



Cabinet Member Report

Decision Maker:	Cabinet Member for City Highways
Date:	22 March 2017
Classification:	For General Release
Title:	Planned Preventative Maintenance (PPM) programme for 2017/18 in respect of Highways, Public Lighting & Bridges and Structures
Wards Affected:	City wide
Policy Context:	The planned programmes support the ‘City for All’ vision in delivering a well-managed, high quality streetscape whilst protecting and enhancing Westminster’s unique heritage.
Financial Summary:	<p>The overall gross expenditure in respect of the proposed PPM work contained in this report is £12,779,000 for which financial approval is sought.</p> <p>The net expenditure is £11,792,000 and is fully contained within council’s approved capital programme for 2017/18.</p> <p>Income totalling £987,000 made up from:</p> <ol style="list-style-type: none">1) Transport for London grant support for Principal Roads (£721,000)2) Contributions from Statutory Undertakers in respect of work on the pipe subway network (£119,000); and3) a 50% contribution from the London Borough of Lambeth for work to the Golden Jubilee Footbridges (£147,000)
Report of:	Stuart Love - Executive Director for City Management and Communities
Report author:	Kevin Goad – Head of Highways and Public Realm

1. Executive Summary

- 1.1 This report seeks approval for the proposed 2017/18 annual programme of Planned Preventative Maintenance (PPM) work in respect of Highways, Public Lighting & Bridges and Structures.
- 1.2 Two rounds of consultation exercises have been undertaken on the proposed programmes with Ward Members, Amenity Societies, highway inspectors and key stakeholders. Where stakeholder engagement has resulted in a scheme being put forward into a programme of work, this has been clearly identified the appendix tables with the designation (Nomination) against each proposed scheme.
- 1.3 A glossary of terms used in this report can be found at **Appendix E**.

2. Recommendations

- 2.1 That the detailed proposals for the **Highways PPM programme** for 2017/18 at an estimated gross cost of **£9,386,000** as detailed in Section 5.1 and Appendices A to C, be approved.
- 2.2 That the detailed proposals for the **Bridges and Structures PPM** programme for 2017/18 at an estimated gross cost of **£881,000**, as detailed in Section 5.2 be approved.
- 2.3 That the detailed proposals for **Public Lighting PPM** programme for 2017/18 at an estimated gross cost of **£2,512,000**, as detailed in Section 5.3 and Appendix D, be approved.
- 2.4 That the gross capital expenditure of **£12,779,000 (net capital expenditure of £11,792,000)** for 2017/18, comprising the annual PPM programmes for the City Council's Highways, Public Lighting & Bridges and Structures be approved.
- 2.5 That the Cabinet Member delegates to the Executive Director of City Management and Communities the authority to make changes to the programmes agreed in recommendations **2.1 to 2.4**, subject to the proviso that the overall budget is not exceeded and that the Cabinet Member is consulted on any significant changes.

3. Reasons for Decision

- 3.1 All assets deteriorate over time and any work aimed at maintaining the durability of the asset is classed as Programmed Maintenance. Such work prolongs the life of the asset and/or maintains structural capacity and is therefore considered as Capital Expenditure.
- 3.2 Each year the City Council's regular inspection and testing programmes determine the current condition of the various highway assets (Carriageways, Footways, Lighting and Bridges & Structures) and identifies the forward

investment needs that will keep the highway network in a safe and reliable condition.

- 3.3 Provision has been made in the capital programme for this expenditure to enable these programmes of work to be implemented together with preparation of forward programmes of work for **2018/19**.
- 3.4 The proposed Planned Preventative Maintenance programme set out in this report will ensure that the City Council's highway assets remain safe and effective and support the City for All agenda.

4. Background, Including Policy Context

- 4.1 The transport infrastructure in the City of Westminster is of local and national importance and in order to fulfil its potential, it is crucial that the highway network is adequately maintained. This includes not just carriageways and footways, but also bridges, street lighting, signage and other infrastructure assets.
- 4.2 To ensure that the City Council's highway network is efficiently maintained it is applying Asset Management principles and techniques and has adopted the standards set out in the National Codes of Practice for Highways, Public Lighting & Bridges and Structures that provide guidance on the efficient, effective and economic delivery of highway maintenance services and include advice on all new and emerging issues and technical developments.
- 4.3 The work needed to ensure effective maintenance can be split into three general headings:
- **Inspection and Testing** – Information gathering to determine asset condition and performance.
 - **Routine and Reactive (ad-hoc) Maintenance** – Routine maintenance comprises of cyclic maintenance activities such as gully cleansing, bulk lamp change and clean etc. Reactive (ad-hoc) maintenance usually arises from the identification of defects from the inspection regime.
 - **Programmed Maintenance** – Programmed maintenance is planned preventative maintenance which prolongs the life of an asset or maintains structural capacity and is therefore considered to be capital maintenance.
- 4.4 The Planned Preventative Maintenance (PPM) programmes identified in this report are classified as Programmed Maintenance and therefore funded from capital expenditure. The proposed programmes of work for Highways, Public Lighting and Bridges & Structures and are set out in Section 5 below.

5. Proposed Planned Preventative Maintenance (PPM) Programme

5.1 Highways

- 5.1.1 The City Council's annual prioritised PPM programme for highways is developed using its Value Management (VM) process which takes account of a range of criteria including engineering condition, maintenance history, visual appearance, accessibility and customer engagement.
- 5.1.2 The 2017/18 programmes have been developed with the application of the VM process, together with the results of the extensive consultation undertaken with Ward Members, Amenity Societies, highway inspectors and key stakeholders.
- 5.1.3 The programmes have been checked on site for rigour and cross checked with planned utility works and public realm schemes to avoid any potential conflicts. Early consultation and co-ordination with key stakeholders is in place to ensure that the proposed programmes are deliverable as part of the approval process.
- 5.1.4 One change in this years proposed programme is a commitment to invest further in surface water management and drainage schemes. Reports of surface water issues (ponding) and failed or flooded gullies have been on the increase in recent years. There are some 16,000 gullies across the City that are maintained through an annual maintenance 'clean' and a reactive service to deal with flooding. A small sum of money is also allocated annually to gully improvements and cycle friendly gullies. Gullies are not currently subject to a structured asset management regime and this is urgently required to better inform the investment requirements. It is proposed that a 3 year programme is developed to better understand the condition of these assets and make improvements as well as linking the recent work done on strategic flood risk and surface water management studies. This will ensure the outcomes from this work are picked up at an operational level and any known high risk areas are identified and appropriate plans put in place to minimise flood risk on the network. More detail on surface water management and drainage is provided in paragraph 5.1.39.
- 5.1.5 The Surface Water Management programme will be funded through diverting funding from the footway programme as the condition data shows that footways across the city are generally in a good or better condition. In addition, a further **£175,000** of funding is available from the Highways revenue budget for Thames Tidal/Flood Defence.
- 5.1.6 The following table sets out the proposed annual PPM programme for Highways for 2017/18 together with the estimated costs against each budget heading. The Appendixes A to C provide the detailed list of schemes proposed in programme and includes the source designation. There are numerous data sources which have been included as part of the programme development such as the value management score and nominations received from stakeholders e.g. Amenity Societies.

Highways	
Description	Estimated Cost
Carriageway Improvements	
Core carriageway schemes	£2,375,900
Key junctions	£349,700
Cycle friendly gully improvements	£52,500
Infra-red carriageway repairs	£43,600
Localised carriageway schemes	incl. in core schemes
Capitalisation of CAT 2 repairs	£200,000
Client fees (Inc. Compliance and Audit)	£198,000
Technical survey analysis for 2018/19 programme	£68,300
Design (incl. TTO's, Topographic Surveys, Coring etc.)	£362,000
SUB-TOTAL	£3,650,000
Principal Road Carriageway Improvements (reimbursed in full by TfL)	
Principal Road carriageway schemes	£635,650
Client fees (Inc. Compliance and Audit)	£40,805
Design (Inc. Technical Analysis)	£44,545
SUB-TOTAL	£721,000
Carriageway Hot Rolled Asphalt Upgrade Programme	
HRA upgrade carriageway schemes	£2,535,000
Client fees (Inc. Compliance and Audit)	£180,000
Technical survey analysis for 2018/19 programme	£45,000
Design (incl. TTO's, Topographic Surveys, Coring etc.)	£240,000
SUB-TOTAL	£3,000,000
Skid Resistance Surfacing Programme	
Skid resistance surfacing schemes	£130,000
SCRIM survey	£6,500
Client fees (Inc. Compliance and Audit)	£8,800
Design (Inc. Technical Analysis)	£9,700
SUB-TOTAL	£155,000
Footway Improvements	
Core footway schemes (including mastic asphalt conversion)	£609,000
Footway localised schemes	£121,100
Annual Condition Survey (DVI survey)	£55,000
Capitalisation of CAT 2 repairs	£100,000
Value Management for 2018/19 programme development	£17,900
Client fees (Inc. Compliance and Audit)	£63,000

Design (including trial holes, topographic surveys etc.)	£84,000
SUB-TOTAL	£1,050,000
Value for Money – Footway Strengthening Programme	
VfM footway schemes	£172,000
Client Fees (Inc. Compliance and Audit)	£12,000
Design (Inc. Technical Analysis and VM)	£16,000
SUB-TOTAL	£200,000
Surface Water Management Programme	
Drainage Improvement Sites	£334,000
Strategy and Drainage Inventory	£183,000
Client Fees (Inc. Compliance and Audit)	£33,000
SUB-TOTAL	£550,000
Street Nameplates Programme	
Street nameplates	£56,400
Client Fees (Inc. Compliance and Audit)	£3,600
SUB-TOTAL	£60,000
Highways Total	
	£9,386,000

5.1.7 The total cost of the Highways PPM programmes in the table above is estimated at **£9,386,000** for which financial approval is sought. This is fully provided for within the approved capital programme for 'Stone Mastic Asphalt Replacement', 'Planned Preventative Maintenance Carriageways and Footways' and 'Principal Roads'.

Surface Water Management Programme

5.1.8 This is a new addition to the annual PPM works. New legislative regulations such as the Flood Risk Regulations (2009) and the Flood and Water Act (2010) have imposed additional duties on local authorities.

5.1.9 The City Council receives numerous customer complaints with respect to drainage in terms of surface water ponding issues and blocked gullies. To address these deficiencies it is essential that capital investment is targeted at this area. It is recommended that an integrated surface water management programme is developed in 2017-18 financial year which consolidates the following drainage improvements at known locations with significant problems. These locations require further investigation and civil engineering repairs and replacement of new drainage assets. A list of the drainage sites is provided in **Appendix C1**

- 5.1.10 Year 2 (2018-19) of the surface water management programme should be dictated by the asset investment need based on the inventory information collected and linking to the high level flood risk areas within the City.
- 5.1.11 It is recommended a spend of **£550,000** comprising of £334,000 plus associated project costs, is approved to develop the long term drainage infrastructure strategy, collect the drainage inventory including uploading the data into the relevant IT systems and implement the drainage improvement works in **Appendix C1**.

Changes to the Highway Programmes

- 5.1.12 The estimates given in **Appendices A to C** for each street are provisional and will be subject to change following completion of the individual scheme detailed designs. Any significant changes to these estimates will be discussed with the Cabinet Member for City Highways and there may be a need to vary the length or type of treatment within each street to ensure that the overall budget is not exceeded.
- 5.1.13 Changes to the programmes may also be needed during the year as a result of major statutory undertaker work or building operations. In these circumstances it is recommended that the Executive Director for City Management and Communities have the delegated authority to make changes on the basis that the overall budget will not be exceeded and subject to consultation with the Cabinet Member for City Highways.

5.2 Bridges & Structures

- 5.2.1 The maintenance identified in this section of the report refers to the City Council's stock of highway structures. The work identified has been derived by prioritising the outstanding items of work in the current structures 'Workbank'. The Workbank holds a forward plan of capital schemes for delivery over the next 5 to 10 years through either the annual rolling programme of PPM covered by this report, or through other sources of funding such as the City Council's wider Capital Programme or Grant Funding from Transport for London.
- 5.2.2 The Workbank and prioritisation process assimilates information and trends from a number of different sources such as the results from the annual inspection programmes, life cycle planning outputs and the general day to day knowledge and understanding of needs associated with managing the highway structures stock.
- 5.2.3 The annual programme of Planned Preventative Maintenance for Bridges & Structures can be divided into two broad headings:

Structural - This is essential to ensure the integrity and load carrying capacity of the Bridge/Structure is maintained.

Non-Structural Such work includes:

- Renewal of Mechanical and Electrical equipment
- Renewal of Lighting
- Major Repainting / Corrosion Protection
- Renewal / Replacement of drainage systems etc.

5.2.4 The programme of prioritised Programmed Maintenance for Bridges & Structures in 2017/18 for which financial approval is sought is as follows:

Bridges and Structures PPM 2017/18	
Description	Estimated Cost
Structural	
Golden Jubilee Footbridges – Continuation of the Stair Refurbishment Programme	£250,000
Pipe Subway Network - Brickwork/Electrical Repairs	£53,000
Piccadilly Pipe Subway – Repairs to steelwork	£48,000
Waterloo Bridge Link Refurbishment	£122,000
Non-Structural	
Strand Underpass Parapet Railings	£25,000
Piccadilly Underpass Pump Implementation	£90,000
Strand Underpass Breakers	£97,000
Asset Management – Improvements to BridgeStation	£37,000
Other costs (split between lines as detailed below)	
Client Costs (including Compliance & Audit costs)	£58,000
Design & Management Costs	£30,000
Risk & Contingency	£71,000
Bridges and structures Total	£881,000

5.2.5 The total (Gross) costs for the above proposed programmes of work is estimated at **£881,000** for which financial approval is sought.

5.2.6 The cost associated with the proposed works to the Golden Jubilee Footbridges is to be jointly funded with the London Borough of Lambeth under the terms of the legal agreement with the City Council. London

Borough of Lambeth's contribution in 2017/18 is estimated to be **£147,000** (Including all fees and Risk & Contingency).

- 5.2.7 The costs associated with the Pipe Subway Network i.e. the repairs to the steelwork in the Piccadilly Pipe Subway and the brickwork and electrical repairs generally in the Pipe Subway Network, is fully funded by the Utility Companies who house their plant and equipment in the Pipe Subways. The City Council is able to recharge the utilities' companies the costs to maintain the Pipe Subway network under the London County Council General Powers Act 1958. The total income from the utilities' companies will be up to **£119,000** (Including all fees and Risk & Contingency).
- 5.2.8 The total income in 2027/18 is expected to be **£266,000**, the overall net cost to the city council is therefore **£615,000** for which provision of **£615,000** exists within the current capital programme.
- 5.2.9 A simple narrative of the requirements of each scheme in the programme of work is provided below.

Golden Jubilee Footbridges – Programme of stair refurbishment

- 5.2.10 Approval is sought for **£294,000** (Including all fees and Risk & Contingency) to continue the programme of stair refurbishment in 2017/18. The staircase from the upstream footbridge (nearest the London Eye) to the Southbank is programmed for 2017/18, this will complete the stair refurbishments at the southern extents of both footbridges. This leaves the two staircases at the northern ends of the two footbridges to complete in 2018/19 and 2019/20 i.e. the ones on Northumberland Avenue and by the entrance to Embankment Tube Station. The London Borough of Lambeth through a maintenance agreement is responsible for 50% of these costs.

Pipe Subway Network

- 5.2.11 Financial approval of **£62,000** (Including all fees and Risk & Contingency) is sought to implement the brick repairs and the electrical upgrades, at various locations in the Pipe Subway Network..
- 5.2.12 Approval is sought to for **£57,000** (Including all fees and Risk & Contingency) to undertake the repairs to the steelwork forming the pipe subway. These repairs are necessary to ensure the structural integrity of the pipe subway. All costs are fully reimbursable from the utility companies occupying the subway.
- 5.2.13 These costs are fully rechargeable to the utility companies with equipment in the affected pipe subways.

Waterloo Bridge Link Refurbishment – Implementation

- 5.2.14 On Victoria Embankment by Waterloo Bridge, stairs either side of the bridge lead pedestrians to and from the Victoria Embankment onto the bridge deck

level of Waterloo Bridge. The stairs and walls are part of the Grade 2 listed bridge and are in a poor condition, the stairs often hold water when it rains heavily creating a hazard for pedestrians. Unnecessary alcoves and doorways attract rough sleepers and with it the resulting problems from anti-social behaviour. Approval is sought for expenditure of **£146,000** (Including all fees and Risk & Contingency) in 17/18 to undertake the design and implementation of the proposed improvement work.

Strand Underpass Parapet Repairs

- 5.2.15 The ramps which take traffic into and out of the Strand Underpass have vertical side walls which are at their maximum height at the tunnel portals. Mounted around the perimeter of the side walls are steel parapets fixed to the top of the wall, the parapets act as barrier protection to the ramps below. Many of the steel parapet posts which connect the parapets to the top of the concrete wall are badly corroded and in need of repair. Repairs to the parapets are planned for 2018/19 however there are a number of posts which are in need of urgent repair before the planned works in 2018/19.
- 5.2.16 Approval is sought in 2017/18 for **£32,000** (Including all fees and Risk & Contingency) to undertake the design and repair of the most urgent sections of the parapets in advance of the main parapet work in 2018/19. Undertaking the repairs to the most poorly corroded posts will ensure the parapets remain stable until the main works are implemented in 2018/19.

Piccadilly Underpass Pump Replacement

- 5.2.17 Financial approval is sought in 17/18 for **£115,000** (Including all fees and Risk & Contingency) to replace the pump in the Piccadilly Underpass, this pump takes away that collects in the sump of the underpass from surface water. The existing pump is age expired.

Strand Road Underpass – Circuit Breakers

- 5.2.18 The main power supplies for all the tunnel systems in the Strand Road Underpass i.e. the lighting, drainage, ventilation etc. are supplied via two circuit breakers. These ‘breakers’ are old and obsolete and could not be readily replaced were they to fail. Financial approval of **£125,000** (Including all fees and Risk & Contingency) in 17/18 is sought to replace the aged breakers with modern equivalents which will have component parts which will be more readily available in the event of failure.

Asset Management

- 5.2.19 A key Asset Management tool used for the Bridges and Highway Structures assets is a bridge management computer system known as Bridgestation. Bridgestation is data management system used by all the 33 London Boroughs, the data in the system can be analysed (particularly condition data) to form maintenance strategies and target setting, the system also

creates Life Cycle Plans to predict when certain elements or components of a bridge may need replacing.

- 5.2.20 A recent Bridgestation development has been the programming of an inventory database for all the Mechanical & Electrical (M&E) equipment which exists on various bridges and in particular the Piccadilly and Strand Road Underpasses. The M&E functionality will also identify when component parts become age expired and alert officers to the possibility that replacement of some components may be needed. This should reduce the risk of unplanned failures and closure of certain structures.
- 5.2.21 Financial approval of **£50,000** (Including all fees and Risk & Contingency) is sought in 2017/18 to update the Life Cycle Plans in Bridgestation using the latest condition data gathered in 2016/17 and to continue populating the recently developed M&E functionality in Bridgestation. These initiatives will help to deliver a more efficient service and continue the drive towards a planned rather than reactive approach to maintenance.

5.1 **Public Lighting**

- 5.3.1 In developing the annual programme of Planned Preventive Maintenance (PPM) for Public Lighting, recognised and established Asset Management principles and techniques have been applied with a view to prolonging the life of the asset and/or maintaining structural capacity to ensure that public lighting is efficiently managed and that its residents and visitors can enjoy safe and well-lit streets.
- 5.3.2 The programme of proposed schemes, which is presented in more detail in **Appendix D**, has been through a prioritisation process using the City Council's Lighting Value Management Model (LVMM). This process considers a range of factors e.g. structural risk, lighting deficiency and visual condition.
- 5.3.3 The following table summarises the proposed 2017/18 annual programme of PPM for Public Lighting together with the estimated costs against each budget heading of the overall programme.

Lighting	
Description	Estimated Cost
Lighting Improvements (incl. Value Management)	£852,000
Localised Schemes Programme (incl. Lighting Against Crime)	£75,000
Future Design & Technical Development	£125,000
Capitalisation of CAT 2 repairs	£150,000
Client Costs (Inc. Compliance and Audit)	£100,000
Age Expired Equipment	£236,000
Cherished Column replacement	£92,000

Load testing	£66,000
Structurally critical columns	£195,000
Regulatory sign replacement and signage improvements	£72,000
Protective paint coating to lighting columns	£549,000
Lighting Total	£2,512,000

- 5.3.4 The total cost for the above proposed programmes of work is estimated at **£2,512,000** (Inclusive of all fees, risk and contingency and design costs), for which financial approval is sought. Provision for this expenditure exists within the approved capital programme for 2017/18 under 'Planned Preventative Maintenance – Public Lighting'.

Introduction of LED Technology City wide (LED Rollout)

- 5.3.5 Where Public Realm schemes include replacement of upgrading of public lighting these now include LED technology as a matter of course. Individual lantern replacements will be on a 'like for like' basis to ensure consistent quality and colour of light in the particular street.
- 5.3.6 There are a number of different options that could be adopted for a 'rollout' of LED technology across the city. Each option has a different impact on both initial capital investment and on-going revenue maintenance costs and thereby the payback period. A detailed business case is being developed to consider the whole sale deployment of LED lighting across the city based upon an 'invest to save' approach for consideration in 17/18.
- 5.3.7 The total cost for these programmes is estimated at **£2,512,000** for which financial approval is sought. This does not include the costs of the LED deployment which will be covered under a separate business case.

6. Financial Implications

- 6.1 The total gross expenditure in 2017/18 required to implement the annual works programmes for Programmed Maintenance of the City Council's Highways, Bridges & Structures and Public Lighting programmes, as set out paragraphs 2.1 to 2.4 of this report is **£12,779,000** for which financial approval is sought.
- 6.2 Taking into consideration funding from TfL, income from LB Lambeth for Golden Jubilee Bridge and income from the statutory undertakers the overall net cost to the City Council in 2016/17 will be **£11,792,000**. This budget exists in full within the approved capital programme The following table provides details of the current provision within the approved capital programme for 2017/18 together with the proposed expenditure.

Description	Budget Provision (Gross)	Estimated Cost (Gross)	Estimated Cost (Net)
Highways			
Carriageway Improvements	£3,650,000	£3,650,000	£3,650,000
Principal Road Carriageway Improvements (reimbursed in full by TfL)	£887,000	£721,000	£0
Carriageway Hot Rolled Asphalt Upgrade	£3,000,000	£3,000,000	£3,000,000
Skid Resistance Surfacing Programme	£155,000	£155,000	£155,000
Footway Improvements	£850,000	£850,000	£850,000
Footway Localised Schemes	£200,000	£200,000	£200,000
Value for Money – Footway strengthening programme	£200,000	£200,000	£200,000
Surface Water Management programme	£550,000	£550,000	£550,000
Street Nameplate Replacement programme	£60,000	£60,000	£60,000
Sub-total highways	£9,552,000	£9,386,000	£8,665,000
Description	Budget Provision	Estimated Cost (Gross)	Estimated Cost (Net)
Bridges & Structures			
Golden Jubilee Footbridges – Continuation of the Stair Refurbishment Programme (50% costs reimbursed by Lambeth)	£347,000	£294,000	£147,000
Pipe Subway Network - Brickwork/Electrical Repairs (fully funded by statutory undertakers)	£0	£62,000	£0
Piccadilly Pipe Subway – Repairs to steelwork (fully funded by statutory undertakers)	£0	£57,000	£0
Waterloo Bridge Link Refurbishment	£146,000	£146,000	£146,000
Strand Underpass Parapet Railings	£32,000	£32,000	£32,000

Piccadilly Underpass Pump Implementation	£115,000	£115,000	£115,000
Strand Underpass Breakers	£125,000	£125,000	£125,000
Asset Management – Improvements to BridgeStation	£50,000	£50,000	£50,000
Sub-total Bridges & Structures	£815,000	£881,000	£615,000
Description	Budget Provision	Estimated Cost (Gross)	Estimated Cost (Net)
Lighting			
Lighting Improvements (incl. Value Management)	£852,000	£852,000	£852,000
Localised Schemes Programme (incl. Lighting Against Crime)	£75,000	£75,000	£75,000
Future Design & Technical Development	£125,000	£125,000	£125,000
Capitalisation of CAT 2 repairs	£150,000	£150,000	£150,000
Client Costs (Inc. Compliance and Audit)	£100,000	£100,000	£100,000
Aged Expired Equipment	£236,000	£236,000	£236,000
Cherished Column replacement	£92,000	£92,000	£92,000
Load testing	£66,000	£66,000	£66,000
Structurally critical columns	£195,000	£195,000	£195,000
Regulatory sign replacement and signage improvements	£72,000	£72,000	£72,000
Protective paint coating to lighting columns	£549,000	£549,000	£549,000
Sub-total Lighting	£2,512,000	£2,512,000	£2,512,000
Total Expenditure	£11,792,000	£12,779,000	£11,792,000

Note: All figures quoted in the table above are inclusive of Works, Design, Client Costs and Risk and Contingency.

Revenue Implications

- 6.3 The revenue impact of funding the Capital Programme through borrowing will be met from the corporate budget provision for debt charges. However, the City Management and Communities department will be charged the depreciation cost for these assets, which are dependent on their useful life.
- 6.4 The Lighting Improvements programmes are considered such that they will have no negative impact regarding revenue maintenance costs in the future. The additional assets and their associated maintenance cost will be balanced off with energy and maintenance savings.

7. Legal Implications

- 7.1 The City Council, as local highway authority, has a duty under the Highways Act 1980 to ensure the effective maintenance and management of the Council's highway and highway assets (including lighting), and that they remain safe and effective. The programmes set out in this report help discharge the City Council's duty in this respect.

8. Staffing Implications

- 8.1 There are no staffing implications arising from this report.

9. Business Plan Implications

- 9.1 The works programmes presented in this report have been developed using recognised good practice and Value Management techniques and Asset Management principles. This approach has been employed on Westminster's Highway Infrastructure assets for more than ten years.

10. Outstanding Issues

- 10.1 Changes to the proposed programmes of work may be needed during the year, due to major statutory undertakers' work or building operations. A recommendation has been included seeking approval to delegate to the Executive Director for City Management & Communities the authority to make changes to the programmes subject to the proviso that the overall budget is not exceeded and that the Cabinet Member for City Highways is consulted on any changes.

11. Consultation

- 11.1 The 2017/18 forward programmes has been developed following consultation exercises with Ward Members, Amenity Societies, highway inspectors and key stakeholders.
- 11.2 The results of the consultation has been reviewed and, where justified, included in the list of scheme proposals contained in this report.

- 11.3 In respect of the individual schemes Public Notices will be used to advertise the proposed works in a given location and would give the outline details of works. In addition, a letter drop to affected households will be made outlining details of the scheme with a plan and contact details of appropriate contractor/client officers.

12. Crime and Disorder Act 1998

- 12.1 It is recognised that good street lighting has a deterrent effect on street crime and burglaries etc. All street lighting improvement schemes within the capital programme, take into account the need for better lighting. The Lighting against Crime programme is specifically targeted at crime hot-spots identified using information relating to crime and developed in liaison with the police. The change to the use of white light sources is having beneficial effects on the quality of the night-time CCTV and for individuals to be able to recognise friend or foe more easily.

13. Health and Safety Issues

- 13.1 All works undertaken will be closely monitored and carried out to the requirements of the Health & Safety at Work etc Act 1974 and the Construction (Design and Management) Regulations 2015.

14. Impact on Health and Wellbeing

- 14.1 Health concerns regarding the application of LED technologies have been raised in the national press. These essentially are based upon the perceived impact of the high blue light content of LEDs with high colour temperatures i.e. >5,000K. This issue has been addressed nationally through Public Health England (PHE) through their report, dated November 2015, which advised that such concerns have no basis.
- 14.2 The on street trials have highlighted the impact of colour temperature and it is proposed to use 'warm white' lanterns (in the range 2,700K to 3,000K) rather than 'cool white' (in the range 3,500K to 4,500K) as this provides similar lighting to other existing lighting on street in Westminster.
- 14.3 The proposals identified in this report are considered to have a minimal impact on the health and wellbeing of the community. Whilst some low level negative impacts may be experienced during the construction phase (associated with dust and noise nuisance), overall the works are expected to produce benefits for the community associated with the highway improvements.
- 14.4 If you have any queries about this Report or wish to inspect any of the Background Papers please contact: Kevin Goad on 020 7641 1903 or email kgoad@westminster.gov.uk.

BACKGROUND PAPERS

None

For completion by the **Cabinet Member for City Highways**
I have <no interest to declare / to declare an interest> in respect of this report

Signed: _____ Date: _____

NAME: **Councillor Danny Chalkley, Cabinet Member for City Highways**

State nature of interest if any

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.....

(N.B: If you have an interest you should seek advice as to whether it is appropriate to make a decision in relation to this matter)

For the reasons set out above, I agree the recommendation(s) in the report entitled **Planned Preventative Maintenance (PPM) programme for 2017/18 in respect of Highways, Public Lighting & Bridges and Structures** and reject any alternative options which are referred to but not recommended.

Signed

Councillor Danny Chalkley, Cabinet Member for City Highways

Date

If you have any additional comment which you would want actioned in connection with your decision you should discuss this with the report author and then set out your comment below before the report and this pro-forma is returned to the Secretariat for processing.

Additional comment:

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.....

If you do not wish to approve the recommendations, or wish to make an alternative decision, it is important that you consult the report author, the Director of Law, Director of Finance and, if there are being implications, the Director of People Services (or their representatives) so that (1) you can be made aware of any further relevant considerations that you should take into account before making the decision and (2) your reasons for the decision can be properly identified and recorded, as required by law.

Note to Cabinet Member: Your decision will now be published and copied to the Members of the relevant Policy & Scrutiny Committee. If the decision falls within the criteria for call-in, it will not be implemented until five working days have elapsed from publication to allow the Policy and Scrutiny Committee to decide whether it wishes to call the matter in.

Appendices

Proposed Annual Programme of Planned Preventative Maintenance (PPM)

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Appendix B – Footways Improvement Programme

- **Appendix B1** – Core Footway Improvements Programme
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Appendix D – Lighting Improvements Programme

- **Appendix D1** - Proposed Lighting Improvement Programme 2017/18
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- **Appendix D3** - Age Expired Lantern Replacement Programme 2017/18
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Appendix E – Glossary of Terms

Appendix A - Carriageways Improvement Programme

Appendix A1 – Core Carriageway Improvements Programme

The proposed annual programme of PPM for Core Carriageway Improvements Programme for 2017/18 is presented in the table below in priority order. These programmes of work have been developed with the application of the Value Management (VM) process, together with consultation with Ward Members, Amenity Societies, highway inspectors and key stakeholders.

Road Name	Location/Extents	Ward	Scheme Area m2	100m Maximum CI Value	20m Average CI Value	VM Score	Source	Cost estimate
Howick Place	Francis Street to Thirleby Road	Vincent Square	1,200	105	63	100	Nomination	£49,800
St Petersburg Place	Moscow Road to Bayswater	Lancaster Gate	1,760	51	23	100	Nomination	£65,000
King Charles Street	Parliament Street to end	St James's	2,406	13	8	100	Nomination	£99,600
Westbourne Grove	Westbourne Grove Terrace to Kensington Gardens Square	Lancaster Gate/ Bayswater	968	5	0	100	Nomination	£56,600
Manchester Street	Manchester Square to George Street	Marylebone High Street	791	86	98	82	VM Score	£33,500
Lexington Street	Brewer Street to Beak Street	West End	616	79	72	77	Nomination	£36,500
Wilton Road	Neathouse Place to Warwick Way	Warwick	2,580	80	73	76	VM Score	£141,600
Upper Belgrave Street	Belgrave Square to Eaton Square	Knightsbridge & Belgravia	2,439	105	105	75	VM Score	£98,000
Marlborough Place	Hamilton Terrace to Abbey Road	Abbey Road	2,067	105	101	75	VM Score	£110,400

Road Name	Location/Extents	Ward	Scheme Area m2	100m Maximum CI Value	20m Average CI Value	VM Score	Source	Cost estimate
Greencoat Place	Stillington Street to Emery Hill Street	Vincent Square	484	105	100	75	VM Score	£19,800
Westbourne Terrace Bridge	Orsett Terrace to Harrow Road (Southbound bridge deck carriageway excluded)	Bayswater/ Hyde Park	2,280	105	95	75	Nomination	£106,300
Piccadilly Underpass*	Eastbound	Knightsbridge & Belgravia/ West End	TBC*	105	79	75	VM Score	£65,000
Curzon Street	Fitzmaurice Place to Park Lane	West End	6,145	105	92	75	VM Score	£222,000
Sutherland Street	Lopus Street to Ebury Bridge	Churchill/ Warwick	3,338	105	81	75	VM Score	£109,800
Cirencester Street	Harrow Road to Cul-de-sac	Westbourne	690	105	105	75	VM Score	£29,800
Westmoreland Place	Westmoreland Terrace to Lupus Street	Churchill	999	100	83	75	VM Score	£36,000
Rochester Row	Vauxhall Bridge Road to Greycoat Place	Vincent Square	2,492	100	85	75	VM Score	£194,100
Broadway	Tothill Street to Queen Anne's Gate	St James's	1,493	99	99	75	VM Score	£58,600

Road Name	Location/Extents	Ward	Scheme Area m2	100m Maximum CI Value	20m Average CI Value	VM Score	Source	Cost estimate
Kensington Road	Westbound carriageway; Queens Gate to Palace Gate	Knightsbridge & Belgravia	2,482	94	76	75	VM Score	£95,400
Tothill Street	Broadway to Storey's Gate	St James's	3,696	85	74	75	VM Score	£178,100
Elgin Avenue	Fernhead Road to Chippenham Road	Harrow Road	4,500	85	49	75	Nomination	£570,000
Carriageway Improvements Total								£2,375,900

*Note * Piccadilly Underpass requires a tunnel closure to define extents therefore the estimated cost provided may be revised following review on 12/03/17*

Appendix A2 – Key Junctions Programme

The existing highways Value Management process is used to prioritise schemes in the Key Junctions Programme. The detailed list of sites proposed for the 17/18 programme is provided in the table below.

Road Name	Location/Extents	Ward	Scheme Area m2	Source	Cost estimate
Clipstone Mews	Clipstone Street	West End	1,130	ACS Score	£70,000
Horseferry Road/	Regency Street/ Maunsel Street	Vincent Square	770	ACS Score	£49,000
Kensington Road	Kensington Gore West of Royal Albert Hall	Knightsbridge & Belgravia	1,133	ACS Score	£72,000
Kensington Road	Kensington Gore East of Royal Albert Hall	Knightsbridge & Belgravia	1,133	ACS Score	£73,200
Wigmore Street	Welbeck Street	Marylebone High Street	1,470	ACS Score	£85,500
Key Junctions Total					£349,700

Appendix A3 – Cycle Friendly Gully Improvements Programme

This programme commenced in 2014/15, which had arisen from the drafting of the City Council's Cycling Strategy. It recognises that cyclists benefit from replacement or re-setting of gully gratings to provide a smoother cycling surface and avoid the need for them to move away from the kerb line thus avoiding potential accidents

The 'Cycle friendly gully improvements Programme' proposed for 17/18 is provided in the table below.

Road Name	Location/Extents	Ward	No. of Gullies	Cost estimate
Delamere Terrace	Lord Hills Road to Westbourne Terrace Road	Westbourne	5	£1,800
Aberdeen Place	Maida Vale to Northwick Terrace	Church Street / Regent's Park	5	£1,800
Lilestone Street	Rossmore Road to Tresham Crescent	Church Street	5	£1,800
Tresham Crescent	Lilestone Street to Casey Close	Church Street	5	£1,800
Inverness Terrace	Bishop's Bridge Road to Bayswater Road	Lancaster Gate	2	£700.00
Portland Place - Southbound	Park Crescent to Langham Place	Marylebone High Street / West End	2	£700.00
Portland Place - Northbound	Langham Place to Park Crescent	Marylebone High Street / West End	5	£1,800
Regent Street and Langham Place	Oxford Circus to Portland Place	West End	5	£1,800
Piccadilly	Hyde Park Corner to Berkeley Street	St James's/ West End	5	£1,800
Duke Street	Brook Street to Oxford Street	West End	5	£1,800
Duke Street	Edwards Mews to Manchester Square	Marylebone High Street	5	£1,800
Manchester Square	Entire Square	Marylebone High Street	5	£1,800
Manchester Street	Manchester Square to George Street	Marylebone High Street	5	£1,800

Road Name	Location/Extents	Ward	No. of Gullies	Cost estimate
Spanish Place	George Street to Manchester Square	Marylebone High Street	5	£1,800
Hinde Street	Manchester Square to Marylebone Lane	Marylebone High Street	5	£1,800
Bentinck Street	Marylebone Lane to Welbeck Street	Marylebone High Street	5	£1,800
Welbeck Street	Bentinck Street to New Cavendish Street	Marylebone High Street	4	£1,400
Queen Anne Street	Welbeck Street to Wimpole Street	Marylebone High Street	4	£1,400
Cavendish Square	Entire Square	Marylebone High Street/ West End	4	£1,400
Henrietta Place	Cavendish Square to Vere Street	Marylebone High Street/ West End	4	£1,400
Northumberland Avenue	Victoria Embankment to Trafalgar Square	St James's	4	£1,400
Strand	Trafalgar Square to Lancaster Place	St James's	4	£1,400
Strand	Arundel Street to Chancery Lane	St James's	4	£1,400
Duncannon Street	St Martin's Place to Strand	St James's	4	£1,400
Drury Lane	Long Acre to Aldwych	St James's	4	£1,400
Parliament Street	Whole square	St James	4	£1,400
Whitehall	Derby Gate to Trafalgar Square	St James's	4	£1,400
Belgrave Road	Lupus Street to Hugh Street	Tachbrook/ Warwick	4	£1,400
Eccleston Bridge	Hugh Street to Buckingham Palace Road	Warwick	4	£1,300
Lupus Street	Grosvenor Road to Bessborough Place	Churchill/ Tachbrook/ Warwick	4	£1,300

Road Name	Location/Extents	Ward	No. of Gullies	Cost estimate
Warwick Way	Ebury Bridge to Vauxhall Bridge Road	Tachbrook/ Warwick	4	£1,300
Victoria Street	Bressenden Place to Storey's Gate	St James's / Vincent Square	4	£1,300
Kensington Road/ Knightsbridge	Rutland Gardens/ Brompton Road to Exhibition Road	Knightsbridge & Belgravia	4	£1,300
Buckingham Gate	Victoria Street to Spur Road	St James's	4	£1,300
Great Cumberland Place	George Street to Marble Arch	Bryanston & Dorset Square	4	£1,300
Cycle Friendly Gullies Total				£52,500

Appendix A4 – Infra-red Carriageway Repairs Programme

Carriageway repairs using Infra-red technology is a repair method for surface cracks and potholes in the carriageway using the proprietary system known as “Rhinopatch”

The proposed programme of treatment sites in the table below for 2017/18 has been developed using data collected from the ACS to identify defects that can be treated by this technique

Road Name	Location/Extents	Ward	Scheme Area m2	Cost estimate
Bremner Road	Queen's Gate to Jay Mews	Knightsbridge & Belgravia	24	£1,200
Brewer Street	Warwick Street to Wardour Street	West End	25	£1,300
Bruton Lane	Berkeley Square to Bruton Street	West End	23	£1,200
Bryanston Street	Great Cumberland Place to Old Quebec Street	Bryanston and Dorset Square	25	£1,300
Burlington Gardens	New Bond Street to Saville Row	West End	24	£1,200
Charing Cross Road	Orange Street to opposite Property no.14	St James's	25	£1,300
Charlbert Street	St John's Wood Terrace to Allitsen Road	Abbey Road/ Regent's Park	25	£1,300
Chesterfield Hill	Hill Street to Charles Street	West End	25	£1,300
Chesterfield Hill	South Street to Hill Street	West End	25	£1,300
Chetwode House	Jerome Crescent to End Of Road	Tachbrook	24	£1,200
Cleveland Terrace	Westbourne Terrace to Gloucester Terrace	Lancaster Gate/ Hyde Park	24	£1,200
Dorset Square	Balcombe Street to Dorset Square	Bryanston and Dorset Square	24	£1,200

Road Name	Location/Extents	Ward	Scheme Area m2	Cost estimate
Ennismore Street	Rutland Gate to Ennismore Gardens	Knightsbridge & Belgravia	25	£1,300
Fernhead Road	Elgin Avenue to Kennet Road	Harrow Road	23	£1,300
Lancaster Place	Strand to Waterloo Bridge	St James's	23	£1,300
Macclesfield Street	Shaftesbury Avenue to Gerrard Street	St James's	24	£1,300
Maiden Lane	Bedford Street to Southampton Street	St James's	25	£1,300
Margaret Street	Regent Street to Cavendish Square	West End	23	£1,300
Montrose Place	Halkin Street to Chapel Street	Knightsbridge & Belgravia	25	£1,300
Noel Street	Wardour Street to Berwick Street	West End	22	£1,300
North Audley Street	Lees Place to Grosvenor Square	West End	24	£1,300
Northumberland Street	Northumberland Avenue to Corner House Street	St James's	25	£1,300
Piccadilly	St James's Street to Regent Street	St James's/ West End	26	£1,300
Rampayne Street	Vauxhall Bridge Road to Regency Street	Vincent Square	24	£1,300
Rex Place	Mount Street to Aldford Street	West End	23	£1,300
Southwick Place	Hyde Park Square to Hyde Park Crescent	Hyde Park	26	£1,300
St Anselm's Place	Gilbert Street to Davies Street	West End	24	£1,300
St George Street	Hanover Square to end of dual carriageway	West End	25	£1,300
Stanhope Place	Seymour Street to Bayswater Road	Hyde Park	24	£1,300

Road Name	Location/Extents	Ward	Scheme Area m2	Cost estimate
Sussex Street	Cumberland Street to Sutherland Street	Warwick	24	£1,300
Swallow Place	Princes Street to Oxford Street	West End	23	£1,300
Warwick Street	Glasshouse Street to Beak Street	West End	24	£1,300
Waverton Street	Hill Street to South Street	West End	24	£1,300
West Eaton Place	West Eaton Place near Eaton Terrace Mews	Knightsbridge & Belgravia	24	£1,300
Infra-red Schemes Total				£43,600

Appendix A5 – Principal Road Carriageway Improvements Programme (TfL Funded)

In addition to the City Council funded carriageway schemes, Transport for London (TfL) has notified the City Council, as part of the LIP funding settlement that the 2017/18 grant for structural maintenance for Principal Roads maintained by the City Council is **£721,000**.

The approved programme for Principal Road Carriageway Improvements for 2017/18 is provided in the table below.

Road Name	Location/Extents	Ward	Scheme Area m2	Source	Cost estimate
Belgrave Road	Hugh Street to Churton Street	Tachbrook	3,955	DVI survey	£219,000
Harrow Road	Elgin Avenue to Portnall Road	Harrow Road/ Westbourne	2,390	DVI survey	£263,000
Harrow Road	Elgin Avenue to Chippenham Road	Harrow Road/ Westbourne	2,840	DVI survey	£239,000
Principal Roads Total					£721,000

Appendix A6 – HRA Upgrade Programme

A strategy for the carriageway HRA Upgrade Programme has been developed based upon ACS data. The proposed programme for 2017/18 is presented in the table below. Some of the schemes identified in the programme have been nominated as part of the consultation exercise with local amenity societies.

Road Name	Location/Extents	Ward	Scheme Area (m ²)	Source	Cost Estimate
Bell Street	Edgware Road to Penfold Street	Bryanston and Dorset / Regent's Park	995	ACS Score	£30,600
Bridgeman Street	Barrow Hill Road to Allitsen Street	Regents Park	745	Nomination	£36,300
Brown Street	Nutford Place to Harrowby Street	Bryanston and Dorset Square	719	Nomination	£33,000
Buckingham Gate	Property no.35 to 23	St James's	740	ACS Score	£44,600
Castlereagh Street	Brown Street to end of road	Bryanston and Dorset Square	495	ACS Score	£23,900
Chepstow Road	Westbourne Grove to Westbourne Park Road	Bayswater	4,652	Nomination	£162,300
Corlett Street	Bell Street to Penfold Place	Church Street	331	ACS Score	£17,300
Coventry Street	Junction with Shavers Place between Haymarket and Oxendon Street	St James's	318	ACS Score	£19,700

Road Name	Location/Extents	Ward	Scheme Area (m ²)	Source	Cost Estimate
Craven Road	Spring Street to Westbourne Terrace	Hyde Park	1,546	ACS Score	£48,000
Dean Street	Old Compton Street to St Anne's Court	West End	1,503	ACS Score	£41,500
Duncannon Street	Charing Cross Road to Strand	St James's	840	Nomination	£35,400
Elgin Avenue	Randolph Avenue to Lauderdale Road	Maida Vale	5,796	ACS Score	£147,800
Formosa Street	Junction with Bristol Gardens	Little Venice / Westbourne	759	ACS Score	£29,300
Halkin Place	full length	Knightsbridge and Belgravia	660	ACS Score	£28,200
Hamilton Terrace	Abercorn Place to Hall Road (joint repairs and crack sealing)	Abbey Road	4753	ACS Score	£143,500
Horseferry Road	Great Peter Street to Elverton Street	St James's / Vincent Square	1,648	ACS Score	£85,700
Kilburn Park Road	Carlton Vale to bus stop MB	Maida Vale	939	ACS Score	£39,100
Lisson Grove	St John's Wood Road to Church Street	Church Street/ Regent's Park	6,351	ACS Score	£250,100
Little Newport Street	Charing Cross Road to Newport Place	St James's	460	ACS Score	£22,200

Road Name	Location/Extents	Ward	Scheme Area (m ²)	Source	Cost Estimate
Lupus Street	St George's Square to Grosvenor Road	Churchill/ Tachbrook/ Warwick	10,819	Nomination	£360,300
Norfolk Place	Star Street to St Michael's Street	Hyde Park	344	ACS Score	£16,600
Paddington Street	Nottingham Place to Marylebone High Street	Marylebone High Street	627	ACS Score	£28,700
Piccadilly	Eastbound carriageway - Down Street to Clarges Street	St James's	2,794	Nomination	£103,900
Piccadilly	Outside property no.91 including junction with Half Moon Street	West End	1,314	ACS Score	£11,800
Ponsonby Place	John Islip Street to Millbank	Vincent Square	706	Nomination	£22,400
Porchester Terrace	Leinster Place to Queensborough Passage	Lancaster Gate	1812	Nomination	£71,400
Praed Street	Winsland Street to Edgware Road	Hyde Park	3,843	ACS Score	£150,600
Rossmore Road	Junction with Palgrave Gardens	Bryanston and Dorset / Regent's Park	369	ACS Score	£18,400

Road Name	Location/Extents	Ward	Scheme Area (m ²)	Source	Cost Estimate
Shroton Street	Daventry Street to Lisson Grove	Church Street	1,200	ACS Score	£73,000
Strand	West of Duncannon Street outside property no.460 to no.442 -eastbound carriageway only	St James's	497	ACS Score	£28,100
Sutherland Avenue	Castellain Road to Shirland Road	Little Venice	4,438	ACS Score	£113,500
Thirleby Road	Francis Street to Victoria Street	Vincent Square	2137	Nomination	£74,500
Victoria Street	Broadway to Great Smith Street	St James's	4,639	Nomination	£223,300
Carriageway HRA Upgrade sub-total					£2,535,000

Appendix A7 – Skid Resistance Surfacing Programme

The 'Skid Resistance Surfacing Programme' is based on a skid-resistance survey, known as the SCRIM (Sideway-force Coefficient Routine Investigation Machine). The final proposed Programme for 2017/18 is shown in the table below.

Road Name	Location/Extents	Ward	Scheme Area (m ²)	Source	Cost Estimate
Piccadilly	Eastbound approach to Stratton Street	St James's/ West End	302	SCRIM analysis	£12,500
Piccadilly	Westbound approach to Berkeley Street	St James's/ West End	376	SCRIM analysis	£14,300
Charing Cross Road	St Martin's Place to Shaftesbury Avenue (north and southbound crossing approaches)	St James's	1078	SCRIM analysis	£32,300
Westbourne Grove	Eastbound approach to Chepstow Road	Bayswater	250	SCRIM analysis	£10,500
Westbourne Grove	Westbound approach to Chepstow Road	Bayswater	240	SCRIM analysis	£10,100
Westbourne Grove	Westbound approach to controlled crossing at Hereford Road	Bayswater	240	SCRIM analysis	£10,100
Bishop's Bridge Road	Eastbound approach to Porchester Terrace	Bayswater/ Lancaster Gate	360	SCRIM analysis	£13,700
Bishop's Bridge Road	Westbound approach to Inverness Terrace	Bayswater/ Lancaster Gate	340	SCRIM analysis	£13,000
Bishop's Bridge Road	Westbound approach to Queensway	Bayswater/ Lancaster Gate	355	SCRIM analysis	£13,500
Asphalt resurfacing and HFS sites Sub-Total					£130,000

Appendix B – Footways Improvement Programme

Appendix B1 – Core Footway Improvement Programme

The proposed annual programme for footway improvements for 2017/18 presented in the table below has been developed with the application of the VM process together with consultation with Ward Members, Amenity Societies, highway inspectors and key stakeholders, the programme of schemes includes the conversion of mastic asphalt to flagged paving schemes.

Road Name	Location/Extents	Ward	Scheme Area m2	100m Maximum CI Value	20m Average CI Value	VM Score	Source	Cost estimate
Seymour Place	Crawford Street to George Street	Bryanston	551	46	20	46	VM Score	£43,300
King Charles Street	Parliament Street to end (Northern footway)	St James's	314	45	12	39	VM Score	£44,700
Great Titchfield Street	Eastern footway from Riding House St junction - Mortimer St junction	West End	160	36	31	34	VM Score	£23,300
Harley Street	1. Queen Anne Street to Wigmore Street (Eastern and Western footways) 2. Weymouth Street to Devonshire Street (Eastern footway)	Marylebone High Street	1,070	35	11	29	VM Score	£118,600
Wellbeck Street	Wigmore Street to Henrietta Place	Marylebone High Street	760	27	29	25	Nomination	£85,100
Elizabeth Street	Buckingham Palace Road to Ebury Street	Knightsbridge & Belgravia	470	20	16	25	Nomination	£ 65,300
Craven Road	Spring Road to Craven Terrace	Lancaster Gate	883	19	13	25	Nomination	£100,000
Great Portland Street	Western footway from Riding House Street to Oxford Street	West End	510	17	17	25	Nomination	£58,200
Wimpole Street	New Cavendish Street to Weymouth Street	Marylebone High Street	620	10	10	25	Nomination	£70,500
Footway Improvements Total								£609,000

Appendix B2 – Footway Localised Schemes Programme

The programme in the table below is work to deal with 'localised paving defects', these requests are typically Category 2 defects received from Ward Members, Amenity Societies, highway inspectors and key stakeholders.

Road Name	Location/Extents	Ward	Scheme Area m2	100m Maximum CI Value	20m Average CI Value	VM Score	Source	Cost estimate
Manchester Square	Hinde Street to Duke Street - South-eastern perimeter	Marylebone High Street	116	24	20	25	Nomination	£18,000
Shirland Road	From Property 94- to Property 112	Queens Park	187	19	15	25	Nomination	£28,000
Gloucester Terrace*	Property no. 9 to no.16 – West of Porchester Square	Hyde Park	150	14	12	N/A*	Nomination	£20,100
Chepstow Road	Bridstow Place to Talbot Road – Eastern and Western footways	Westbourne	1,270	11	9	25	Nomination	£55,000
Footway Localised Schemes								£121,100

*Note * Gloucester Terrace VM Score unavailable due to being a late nomination*

Appendix B3 – Footway Strengthening Programme (VfM)

The programme of work presented in the table below is to repair areas on the footway due to damage caused regularly by parked or over-running vehicles. These footway areas are strengthened to better resist damage.

Road Name	Location/Extents	Ward	Scheme Area m2	100m Maximum CI Value	20m Average CI Value	VM Score	Source	Cost estimate
Drummond Gate	Vauxhall Bridge Road to Bessborough Street	Tachbrook	204	46	48	49	VM Score	£23,300
Kensington Gore	Southern footway between Jay Mews and West-side entrance of Royal Geographic Society	Knightsbridge	227	24	24	39	VM Score	£26,600
Waterloo Bridge	Lancaster Place to Waterloo Bridge	St James's	375	40	31	29	Nomination	£81,800
Ryder Street	Bury Street to St James's Street	St James's	290	19	2	25	Nomination	£40,300
Footway Strengthening Total								£172,000

Appendix C – Surface Water Management

Appendix C1 – Surface Water Management Programme

Road Name	Ward	Cost estimate
Biddulph Road	Maida Vale	£11,500
Blandford Street	Marylebone High Street	£10,500
Bravington Road	Queen's Park	£11,000
Brook's Mews	West End	£11,500
Catherine Place	St James's	£12,100
Cavendish Square (site1)	West End	£12,700
Cavendish Square (site 2)	West End	£9,900
Cavendish Square (site3)	West End	£12,700
Clarendon Street	Warwick	£12,000
Conduit Street	West End	£11,400
Delaware Road	Maida Vale	£11,900
Eccleston Square	Warwick	£10,800
Foley Street	West End	£11,500
Foscote Mews	Westbourne	£11,300
Great Smith Street	St James's	£12,300
Great Titchfield Street	West End	£12,100
Kean Street	St James's	£10,900

Road Name	Ward	Cost estimate
Medway Street	St James's	£10,900
Oxford Street (site 1)	West End	£ 11,900
Oxford Street (site 2)	West End	£12,200
Palace Street	St James's	£11,400
Peter Street	West End	£13,700
Portnall Road	Queen's Park	£10,700
Prince Consort Road	Knightsbridge & Belgravia	£11,500
Regent Street (site 1)	West End	£11,200
Regent Street (site 2)	West End	£11,300
Savoy Place	St James's	£9,900
Tufton Street	St James's	£12,300
Westbourne Park Mews	Bayswater	£10,900
Surface Water Management Total		£334,000

Appendix D – Lighting Improvements Programme

Appendix D1 - Proposed Lighting Improvement Programme 2017/18

A 'Value Management' prioritisation process is used to develop the list of schemes presented in the table below. The process is based on an aggregated score of structural risk, lighting deficiency; visual condition of the column; lantern and electrical condition. In addition, the process takes account of other 'Local' factors including, accident black-spots, low lighting levels, high crime area, prime site/important streets, area of significant pedestrian use and complaints.

Road	Ward	Existing Assets	Source	Proposed Improvements	Estimated Cost
HORSEFERRY ROAD (Phase 2 - Monck Street to Millbank)	Vincent Square	14	VM Process	2 x 10m standard columns with security base to remain with new LED LGW luminaires. 12 x new 10m LGW columns with LED LGW luminaires	£122,000
BLENHEIM TERRACE	Abbey Road	7	VM Process	7 x new 6m SGW columns with LED SGW luminaires	£56,000
STRATFORD PLACE	Marylebone High Street	10	VM Process	10 x new 6m SGW columns with LED SGW luminaires	£90,000
ST GEORGE'S DRIVE (Phase 1)	Warwick	29	VM Process	4 x LGW columns and luminaires	£37,000
BRYANSTON PLACE	Bryanston & Dorset Square	8	VM Process	2 x LED SGW upgrades & 6 x new 5m SGW columns with LED SGW luminaires	£51,000

Road	Ward	Existing Assets	Source	Proposed Improvements	Estimated Cost
MARYLEBONE HIGH STREET (Between Devonshire Street & Marylebone Road)	Marylebone High Street	10	Nomination	10 x (LGW/SGW) columns and luminaires	£90,000
ST STEPHEN'S CRESCENT	St James's	2	Nomination	2 x lantern upgrade to LED onto existing columns, 1 x new 6m standard column with functional LED luminaire	£3,500
PORTLAND PLACE (between the junctions with Duchess Street to Park Crescent)	Marylebone High Street	16	VM Process	14 x new 10m LGW columns with LED LGW luminaires	144,000
CHARING CROSS ROAD (Great Newport Street to Goslett Yard)	St James's	18	VM Process	6 x new 8m LGW columns with LED LGW luminaires & 12 x LGW conversions	£162,000
BEESTON PLACE	St James's	4	VM Process	4 x LED LGW Lantern Upgrades complete with signage	£15,500
BOW STREET	St James's	7	VM Process	7 x LED LGW Lantern Upgrades complete with signage	£21,500
SAVOY STREET	St James's	6	VM Process	6 x new 6m SGW columns with LED SGW luminaires complete with signage	£59,500
Total					£852,000

Appendix D2 - Localised Lighting Schemes Programme (incl. Lighting Against Crime)

The schemes in the table below are for small 'Ad-Hoc' schemes of a localised nature and to manage Category 2 defects such as faults on component parts and failures or faults on private cabling systems. This enables the City Council to react to problems that occur throughout the year. This programme also deals with 'Lighting against crime'. A particular public concern is street crime and fear/perception of crime. Good lighting has been shown to reduce this.

STREET	WARD	NUMBER	Source	LANTERN REPLACEMENT	Estimated Cost
WARWICK AVENUE	Little Venice	1	Nomination	Pedestrian crossing upgrade	£6,000
WARRINGTON CRESCENT	Little Venice	1	Nomination	Pedestrian crossing upgrade	£6,000
CLIFTON GARDENS	Little Venice	1	Nomination	Pedestrian crossing upgrade	£6,000
CLIFTON VILLAS	Little Venice	1	Nomination	Pedestrian crossing upgrade	£6,000
RANDOLPH AVENUE	Maida Vale	1	Nomination	Pedestrian crossing upgrade	£6,000
ELGIN AVENUE	Maida Vale	1	Nomination	Pedestrian crossing upgrade	£6,000
Total					£36,000

Note: The Budget of £75,000 has not been fully allocated to allow a flexible approach to react directly to local lighting concerns and problems that occur throughout the year

Appendix D3 - Age Expired Lantern Replacement Programme 2017/18

The various components of Street Lighting deteriorate at differing rates. Typically columns have an 'assumed life' of 40 years, whereas the 'assumed life' of lanterns is 20 years and that of other electrical components is 10 years. It is therefore essential to replace equipment that has become 'age expired' or beyond economical repair at the appropriate time. The proposed works programme presented in the table below comprises mainly of individual lantern replacements together with re-wiring and electrical component replacement.

STREET	WARD	NUMBER	Source	LANTERN REPLACEMENT	Estimated Cost
BERKELEY SQUARE	West End	28	VM Process	LED Large Grey Wornum	£68,000
BELGRAVE ROAD	Warwick	23	VM Process	LED Large Grey Wornum	£55,000
GREAT GEORGE STREET	St James's	13	VM Process	LED Large Grey Wornum	£32,000
EBURY BRIDGE ROAD	Churchill	26	VM Process	LED Large Grey Wornum & 3 x LGW embellishment kits	£63,000
LITTLE GEORGE STREET	St James's	4	VM Process	LED Small Grey Wornum	£10,000
UPPER TACHBROOKE STREET	Warwick	3	VM Process	3 x LED LGW Lantern Upgrades complete with signage	£8,000
Total					£236,000

Appendix D4 - Cherished Column Programme 2017/18

The Cherished Column Programme deals with unique street furniture that is of significant historic value. Many of these are protected as 'listed' items of street furniture and therefore protected in law. The cherished column status allocated to this equipment helps protect not only the asset but the street scene of which it is an integral part.

Road	Ward	Existing Assets	Source	Proposed Improvements	Estimated Cost
NEW ROW	St James's	4	N/A	5 X Wall Mounted LED Seven Dial Lantern & refurbishment of Gas Lighting	£40,000
WORLD SQUARES Statue Up-lighting King George & King Charles	St James's	10	N/A	Refurbish the up-lighting of statues on World Squares Project	£30,000
LANTERN UPGRADES VARIOUS	CITY WIDE	7	N/A	Prioritised lantern upgrades from the Cherish asset stock.	£22,000
Total					£92,000

Appendix E – Glossary of Terms

Glossary of Terms

The report contains many abbreviations and the following table provides a summary of these together with their full titles:

Abbreviation	Full Title
ACS	Annual Condition Survey
CI	Condition Index
DVI	Detailed Visual Inspection
HRA	Hot Rolled Asphalt
LIP	Local Implementation Plan
LoBEG	London Bridges Engineering Group
PPM	Planned Preventative Maintenance
SCRIM	Sideway-force Coefficient Routine Investigation Machine
SMA	Stone Mastic Asphalt
TfL	Transport for London
VfM	Value for Money
VM	Value Management