> <ul style="list-style-type: none"> <li>● Inspection regime in place</li> </ul>	<p>Review of asset condition data to be continued</p>

# Progress on Transport Asset Management Plan (TAMP)

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Element	Progress	Planned Actions
	Review of asset condition data underway	
<b>11.4 Levels of Service</b>	<p>Wigan are looking at 4 threads of work in this respect:</p> <p>Cognisance taken of legislative framework</p> <p>Public consultation – what are the reasonable expectations of customer and Council?</p> <p>Ensuring consistency with LTP, Best Value Performance Plan and other corporate strategies</p> <p>Adoption of Codes of Practice</p>	To be reviewed as part of the development of the TAMP
<b>11.5 Asset Valuation</b>	<p>Gross replacement costs for street lighting have been established</p> <p>Agreed carriageway replacement costs through GMADE Group</p> <p>Agreement of rates for footway replacement costs imminent.</p>	<p>Discounted asset value for street lighting to be determined</p> <p>An interim valuation of a sample of all assets is due for completion in March 2006</p>
<b>11.6 Lifecycle planning</b>	Lifecycle planning has been developed for street lighting and illuminated signs.	Lifecycle plans for other asset groups to be considered as part of the development of the TAMP
<b>11.7 Forward Planning</b>	Initial approaches to risk management and cost-benefit analyses will be largely qualitative.	<ul style="list-style-type: none"> <li>● Further work to develop value management and quantitative approaches.</li> <li>● Intend to look at 10 year time horizon for forward plan</li> </ul>

# 8 Progress on Transport Asset Management Plan (TAMP)

## 8.2.11 Manchester Airport

Element	Progress	Action Points
<b>12.1 Overall Progress</b>	Manchester Airport are nearing the completion of their TAMP for March 2006. The airport has regular liaison and consultation with some Greater Manchester Authorities.	
<b>12.2 Inventory and condition data</b>	<p>All assets within the airport are covered by the Airport's Planned Maintenance System (PMS), and each individual asset has a unique identity on the system. The assets are in 2 categories</p> <p><i>Landside:</i></p> <p>Roads:</p> <p>With the exception of some key approach roads, all roads are under the Airports ownership and inventory system.</p> <p>Structures: Inspected on a 5 yearly basis by Airport and Manchester City Council</p> <p>Car Parks: Managed by Terminals Engineering</p> <p>Cycle routes: Managed by Terminals Engineering</p> <p>Hard landscaping: Managed on a reactive basis.</p> <p>Soft Landscaping: managed on planned preventative basis</p> <p>Street Lighting and traffic signs: maintained by Airfield Systems</p> <p>Concourse and Mezzanine leading to Rail Station: Maintenance is out-sourced to Mowlem.</p> <p><i>Airside</i></p> <p>Runways</p> <p>Stands</p> <p>Runways and taxiway network is managed by Airfield Maintenance. These are subject to constant inspection.</p>	
<b>12.3 Levels of service</b>	The Ground Transport Strategy, draft development strategy and Environment Plan all detail policy and targets up to 2015. Service levels also take into account projected increases in passenger numbers, with a forecasted doubling of usage of public transport to access the airport.	
<b>12.4 Asset Valuation</b>		<ul style="list-style-type: none"> <li>Planned Maintenance System contains detailed inventory and condition information with which to produce a valuation</li> </ul>

# Progress on Transport Asset Management Plan (TAMP)

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## 8.2.12 Greater Manchester Transportation Unit

Element	Progress	Action Points
<b>13.1 Overall Progress</b>	<p>GMTU have a comprehensive inventory of Automatic Traffic Counting and Automatic Cycle Counting installations covering the following information:</p> <ul style="list-style-type: none"> <li>● Sensors –these are usually sub-surface inductive loops one or two per lane, but may also be passive infra red (PIR) sensors (for some cycle monitoring) or radar</li> <li>● Housing for the data logger –usually an aluminium cabinet at the back of footway, but can be a buried polycarbonate case for some cycle monitoring sites</li> <li>● Power supply –can be from internal batteries, solar power or mains</li> <li>● Remote monitoring facility –can be landline, radio package or GSM</li> <li>● Sub-surface ducting carrying sensor connections, power supplies and telecommunication to the data logger</li> </ul> <p>Locational information</p> <ul style="list-style-type: none"> <li>● Road Number (where applicable)</li> <li>● Road or route name</li> <li>● Local Authority Area</li> <li>● Easting and Northing Ordnance Survey Grid Reference of the centre point of the detection zone</li> <li>● GMTU site reference number</li> <li>● Site Counting Type (traffic/cycles/volumetric/classifier/speed)</li> <li>● Site detection type (loop/infra red/radar)</li> </ul>	<p>GMTU will be further progressing development of the TAMP post March 2006</p>

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### 8.2.13 Greater Manchester PTE

Element	Progress	Planned actions
<b>14.1 Overall Progress</b>	GMPTE have drafted a TAMP for the property section, covering bus stations and minor infrastructure. The TAMP provides a key document to link LTP objectives and GMPTA policy, in particular the 2001 property maintenance policy, with maintenance programming. It will also outline sustainability objectives in the light of EU objectives.	
<b>14.2 Inventory</b>	GMPTE have a comprehensive central data system embedding an asset register covering all bus stations and minor operational property, and a planned and reactive maintenance system.	
<b>14.3 Condition</b>	<p>Condition assessments are undertaken on a 5 yearly basis (20% of stock annually), and reviews are undertaken annually in the light of reactive maintenance information and capital works undertaken on the stock.</p> <p>A schedule of priority categories (from 1-4) is used for prioritisation for planned and reactive maintenance. This will enable the identification of capital and revenue fund requirements.</p>	
<b>14.4 Service levels</b>	Service levels have been set within the property maintenance policy. In addition links to LTP targets have been clarified.	
<b>14.5 Forward programming</b>	A forward plan identifies appropriate maintenance intervention levels according to the priority categories mentioned above, combining information on capital works programme.	

### 8.2.14 Greater Manchester Urban Traffic Control

Element	Progress	Planned actions
<b>15.1 Overall Progress</b>	<p>UTC are producing an Asset Management Plan for its range of electrical and communications equipment for traffic control.</p> <p>Key to this is the development of a data system, 'PREFECT' which will contain detailed fault information enabling the identification of fault rates for assets. This in turn will guide the identification of capital and revenue options for maintenance of the stock</p>	Site inspections to cross-check accuracy of asset information should be completed by the end of 2005/06.