

## CABINET

8 April 2014

<b>Title:</b> Highways Funding - Capital Schemes	
<b>Report of the Cabinet Member for Environment</b>	
<b>Open Report</b>	<b>For Decision</b>
<b>Wards Affected:</b> All	<b>Key Decision:</b> Yes
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<b>Accountable Divisional Director:</b> Robin Payne, Divisional Director of Environment	
<b>Accountable Director:</b> Darren Henaghan, Corporate Director of Housing and Environment	
<b>Summary</b> <p>This report sets out the need to invest £4,176,000 in 2014/15 to maintain the non-principal road network, highway structures, replacement of life expired lighting columns and plan in schemes to improve road safety and traffic flow through engineering solutions. The work specified is based on an assessment of the areas of highway most in need of investment to either:</p> <ul style="list-style-type: none"><li>• reduce the risk of the asset deteriorating and falling below an acceptable standard.</li><li>• improve road safety by implementing speed reduction or traffic calming schemes.</li><li>• Improve energy efficiency of assets or prolong the life of assets so that they are maintained to the statutory standards outlined by the Department of Transport in their codes of practice.</li></ul>	
<b>Recommendation(s)</b> <p>The Cabinet is recommended to agree:</p> <ol style="list-style-type: none"><li>(i) The inclusion in the 2014/15 Capital Programme of a one-year highways investment programme totalling £4,176,000 funded through capital receipts (£3,976,000) and Section 106 (£200,000);</li><li>(ii) The funding profile investment of £2,408,000 to deliver priority highway maintenance works (carriageway and footpath resurfacing) primarily on the non-principal and unclassified roads as detailed in Appendix A to the report;</li><li>(iii) To authorise the Corporate Director of Housing and Environment, in consultation with the Cabinet Member for Environment, to vary the priority list if other roads deteriorate to such an extent as to be considered for inclusion during the course of the programme;</li></ol>	

- (iv) The funding profile investment of £1,417,500 to upgrade 810 life-expired concrete street lighting columns deemed structurally unsound, in order to meet health and safety standards;
- (v) The Safer Stronger Communities Select Committee recommendation for road safety funding estimated to be £100,000 for road safety and traffic schemes; and
- (vi) The funding profile for the investment of £250,000 to carry out structural repairs and maintenance on all bridges and culverts to bring them up to standard.

## **Reasons**

The Council has a responsibility to maintain the public highway network in accordance with the Highways Act 1980.

By preparing a programme of major works for the next year, the highway condition will be improved. The highways asset management database will be reviewed to reflect these improvements which will enable the Council to respond to major defects in terms of temporary and/or localised repairs.

By developing and implementing road safety and traffic schemes the Council will be in a position to improve road safety and also to react to incidents throughout the year.

## **1. Introduction and Background**

- 1.1 The London Borough of Barking and Dagenham is the Highways Authority for 327km of road network, 20 thousand street lights and 100 bridges & culverts. Currently the maintenance of the highways is mainly done on a reactive basis with some medium term planning of its assets based on safety surveys and complaints received.
- 1.2 In the past four years the Council has maintained a programme of investment aimed at improving and prolonging the life of all highway assets. This represented a firm commitment to improving the public realm of the borough through localised schemes to improve shopping parades, road safety schemes, highways investment programmes and street lighting schemes to renew columns and replace lamps to reduce energy consumption.
- 1.3 The Council has a responsibility to maintain the public highway network in accordance with the Highways Act 1980. Regular safety inspections are carried out of footpaths, carriageways, street lights etc these are recorded on a data base. Action to make safe and repair is carried out if the damage is within the Councils intervention levels which are in accordance with the Department of Transport's (DFT) Code of Practice "Well Maintained Highways".

## **2. Asset Investment Programme – Carriageway Resurfacing**

- 2.1 The Council is responsible for the condition of highway. The Principal Road Network i.e. the main roads through the borough excluding the A13, A406 or A12

trunk roads, are funded through the Local Implementation Plan (LIP) allocated by Transport for London. Due to successful bids for funding from Transport for London over many years, our Principal Road Network is amongst the best in London.

- 2.2 The remaining roads are classified as the Non-Principal Road Network (classified B&C roads) i.e. heavily trafficked roads, often bus routes and main routes for lorries etc. There are also borough roads which tend to be less heavily trafficked residential roads. The maintenance of these is solely through Council budgets. Although the Council has been very proactive in recent years and carried out effective investment programmes, asset management is dynamic. Highway conditions are influenced by severe weather and road treatments such as salting and gritting. A road surface that may have passed a safety inspection one year may break up in a very short space of time as water can quickly get beneath a crack or defect and this starts to erode the entire foundation, which in turn leads to irretrievable damage.
- 2.3 A cyclical programme of safety inspections identifies potholes and defects that can be rectified by carrying out patch repairs. However, if the road has already been patched several times or more than 25% of the road requires work, it does not make economical sense to continue repairing; instead resurfacing or reconstruction would be required. In the same vein, if the foundations have started to collapse there is no point funding patch repairs or carrying out preventative treatments as they will not last on an unstable foundation.
- 2.4 Conditional surveys have been carried out on the Non-Principal Road Network. The surveys are from the annual SCANNER road condition Indicator Survey NI169 2012/13 (B&C road Nodal Network). Surveys have also been carried out on unclassified borough roads. The conditional surveys are based on a Highway Condition Index used by highway authorities to assess the need for repair. Values of 70+ show that there is a requirement for significant work to be undertaken and all of the roads proposed in this report are above 70+.
- 2.5 The list in Appendix A outlines the costs involved per road for carriageway resurfacing of all the Non-Principal Road Network roads requiring resurfacing and the worst unclassified B&C road. Costs are based on quotes calculated from the schedule of rates with the term contractor for planned highways maintenance, Marlborough Surfacing. These costs are a worst case scenario as a true cost cannot be agreed until the work on each location begins. All work carried out will be project managed by the Capital Delivery Unit. The quotes include the cost of the project management and traffic management. Governance of the programme will be through the Highways Board chaired by the Divisional Director for Environment.
- 2.6 It should be noted that each year in November the items within the term contracts schedule of rates will be inflated in accordance with the Baxter's indices. The Baxter's increase is the annual government uplift in labour, plant and material costs that the industry applies to contracts so that schedules of rates are adjusted. Therefore, the costs will increase over the two year programme but this has been taken into account.
- 2.7 In order to make the best possible use of the capital investment and to ensure the area is uplifted, additional works will take place as part of the programme. For

example we will consult residents in roads that have speed humps to gain their thoughts on replacing them and won't simply assume they are needed. We will also increase road safety by implementing road markings, parking bays; parking restrictions i.e. double yellow lines.

- 2.8 A communications project will run in tandem with the programmes to describe the works underway in a wider context and to demonstrate the Council's commitment to invest in the highway. In the case of civil engineering work on the highway there will also be storyboards on display when contractors are working to give information to residents and visitors on the work that is underway, investment being made and clear points of contact. As with previous programmes great use will be made of web, social media and press releases to keep residents updated.

### **3. Asset Investment Programme - street lighting**

- 3.1 The Highways Asset Management Plan will highlight the problem of ageing lighting installations. There are significant financial implications to be addressed as a result of this but if not accomplished; there will be an increasing risk of structural failure of lighting columns with potential property damage, injury or even death to road users. Good street lighting is essential in today's social and economic climate and contributes to the Council's corporate objectives of achieving Safe and Sustainable Development. The provision of good quality street lighting within all urban streets and indeed many rural roads has become more important as traffic volumes and other factors such as anti-social behaviour have increased.
- 3.2 Many thousands of street lights were installed in the nineteen sixties and early seventies and these units have long passed their design life and have become a liability. Historically, an under investment in column replacements has created the situation where almost a third of the stock is still in need of replacement over the next few years.
- 3.3 The older installations utilise high pressure sodium lamps that are characterised by their monochromatic orange light and recent surveys of residents show that white light is now the preferred option. All new installations in estate and side roads will have white light lamps.
- 3.4 A great deal of work has already taken place since 2009 to replace the oldest portion of the street lighting asset i.e. concrete columns in various locations across the borough. They were prioritised by programming according to size of location. This allowed for ease of changeover and also offered the most positive effect in terms of visual impact and lighting levels.
- 3.5 The expected life of a concrete or aluminium column is approximately 25 to 30 years. We installed our last concrete column in 1976 and aluminium in 1980 making the units remaining in the borough at least 5 to 15 years past their life expectancy. Even after the investment of the past 4 years, there remain 3,225 of life expired columns within the borough. They are all in residential streets and pose the biggest risk to safety if we do not replace them. The Council needs to replace the oldest columns constructed in concrete over the next year. As well as improving the condition and life expectancy of the street lighting asset this gives the Council the

ideal opportunity to install LED lanterns in these locations across the borough, providing us with a more efficient lighting source and a far cheaper energy bill.

- 3.6 The majority of the columns are 5m in height and have a 70w SON (high pressure Sodium) lamp – the LED equivalent lantern only uses between 30 and 40 Watts, effectively halving the consumption for each column. LED is the recognised and modern way forward for highway lighting. All LED units are fully CMS compatible i.e. controlled remotely, so that dimming and trimming is an added option that can reduce output and timing by a negligible amount to reduce energy and increase savings.
- 3.7 The capital investment required is £1,750 per column installed complete with LED lanterns. This report is proposing a one year programme to replace the entire stock of concrete columns which pose the greatest risk of failure. Therefore a total investment of £1,417,500 is required.

#### **4. Asset investment programme - road safety and traffic schemes**

- 4.1 There are a number of schemes implemented each year to provide improved road safety and traffic management throughout the borough. This is in the form of zebra crossings, speed humps, chicanes etc. As well as improvements to road layouts such as converting a road to one way, restricting traffic flow in a certain direction, additional signage, adding in parking capacity and adding double yellow lines to corners etc.
- 4.2 Spend on road safety and traffic schemes are restricted to those that are affordable through the LIP allocation each year. Priority is given to fund schemes that are the most urgent and most likely to mitigate risk of accident or injury. Therefore the LIP allocation is committed at the start of each financial year leaving no funding for the Council to react to serious incidents that occur during the year. For example, if there is a fatality that arises from a road traffic collision there is a need for the Council to review the circumstances and if required adjust the traffic scheme to mitigate the risk of an incident reoccurring. Currently, there is no budget allocation to react in this way and funding is often taken from the reactive highways budget to put in place interventions. This puts a pressure on the general fund that is meant for road repairs and street lighting maintenance. There are also a large number of schemes that get highlighted by residents and Members throughout the year, which although of great benefit, have not been progressed as there is insufficient budget available, e.g. double yellow lines on junctions, school crossings etc.
- 4.3 The Safer Stronger Communities Select Committee has recently reviewed the effectiveness of road safety measure and has recommended that additional a new road safety strategy is developed for which capital funding would be required. In addition a Schools Summit took place in October 2013 to start addressing the growing issue of traffic congestion and risks to road safety from inconsiderate road users. As a result there may well be new schemes generated borough wide for which funding will be required.
- 4.4 Traffic and road safety schemes tend to be costly as they involve design, civil engineering, consultation, traffic management and traffic management orders. It is difficult to place a price on individual schemes but as an example the speed hump

scheme in Salisbury Ave cost £40k to implement in full. In line with the recommendations of the Safer Stronger Communities Select Committee scrutiny review of road safety Cabinet are asked to make an additional £100,000 available over the next year.

## **5. Asset Investment Programme – bridges and structures**

- 5.1 There are 100 structures within LBBD, all either bridges or culverts. In accordance with the Highways Act 1980, the code of practice established a list of milestones (or recommendations) to ensure that bridges and culverts are safe to use by being inspected and maintained. These broadly comply with Government requirements to provide structures that are fit for purpose, achieve the level of service and performance at minimum whole life costs, assist in any defence of future litigation brought against the Council and align with current and emerging Government policy objectives.
- 5.2 Without ongoing maintenance the Council's bridge stock is at risk of significant deterioration leading to more costly intervention for repairs, bridge and long term road closures, or potentially failure of the bridge itself. The Council bridges and culverts are in need of repair and to ensure the asset is made safe and preserved for the future. It is estimated this will require a £250,000 of capital funding that will be profiled according to priority. A programme of works will be approved by the Highways Board and an appropriate contractor appointed.

## **6. Consultation**

- 6.1 All changes to the highway network are first consulted on with ward Members, residents and partners such as the Metropolitan Police, London Fire Brigade etc.

## **7. Financial Implications**

Implications completed by: Carl Tomlinson, Finance Group Manager

- 7.1 In accordance with the Highways Act of 1980 the Council has a statutory function to maintain the public highway network. In the past three years there have been approved investments in the capital programme of £32.4m of which £29.3m has been delivered and £3.5m is projected to be delivered in 2013/14. These investments have been made in planned maintenance of resurfacing and reconstruction works on the roads in the borough that are in the worst condition, as well as essential replacements of street lights.
- 7.2 In previous years the council has benefited from additional emergency revenue funding from Department for Transport (£0.199m in 2011-12) for winter maintenance, which has enabled additional works to be carried out in terms of reactive maintenance. It was announced in the June 2013 Spending Review, that £6bn will be made available to local authorities for road repairs, however the timeframe for this will be between 2015/16 to 2020/21 and any allocation to LBBD has not been confirmed.

- 7.3 The final source of funding has been through Transport for London via the Local Implementation Plan (LIP) grant to implement road safety initiatives such as zebra crossings and speed humps. This is approximately equal to £0.1m per annum.
- 7.4 This report seeks a capital investment of £4.176m in 2014/15 which will be funded through capital receipts (£3.976m) and Section 106 contribution (£0.2m). A summary of the schemes proposed and the costs are as follows:

Scheme	2014-15
	(£m)
Planned Highways Maintenance	2.408
Street Lighting	1.418
Bridges and culverts	0.250
Road Safety and Traffic schemes	0.100
<b>Total scheme costs</b>	<b>4.176</b>

- 7.5 Any revenue implications such as any reactive maintenance costs which may arise as a result of this investment would need to be contained within the Highways service's existing revenue budgets.

## 8. Legal Implications

Implications completed by: Paul Feild, Senior Governance Lawyer

- 8.1 Decisions about highways and lighting carry significant legal implications to the Council. The Council is a Highways Authority under the Highways Act 1980. Section 41 of the Highways Act places a duty on the Council to maintain the highways for which it has a responsibility. In addition the common law expects the Council to ensure that the highway is in a safe condition.
- 8.2 As there are a great many miles of highway and footpath in the borough, potentially there is a risk that over time the condition of some highways may present a danger. To minimise this risk highway inspections are carried out and plans of works must be devised. The Highways Act at section 58 provides a statutory defence to claims of failure to maintain if a Highways Authority can show it has taken such care as is reasonable so as to ensure that the part of the highway where there is a claim was not dangerous. In determining whether the Council has taken reasonable care the courts will consider the character of the highway, the traffic which uses it; the standard of maintenance appropriate for that highway; the state of repair in which a reasonable person would have expected to find the highway and whether the highway authority knew, or could reasonably have been expected to know, that the condition of the highway was likely to cause danger. If it is not possible to repair that part of the highway immediately warning signs are expected to be displayed.
- 8.3 It therefore follows that prioritising highways, bridges and lighting that present the greatest risk of danger to life and property is the correct strategy to protect the community and reduce the risk of legal challenge and subsequent liability. As resources are limited it is of vital importance to have systems for inspections and prioritisation of repairs and maintenance such as a Highways Asset Management Plan. The approval of use of such tools is one of the key purposes of the recommended action in this report, as without systematic managing the condition of

the boroughs highway network there could be an increase in insurance claims that could not be defended.

- 8.4 As part of the works outlined in this report it is intended that the borough should take positive measures in the programme to new forms of illumination that utilise significant less power consumption for the same light output. Less energy used for lighting means that less carbon is produced as an unwanted by-product of the Council's energy needs. This measure apart from delivering savings in accordance with Best Value legislation, will assist the Council contributing to reducing its and the nations carbon footprint in compliance with the Climate Change Act 2008 requirement (to cut emissions of green house gas emissions by 80% below 1990 levels by 2050), and its obligation to perform its responsibilities in a sustainable way. It is likely that in the near future carbon reduction will become a legal obligation (in Scotland it is a legal requirement); so it is sound practice to anticipate the change by installation of lower carbon emission solutions especially where they will deliver immediate savings in running costs and enjoy longer life-times between maintenance and refit.

## 9. Other Implications

- 9.1 **Customer Impact** - If the highways network is not maintained residents are directly affected by the condition and therefore safety of the boroughs highway assets deteriorate. There is a risk of damage caused by the collapse of street lighting columns, bridges and culverts to persons and to vehicles as well as damage and danger from potholes in carriageways. This may lead to successful claims for compensation against the council increasing. Not only will this affect the premium, but also the reputation of the Council. In terms of road safety, the Council has a duty to manage the highway network and to ensure it is safe and effective for both traffic and pedestrians. The proposal is to replace the life expired columns as planned and install an LED lantern in place of the traditional SON or Cosmopolis type which would give a white light solution that is aesthetically pleasing and promotes a safe and secure feeling that is popular wherever it is installed with both residents and emergency services alike.
- 9.2 **Property / Asset Issues** - If this programme is not put in place then the condition of the boroughs roads will deteriorate further and the risk of failure will increase. The borough's highway assets i.e. street lights, structures, carriageways etc, are held on a database. Any work carried out either planned or reactive is updated in the database so that condition can be assessed and investment required.

**Background Papers Used in the Preparation of the Report:** None

### List of appendices:

- **Appendix A** – Proposed Programme of Non-Principle and Unclassified Roads to be resurfaced during 2014/15.