Committee(s)	Dated:
Streets & Walkways Sub Committee	24 November 2017
Subject: Highway Maintenance Efficiency	Public
Report of: Director of the Built Environment Report author: Ian Hughes, Assistant Director (Highways)	For Information

Summary

The Department of the Built Environment (DBE) and their term highway maintenance contractor, JB Riney, are responsible for the construction, maintenance and safe repair of highways, lighting and street furniture for most of the Square Mile.

DBE has delivered a 'steady state' position to nationally accredited standards over recent years ie the network as a whole is getting no worse, and if anything, it has slightly improved. Despite past budget cuts, this has been done by capitalising on additional sources of investment, through service efficiencies and by using better data and analysis to inform a more considered highway maintenance regime.

This approach has ensured that only around 7% of the City's road network requires resurfacing at any one time, accident rates for trips and falls remain extremely low, and projects such as the switch to LED lighting ensure that the City is responding to the challenges of sustainability, energy saving and budget constraints.

However, detailed analysis suggests that the number of occasions where Riney are completing temporary (as opposed to permanent) repairs is increasing, typically because fixing all the identified defects within the budgets available requires cheaper, more affordable short term materials to be used.

In addition, DBE's local risk budget for road resurfacing (£266k pa) currently represents less than half the target spend (£683k pa) necessary to replace streets in the 20 years before they typically wear out. That leaves a funding gap currently filled through TfL grants, major development schemes and DBE income from building site licences, creating a dependency on TfL's budget position and the buoyancy of the City economy.

This residual risk of a funding shortfall is also relevant given the City's historic expectation that its highways should be maintained to the highest of standards. This is exemplified by the high inspection frequencies embedded in the Riney contract, as well as various specification details, such as the very definition of what is a pedestrian trip hazard worthy of repair.

A similar position can be found in relation to the maintenance of highway structures, where limited annual repairs and maintenance budgets mean that the condition of

the City's highway structures is gradually deteriorating in the long-term. This will inevitably result in several major set-piece Supplementary Revenue schemes being brought forward in future years.

This and other aspects of highway, street lighting and structural maintenance will be considered as part of a move towards adopting the Government's new Code of Practice for Well-Managed Highway Infrastructure by autumn 2018. This will be subject of a separate report early next year, but key to meeting the new Code's requirements will be setting out a formal highway asset management policy, which will involve engagement with Members regarding what quality standards, performance levels and funding streams the City wishes to adopt in the longer term.

Recommendation(s)

Members are recommended to:

- Receive this report;
- Receive a further report early next year regarding the Government's new Code of Practice for Well-Managed Highway infrastructure;
- Receive and consider a third report later next year that considers the quality standards, performance levels and funding streams for highway & public realm maintenance the City wishes to adopt in the longer term.

Main Report

Background

- 1. The City Corporation is the Highway Authority for all the public highway and City walkway areas in the Square Mile, except for those streets that fall within the Transport for London Road Network (or 'Red Routes').
- 2. As such, the City is responsible for maintaining its streets, footways and walkways, including:
 - inspecting them for defects, undertaking repairs and resurfacing;
 - changing or enhancing streets, through major projects or in conjunction with developments;
 - maintaining signs, bollards, street furniture, nameplates and drainage;
 - looking after all the powered & illuminated street furniture in the City, from road signs to street lights;
 - maintaining highway structures, from bridges and viaducts to pedestrian underpasses and utility pipe subways.
- 3. The City's term contractor, JB Riney, works in partnership with City officers to identify highway and electrical defects, prioritise them, order the works and undertake the repairs, resulting in a lean, joined-up and efficient process. The City then sample checks these works on a monthly basis to ensure they are correctly managed.
- 4. In terms of Highway Structures, these are inspected in accordance with the current code of practice by Arcadis Ltd, who are appointed by the City to perform

these duties and to advise on their status using a bespoke IT software package designed for recording the condition of structures (Bridgestation).

Current Position: Highway Maintenance Efficiency Plan

Highway Maintenance Efficiency Plan

- 5. The City's historic expectation, whether expressed by the public, by Members or by officers themselves, is to maintain the City's highway, lighting and structures to a very high standard. That assumption has been written into successive highway maintenance contracts, where standards (such as what constitutes a 'trip hazard' needing repair) are amongst the most stringent in the country, and where a high quality management approach is also required.
- 6. This has led to levels of service that are noticeably higher than most local authorities in London, and that many authorities can no-longer afford to match. In fact, when City budgets were historically larger, this sometimes led to repairs that could be deemed cosmetic, rather than necessary for safety purposes.
- 7. However, highway maintenance in the City has not been exempt from the current challenging funding environment. The last significant budget reduction was in 2012 when resurfacing budgets were halved, albeit two years later, Members defended those budgets against what would have been further reductions that had been identified in the Service Based Review process.
- 8. Given the nature of highway construction, the City's repairs and maintenance budgets are inevitably split between short-term reactive repairs and long-term planned investment. That means funding changes do not necessarily have immediately visible effects. However, if funds are limited, the need to keep the public safe from harm tends to drive a focus towards fixing the immediate problem, and the lack of planned investment only tends to become apparent in the longer-term.
- 9. In recent years, officers have applied a greater focus on formally monitoring the condition of the highway, which is an initiative also driven by CIPFA (the Chartered Institute of Public Finance & Accountancy) who now require accurate and auditable whole government accounting. They consider all highways, structures and street furniture as assets to be valued, monitored and depreciated, and CIPFA require annual financial reporting on this basis.
- 10. Officers in DBE have also followed Department for Transport Best Practice by establishing a Highway Maintenance Efficiency Plan that sets out to track the available survey evidence on highway quality, and to identify how budgets and operational activities can be delivered more effectively. This has led to a better understanding of whole life costing for highway materials, and a far greater focus on efficiency in highway maintenance generally.
- 11. However, in developing strategies for the future, understanding the expectations of Members and the public in terms of long term quality standards will be key. By autumn 2018, Parliament will have introduced a new Code of Practice for Well-Managed Highway Infrastructure, which will be the subject of a further report to Members early next year. However, the intention is that by next autumn & in parallel with the Code's adoption, Members will be asked to revisit the quality

standards for our highway, structure & public realm maintenance, with these views not only setting expectations on current and future performance standards but also helping to determine long-term funding needs.

Repairs & Maintenance

- 12. The City's carriageways have historically been maintained to a high standard, with an intensive maintenance regime that requires the 34 Category A roads in the Square Mile to be inspected once a fortnight, and all other roads once a month. This compares very favourably with other authorities, who typically inspect their streets monthly at best, or sometimes only annually.
- 13. As can be seen in Appendix 1, 52% of the current highways repair & maintenance budget of £1.6m is spent on footway repairs, about a quarter (24%) is used for roads maintenance, and the rest is spent on inspections, emergencies and street furniture.
- 14. In the last two years, officers have embarked on significant changes in how we monitor highway defects and problems. Riney's now track each and every defect they find on the City's electronic highways asset register, separated into different forms of defect such as potholes, road repairs, broken or rocking paving, granite sett damage, street furniture repairs, missing yellow lining etc.
- 15. The City and Riney review this data every month to consider the current and future spend profile, trends within this data, Riney's available resources, and ways in which inspections and repairs can be done more efficiently. This includes reviewing the longevity of particular highway materials to ensure increases in maintenance costs are not an unintended consequence of new public realm designs. Through this regular review & forecasting process, the maintenance budget has been fully spent in the last two years to within 1% of the available amount.
- 16. In terms of the trend data, this shows us that not surprisingly the number of defects tends to increase in the winter months (due to the adverse weather), but more fundamentally:
 - The number of repairs where Riney 'make safe' rather than undertake a permanent fix has gradually increased, to the point where by May 2017, the value of outstanding defects (where a 'make safe' has happened but a permanent repair is still required) was approximately £90k. This is because available budgets in the short term can better afford the cheaper temporary repair compared to the more expensive permanent repair, even though this only defers the eventual cost of the permanent work.
 - The overall number of defects being identified has increased in some key categories such as carriageway potholes, but not in others eg granite setts. This suggests our targeted approach to utilities over granite sett reinstatements has been successful, but the significant increase in building development and HGV traffic in recent years seems to be having an effect on road surfaces.

17. In terms of conclusions from this analysis:

- It re-emphasises the need to continue accurately profiling all Riney activity across the year;
- It suggests that a case can be made for a review of revenue expenditure to readdress the balance between 'make safe' and permanent repairs;
- It helps identify the causes of long-term deterioration to our road network that can be partially mitigated through proactive discussions with utilities and developers;
- It underlines the fact that an effective revenue maintenance regime still cannot prevent the cumulative deterioration of the network, which must eventually be addressed by full road resurfacing.

Road Resurfacing

- 18. Carriageway repairs are needed to compensate for a number of problems, particularly:
 - weathering caused by the natural expansion and contraction of the surface, amplified by water acting against the integrity of the construction;
 - loading from heavy vehicles driving along set tracks such as bus lanes or police check points, or caused by HGVs related to development activity;
 - the cumulative effect of utility excavations disrupting the integrity of the road base construction;
 - less hard wearing materials such as granite setts or anti-skid surfaces, typically used to deliver wider road safety benefits.
- 19. From an engineering perspective, a road surface typically starts to fail after 20 to 25 years, depending on the extent to which those factors outlined above might apply. The City has just over 410,000m² of carriageway surface, but based on the cost of resurfacing, and DBE's current local risk budget for road resurfacing (£266k pa, see Appendix 1), it would take over 50 years to resurface every single street in the Square Mile.
- 20. That resurfacing allocation has fallen by 69% in the last ten years, partly in response to negotiated efficiency savings in contract rates, but also from general departmental budget reductions. The obvious consequence is that the City's roads can wear out before they can be replaced, although financial realities across the country suggest this problem is common to probably all highway authorities in the UK.
- 21. To put DBE's local risk resurfacing budget into context, the following benchmarking data was published in the 2017 Annual Local Authority Road Maintenance (ALARM) survey. This collates information from highway authorities across the UK, and shows that if the City relied on DBE's resurfacing budget

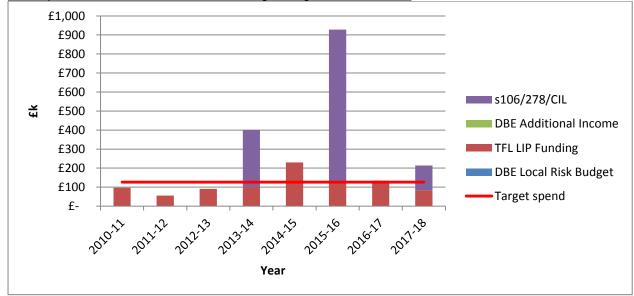
alone, it would be aligned with the national average but well below the London average for resurfacing frequency.

Class of Road	England	London	City of London
Principal	34 years	17 years	31 years
Unclassified	87 years	31 years	76 years
All classes	55 years	23 years	50 years

Avg length of time before roads are resurfaced

(NB: This table refines the above analysis into a more realistic spend profile, where funding is split between major (principal) roads and minor (unclassified) roads, with priority given to the former.)

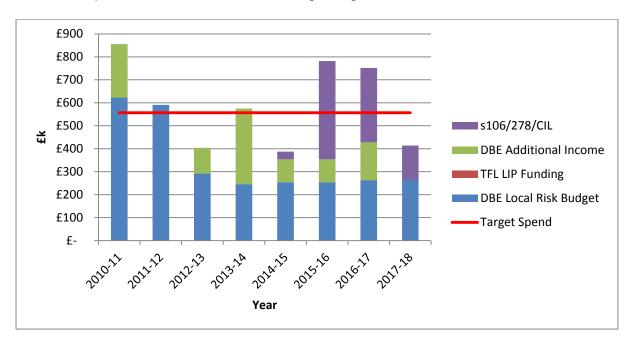
- 22. An alternative way to assess this funding gap is to calculate the budget required to resurface every street in the City within a 20 year cyclical programme. This would require £683k pa, and with DBE's local risk budget for resurfacing set at just £266k pa, this creates a funding gap of £417k each and every year.
- 23. In order to offset the long term risk that streets will deteriorate faster than they can be resurfaced, officers have had to target additional sources of funding to fill that gap, and work smarter in terms of where and how current budgets are spent. This has involved making use of TfL funding from the Local Implementation Plan process, diverting additional income from DBE's wider budget, or by using funds from transportation projects, urban realm enhancements or development-related highway schemes.
- 24. In terms of the City's major east / west bus route corridor (the Principal Road Network see Appendix 4), the City now relies on TfL's Local Implementation Plan grant to fund its resurfacing work, supplemented by occasional major investments on landmark schemes which are typically funded by TfL (again) or by s106/s278/CIL commitments. (The Target Spend red line in the table below indicates the annual spend of £126k pa that would be required on average to replace the PRN streets once every 20 years.)



25. Principal Road Network: Resurfacing Budgets & Sources

Note: 2013/14 scheme funding was for Holborn Circus, & 2015/16 was for Aldgate and 2017/18 was for St Botolph St and London Wall

26. As this table shows, TfL's LIP funding can sometimes be slightly short of the Target Spend, but the City's one off scheme investments help offset this shortfall over the longer term. However, it is well known that TfL budgets have recently been reduced as a result of funding reductions from Central Government, so the current level of LIP funding cannot necessarily be relied upon into that longer term.



27. Non-Principal Road Network: Resurfacing Budgets & Sources

Note: 2015-16 funded largely from Cycle Super Highways, 2016-17 from Cycling Quiet Ways, and 2017/18 from five schemes, including Bloomberg & Middlesex St Public Realm enhancement.

- 28. This table shows that in the last seven complete years, the City has significantly exceeded the Target Spend on the Non-Principal Road Network (£557k pa) in three of those seven years. It has also been on target twice, but on two occasions it has significantly under invested.
- 29. This table clearly illustrates the point that following Departmental Local Risk budget cuts & efficiency savings in 2012-13, DBE are now heavily reliant on funding beyond its local risk budget to meet more than half the necessary Target Spend each year. These additional sources of income are either linked to the City's currently high level of building activity (through income from scaffold & hoarding licences and road closure fees) or to third party schemes, creating a dependency on the buoyancy on the City economy as well as TfL's own budget position. Should either of these fall away, DBE's ability to resurface roads before they wear out will diminish.

Highway Monitoring

30. The Target Spend noted above is the amount needed to maintain a 'steady state' position (ie enough investment to maintain the current overall street condition). In order to understand how well the City is delivering on this 'steady state' ambition,

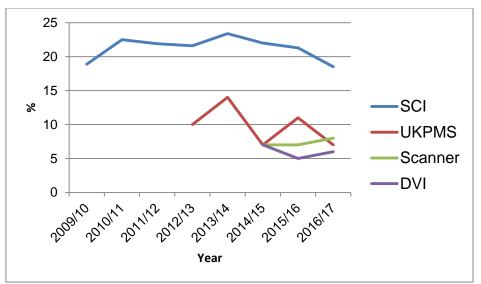
a number of metrics are used to monitor road condition, and using them together provides a balanced scorecard approach, accepting the pros and cons of each type of survey. Briefly, these audits are:

All Streets

- <u>SCI</u>: The City's own carriageway inspection survey called the *Street Condition Index*, using a bespoke set of City standards to rate the condition of every street.
- <u>UKPMS</u>: Visual inspections of all the City's footways and carriageways by an independent consultant to the nationally-accredited standard; the UK Pavement Management System.

Principal Road Network Only

- <u>SCANNER:</u> Automated radar carriageway condition surveys of the Principal Road Network by LB Hammersmith & Fulham, which measure the structure of the highway rather than just the surface to national standards (*Surface Condition Assessment of the National Network of Roads*).
- <u>DVI</u>: *Detailed Visual Inspection* surveys, also undertaken by LB Hammersmith & Fulham to national standards, of just the surface condition of the City's principal roads.
- 31. The City's UKPMS surveys are also mapped (see Appendices 2 and 3) and converted into a highway valuation which currently estimates the nominal replacement value for the City's highway (according to rules set out by CIPFA) at £191m. This same survey also allows us to calculate the depreciated value based on the amount of defects observed, in other words the value of the highway repair backlog, which in 2016/17 amounted to around £6.5m.
- 32. Using these four different measures, the table below sets out the percentage of the City's highway network identified as failing and requiring repair for the Principal Road Network and for all the City's streets together:



% of the network failing (data comparison)

National Accredited Standards (UKPMS, SCANNER, DVI)

33. According to these three broadly aligned assessment standards, the above information suggests that DBE has delivered a 'steady state' position over recent years ie the network as a whole is getting no worse, with around 7% of the network requiring repair. This has been done by capitalising on additional sources of investment, through service efficiencies and by using better data and analysis to inform a more considered highway maintenance regime.

City Expectations (SCI)

- 34. As noted earlier, the City has historically had higher expectations when it comes to highway maintenance compared to the nationally accredited standard. Against those City standards (the Street Condition Index noted above), the percentage of roads requiring resurfacing has typically been double the national score, and at the beginning of the decade was well over 20%.
- 35. However, through implementing the various efficiency measures outlined in the next part of this report, that percentage has declined for the past four consecutive years, meaning in that time we have moved beyond a 'steady state' position, and in terms of the City's expectations, we have achieved a real improvement in the overall condition of the City's road surfaces.
- 36. Nevertheless, by those standards, over 18% of the City's streets are still in need of resurfacing, so to maintain the current improvement and to better meet expectations given the long-term funding uncertainty, further investment is still needed. For example, our records also suggest that around a fifth of the City's road network has not been resurfaced in the last 30 years, and although some will still be fit for purpose, this illustrates that a significant percentage of our streets are already operating well beyond their original design life.
- 37. The above analysis is now starting to provide officers with sufficient information to develop a planned long-term strategy for highway maintenance, and part of that strategy will be to review the balance between short term reactive repairs and long term planned maintenance.
- 38. However, shifting the balance of funding towards planned maintenance has implications for short term priorities and public safety risks, so identifying alternative sources of funding for one-off cash injections may become the way forward. Both this and the question of long-term investment to meet the City's higher expectations will be considered as part of the Well-Managed Highway review that will be outlined in subsequent Committee reports next year.

Efficiency Measures

39. As noted earlier, a significant part of the recent improvement in road surface quality can be attributable to a range of initiatives implemented to maximise the efficiency of the available budget. Some of these include:

- <u>Limited use of specialist materials</u>: items such as granite setts and bespoke street furniture (which are typically more expensive to maintain and have a shorter lifespan) are now limited to where there are specific benefits, and ideally commuted sums are set aside for maintenance purposes.
- <u>Reinstatement protocols for granite setts</u>: utilities can now purchase specialist materials direct from the City's term contractor, allowing more first time reinstatements which minimise disruption to the road surface.
- <u>Targeted coring</u>: the detrimental effects to the network from utility works can reduce the life of the carriageway by up to 17%, even when reinstatements are done correctly, so monitoring (and enforcing) the quality of utility reinstatements is key (see Appendix 5).
- <u>Long term works programming</u>: co-ordination with the City Public Realm & Transportation teams ensures that streets liable for externally-funded enhancement in the medium to long term are maintained (in the short term) with that in mind.
- <u>Highway investment & depreciation projections</u>: this analysis sets out the anticipated depreciation rate of every street in the City, when it is likely to need resurfacing, when that resurfacing can be afforded and when it can be programmed.
- <u>Accident claims analysis</u>: analysis of individual accident claims with the Chamberlain's Insurance team serves to identify risks, issues and trends that can be fed back into the maintenance regime to minimise future incidents and claims.
- <u>Reviewing commuted sums from developers</u>: reviewing and standardising the process by which developments contribute to the repair of the highway after the completion of their project, and how funding can be secured for new highway maintenance liabilities around their building into the medium term.

Street Lighting

- 40. The majority of the City's street lighting stock is now over 30 years old and is reaching the end of its serviceable life. Maintenance costs are accelerating, energy costs are high and rising, and the Government's carbon tax on energy has further added to the cost of lighting the highway. As shown in Appendix 1, 44% of the total mechanical & electrical budget of £1.188m currently relates to energy costs, which would have been expected to rise by a further £250k by 2022/23.
- 41. In order to address these issues, a technical evaluation of Light Emitting Diodes (LEDs) has been underway for some time, together with a trial of Radio Frequency (RF) mesh technology to allow the City to control its street lights in

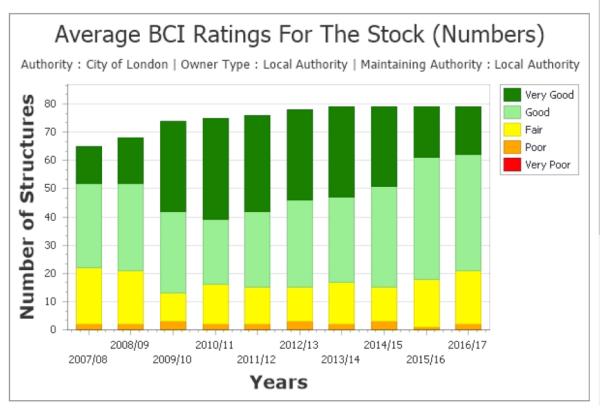
real time, as well as receive fault reports and energy readings for every single lantern in the Square Mile.

- 42. Taken together, these technological advances will not just reduce energy and maintenance costs by almost half, but will also enable Smart City sensors to function through the RF Mesh, and create the opportunity to establish a new street lighting strategy to enhance the City's public realm at night.
- 43. The value of the LED project is just over £4m, and obviously could not be afforded through standard revenue maintenance budgets. However, a successful business case based on the long term savings and opportunities from the technological upgrade enabled this to be funded from the On Street Parking Reserve. Gateway 5 approval was given in July, and the initial mesh 'canopy' is expected to go live early next year. Public consultation on the street lighting strategy is also expected to take place from January 2018, subject to Member approval before the end of this year.

Highway Structures

- 44. The City is responsible for maintaining nearly 80 highway structures, from bridges and viaducts to pedestrian underpasses and utility pipe subways. Unlike highways and lighting, responsibility for structures has remained with the Planning & Transportation Committee rather than being delegated to Streets & Walkways.
- 45. Excluding the Thames Bridges (which are dealt with separately because of Bridge House Estates), the current Gross Replacement Cost of these structures (to replace them from new) is just over £302m. However, with annual depreciation valued at around £1.5m pa, their Depreciated Replacement Cost (ie their value taking into account their current condition) is approximately £232m. By comparison, annual maintenance budgets are relatively small (£245k pa), so most repair works are managed as Supplementary Revenue projects through the Gateway process.
- 46. Arcadis are DBE's specialist consultant for structural inspection works, and were appointed on a six year contract to match the inspection cycle. As part of that appointment, they provide an annual report on the condition of the bridge stock using the London Borough Engineering Group's (LoBEG) asset management programme called 'Bridgestation'. This holds all the inspection reports, helps identify different expenditure profiles and calculates the bridge value as gross & depreciated replacement stock for the appropriate CIPFA returns.
- 47. The Bridge Condition Index (shown in the table below) illustrates that the City's stock of structures has generally deteriorated over the last five years, with modelling suggesting that approximately £75m in investment will be needed over the next 30 years, particularly on railway bridges and pipe subways.
- 48. In addition, the limited budget for maintenance work has led to the amount of outstanding work increasing, resulting in a small number of structures being closed to the general public. If sufficient investment is not made to prevent further

deterioration beyond the respective serviceability limits, further closures may be needed.



- 49. This background context illustrates why a number of significant projects have recently been identified and brought forward, including last year's major repair work on Tower Bridge. In terms of future priorities, these include replacing the bearings & waterproofing on London Bridge, waterproofing on Southwark Bridge and repairing the railway structures below Snow Hill and Holborn Viaduct.
- 50. Finally, the current inspection, repairs and maintenance regime complies with the current standards for highway bridges and structures, but the move to a more risk based approach (as outlined in the new Government Code of Practice) will likely result in a move away from the current more prescriptive approach. It is possible that such a switch will have further financial implications for our structures that will have to be considered.

Proposals

- 51. Having set out the current position in terms of highway surface, street lighting and highway structural maintenance, these aspects of DBE's performance are now under review in the context of a move towards adopting the Government's new Code of Practice for Well Managed Highway Infrastructure by autumn 2018. Details on this Code, and how well the City is aligned with its objectives, will be subject of a separate report early next year.
- 52. However, in the context of this report, key to meeting the requirements of the new Code will be setting a formal highway asset management policy, which will involve engagement with Members regarding what quality standards,

performance levels and funding streams the City wishes to adopt in the longer term. A report setting out these items for Members to consider will be brought forward later next year.

Corporate & Strategic Implications

53. Assumptions about how the City wants its highways & structures to be maintained are already implicitly embedded in its commercial term contracts. However, in the context of high public expectations and limited financial resources, a review of these performance levels and available budgets is necessary in order to help determine future expectations and long-term funding needs.

Health Implications

54. Maintaining a safe highway for the public is a statutory function that remains central to the City's core highway maintenance operation, and although the level of successful claims made against the City is minimal, this will undoubtedly remain the focus of any future policy proposal.

Conclusion

- 55. Through the intelligent use of data analysis, DBE are looking to ensure the City's highways, lighting and structures are safe and fit for purpose today and for the future. Standards remain high, the overall position remains positive and the City continues to innovate ways to improve its service delivery, such as the move to LED lighting and its Smart control system.
- 56. However, previous budget reductions have created a reliance on third party, capital and supplementary revenue funding to fill the funding gap needed to maintain and replace the City's highways, street lights and structures respectively. An understanding of these expectations, risks and issues will be central to establishing the new highway asset management policy required of the new Code of Practice.

Appendices

- Appendix 1 Highway, M&E and Structural Maintenance Funding: 2017/18
- Appendix 2 UKPMS Carriageway Condition Survey 2016/17
- Appendix 3 UKPMS Footway Condition Survey 2016/17
- Appendix 4 SCANNER & DVI Condition Survey 2016/17 (Principal Road Network)
- Appendix 5 Targeted coring results (2011-12 to 2016-17)

Background Papers (available on request)

 Annual Asset Management Report 2016-17: City of London Inspection and Management of Structures & Bridges

Ian Hughes

Assistant Director (Highways) T: 020 7332 1977 E: ian.hughes@cityoflondon.gov.uk

Appendix 1: Highway, M&E and Structural Maintenance Funding: 2017/18

Highway Repairs & Maintenance Funding

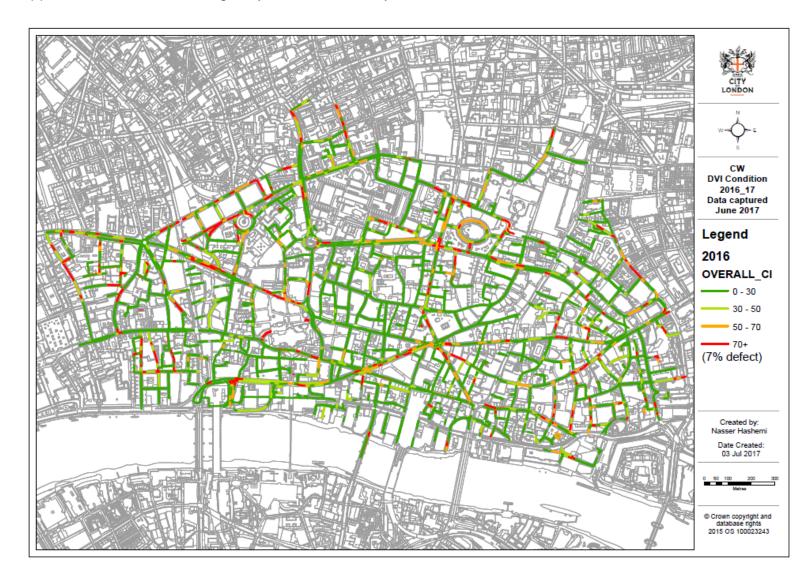
Туре	Amount (£'000s)
Footway repairs	850
Resurfacing	266
Road surface repairs inc granite setts	122
Inspections	118
Emergency repairs	90
Miscellaneous cyclical works	65
Tunnel & subway repairs	40
Street furniture repairs	31
Street name plates & wayfinding	14
Road markings	13
Coring	12
Parking signage	8
Total	1,629

Mechanical & Electrical Repairs, Maintenance & Energy Funding

Туре	Amount (£'000s)
Street lighting energy	478
Street lighting repairs	346
Illuminated street furniture repairs	245
Illuminated street furniture energy	47
Street lighting carbon tax	43
Festive lighting	27
Illuminated street furniture carbon tax	2
Total	1,188

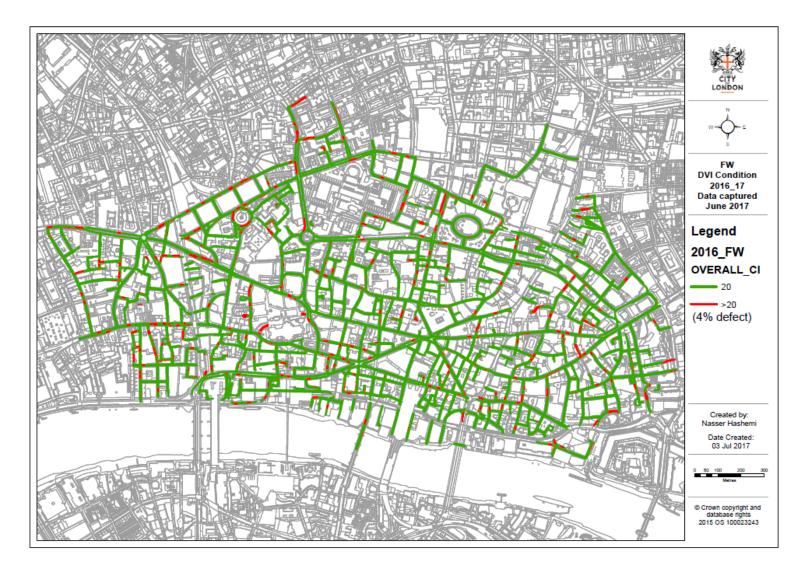
Highway Structures Funding

Туре	Amount (£'000s)
Breakdown maintenance	95
Inspections	150
Total	245



Appendix 2 - UKPMS Carriageway Condition Survey 2016/17

Appendix 3 - UKPMS Footway Condition Survey 2016/17

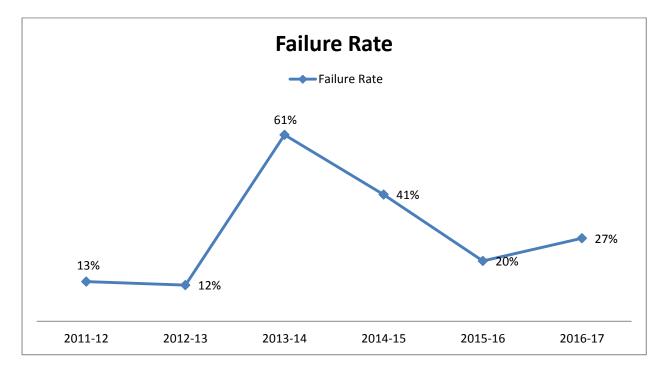


Appendix 4 – DVI Condition Survey 2016/17 (Principal Road Network)



Appendix 4 – SCANNER Condition Survey 2016/17 (Principal Road Network)





Appendix 5 – Utility Trench Reinstatement Coring Results (2011-12 to 2016-17)

2011-12 & 2012-13 – Random coring of all utility works 2013-14 onwards –Targeted coring for works by contractors thought to be 'poor performers'

Individual coring failures are addressed with the respective utilities and contractors, with a variety of penalties incurred, including recharging costs, requiring the reinstatement to be redone, and poor Considerate Contractor Streetworks Scheme scores.