

HERTFORDSHIRE HIGHWAYS INTEGRATED WORKS PROGRAMME AND FORWARD WORKS PROGRAMME

Appendix A – Categories of Schemes and Prioritisation

A summary of the main programmes of work promoted by Hertfordshire Highways each year are summarised below with some background on how schemes are identified, categorised, selected and prioritised within each programme.

For full details Members are recommended to refer to the Environment Department's 'Highways and Transport Programme Entry' document for overall guidance and the core procedures of how IWP and FWP schemes are identified, categorised, selected and prioritised.

A1 Carriageway Refurbishment Schemes

The objective of our strategy, using an asset management approach, is to optimise the works programme to keep the average condition of the network as good as possible for a given level of investment.

Condition data is derived from the results of various surveys but most importantly:

- SCANNER (machine-based condition survey) – A,B & C Roads
- CVI (Coarse Visual Inspection) – U Roads

Additional information (used where it is available) is:

- Age of the carriageway
- Historical work undertaken (both schemes and reactive repairs on faults)
- Strength/construction of the road
- Traffic counts

With this data it has been possible to model the likely deterioration of each section of road and identify an optimum programme of maintenance activity that best improves the condition of the network overall with the funding available. By considering the overall condition of the carriageway construction and the rate of deterioration of road sections across the network the maintenance strategy gives a priority to sections whose residual life will be extended substantially with modest intervention. This can mean that the worst looking carriageway surface will not always be prioritised for immediate major refurbishment and the programmed action may involve some low cost short term patching and dressing, for example. In essence the strategy adopts the principle of "a stitch in time saves nine".

Identifying situations where earlier treatments of faults will prevent further deterioration of the asset while returning the asset to better condition entails developing alternative repair strategies over a longer period. This will then

enable cost analysis, which will minimise the whole of life cost over the whole asset.

The early intervention strategy has two advantages:

- The cost of the repairs is lower the earlier in the deterioration process they occur. More assets can be repaired for the same amount of expenditure.
- With early repairs the overall condition of the asset is kept at a higher value.

Carriageway refurbishment schemes are initially identified by using the deterioration modelling; proposed scheme lists are then refined using local engineering judgement.

A2 Footway and Cycleway Refurbishment Schemes

Footway and cycleway refurbishment schemes are initially identified and nominated by District Managers and their local teams (in a manner similar to drainage). They are then prioritised against other nominations across the County by consideration of:

- Hierarchy of the footway/cycleway
- Condition of footway/cycleway
- Proposed treatment
- History of insurance claims
- History of reactive work previously undertaken

A3 Drainage Schemes

Drainage improvement schemes are initially identified and nominated by District Managers and their local teams (in a manner similar to footways and cycleways) to tackle identified drainage problems. These are then prioritised against other nominations across the County by consideration of:

- Severity of the problem for pedestrians
- Severity of the problem for vehicles
- Frequency of the problem
- Repeat maintenance caused by the problem
- Potential pollution caused by the problem
- Accidents and/or claims linked to the problem

A4 Integrated Transport Schemes

Integrated Transport Projects (ITP) cover improvements to the network including provision for buses, cyclists, pedestrians and traffic management. This also includes the Casualty Reduction schemes ([see A5 below](#)).

ITP schemes are identified, selected and prioritised through Target Delivery Groups in line with Hertfordshire's Local Transport Plan (LTP) objectives/targets or to the Corporate Plan priorities, and are devised to deliver specific transportation objectives in areas such as:

- Casualty Reduction

- Speed Limit Compliance
- Congestion
- Accessibility
- Air Quality
- Quality of Life
- Cycling Trips
- Safer Routes to School

For further details Members are recommended to refer to the Environment Department's 'Highways and Transport Programme Entry' document (particularly Section 7: Selection and Monitoring) for overall guidance and the core procedures of how IWP and FWP schemes are identified, categorised, selected and prioritised.

A5 Casualty Reduction Schemes

Casualty Reduction schemes are identified based on analysis of police collision data and the ranking system used prioritises schemes and initiatives in locations where people have been killed or seriously injured. Each location is reviewed to assess if a pattern of collisions has formed that could be reasonably addressed. Schemes can be based around junctions, bends, routes or areas. Links are also made to the wider road safety picture, by combining with enforcement or educational programmes.

A ranking list is run and analysed annually, from which schemes and initiatives are selected. As such the Casualty Reduction programme forms part of the IWP and not the FWP. Because it is necessary to use the most up-to-date accident data possible when prioritising this programme, the decisions regarding the exact schemes to be included in the IWP are normally finalised later than in most other programmes.

A6 Traffic & Environmental Schemes

Traffic and Environmental (T&E) Schemes are initially proposed by communities that perceive a problem with traffic speeds or volumes, pedestrian facilities or quality of life issues on a road. The District Manager and their local teams collect all such requests and produce a local 'long list' on which a ranking exercise is carried out. The top few schemes off the list in each district are then put together centrally to form a County-wide short list. These short-listed schemes are ranked using a well-established formula that takes into account the following factors:

- Hierarchy including:
 - Traffic flows
 - Hierarchy of road
- Safety including:
 - Speed
 - Accident history
 - Presence of vulnerable users
- Environment including:

- Nature of the area
- Visibility & parked vehicles
- Presence of footways and crossing points
- Lorries

Note: Once the need for a T&E scheme is established, it would normally be funded and delivered through one of the other programmes such as Integrated Transport, Casualty Reduction or Discretionary, as appropriate to the scheme in question.

A7 Discretionary Schemes

The Discretionary programme enables the local Highways Joint Member Panels to invest in local priorities. These schemes are generally smaller and more localised.

Any significant Discretionary schemes need to be identified in advance and included within the IWP for coordination.