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| Brent | **Cabinet**<br>7th September 2020 |
| | **Report from the Strategic Director of Regeneration and Environment** |

# Highways Carriageway Scheme Programme 2020-21

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| **Wards Affected:** | All |
| **Key or Non-Key Decision:** | Key |
| **Open or Part/Fully Exempt:** | Open |
| **Appendices:** | Appendix 1: Highways Maintenance Programme Completed in 2019/20<br>Appendix 2: Highways Maintenance Programme 2020/21<br>Appendix 3: Ward Abbreviations |
| **Background Papers:** | None |
| **Contact Officer(s):** | Jonathan Westell<br>Highways Contracts & Delivery Manager<br>jonathan.Westell@brent.gov.uk<br>Tel: 020 8937 3660<br><br>Tony Kennedy<br>Head of Service, Highways & Infrastructure<br>tony.kennedy@brent.gov.uk<br>Tel: 020 8937 5151<br><br>Chris Whyte<br>Operational Director, Environmental Services<br>chris.whyte@brent.gov.uk<br>Tel: 020 8937 5342 |

## 1.0 Purpose of the Report

1.1 To approve the Highways Carriageway Scheme Programme for 2020-21.

## 2.0 Recommendations

2.1 That Cabinet approves the proposed Highways Carriageway Scheme Programme 2020-21 as detailed in Appendix B.

## 3.0 Detail

### *3.1 Summary*

3.1.1 In 2019/20 £3.5m of Brent Capital has been spent improving the condition of Brent's roads and highway structures, including resurfacing of around 7.0 miles of road. This equates to about 2.2 % of the road network.

3.1.2 Normally the £3.5m annual figure of Brent Capital is used for the maintenance of carriageways, highway structures and footways. As the footways are the subject of their own £20m major investment programme which is in progress, as was done in 2019/20 it is proposed for 2020/21 to allocate the whole of the £3.5m Brent highways capital to maintain carriageways and highway structures. A total of £500k will be allocated to highways structures with the remaining budget allocated to carriageways. This will have the additional benefit of increasing the amount of planned carriageway repairs whilst delivering planned footway works through the major investment programme.

3.1.3 In previous years, in addition to £3.5m of Brent capital, TfL would add funding for Principal Road (A-road) improvements. Historically this would represent a budget of around £900,000 for resurfacing PRN routes. However, in November 2017 TfL published details of their new five-year Business Plan and between 2018/19 and 2019/20 investment in proactive planned renewals on both the Borough Principal Road Network (BPRN) and TfL Road Network (TLRN) was "paused", with only very limited funding available across London. Brent received no funding in 2018/19. As in 2018/19, the LIP's BPRN Roads funding for Boroughs in 2019/20 was still at the minimal level. Although Brent submitted applications for 2 schemes for 2019/20, no funding was forthcoming. As carriageway surface condition on Bridge Road and East Lane (Harrowdene Road to Oldborough Road) became critical, these sections of the Principal Road Network were resurfaced from Brent Capital Funding.

3.1.4 In 2020/21, it has been confirmed that Brent has received TfL funding of £239,000 to resurface Willesden Lane (Sidmouth Road to Coverdale Road)

3.1.5 This report sets out recommendations for how Brent's base £3.5m capital budget should be allocated during 2020/21 through prioritised programmes of:

- Major Road resurfacing;
- Preventative maintenance
- Carriageway Injection patching
- Improvements to Highway Structures
- Improvements to the public realm, and
- Renewal of Road Markings

3.1.5 This programme will be delivered using Brent's Highway Asset Management Planning (HAMP) approach, which provides a systematic long term methodology for maintaining the borough's highways. The HAMP approach, which was started in 2014/15, delivers better value for money through adoption of a sensible and forward thinking maintenance plan. Additional preventative maintenance programming is being proposed, using injection patching on roads, and is being considered in the form of thin surfacing for existing asphalt pavements.

### 3.2 *Last Year's Highways Maintenance Investment 2019/20*

3.2.1 In 2019/20 Brent's annual highways maintenance investment programme consisted of Brent capital funding only, with no allocation from TfL from LIP funding.

3.2.2 By 31st March 2020, approximately £3.5m was spent on maintaining Brent's carriageways and highway structures funded from Brent capital. Appendix A provides details of the works delivered, which resulted in (amongst other things) around 7 miles of roads being resurfaced.

### 3.3 *Managing Highways Assets*

3.3.1 Highway infrastructure is the most visible, well-used and valuable physical asset owned by the Council. The value of Brent's asset is estimated at around £3.8 bn and include:

- 505 km (315 miles) of roads;
- 847 km (529 miles) of pavements;
- 90 bridges and structures;
- 20700 road gullies;
- 10,000 street trees; and
- 22,848 street lights and other illuminated street furniture.

3.3.2 The table below sets out the condition of Brent's roads by indicating the percentage of each length of road type where maintenance should be considered.

| | % of roads where maintenance should be considered | | |
|---|---|---|---|
| **Year** | **A class roads** | **B and C class roads** | **Unclassified roads** |
| 2008/2009 | 8% | 9% | 23% |
| 2009/2010 | 11% | 9% | 23% |
| 2010/2011 | 9% | 7% | 27% |
| 2011/2012 | 9% | 6% | 26% |
| 2012/2013 | 8% | 9% | 20% |
| 2013/2014 | 13% | 11% | 21% |
| 2014/2015 | 16% | 16% | 21% |
| 2015/2016 | 6% | 10% | 21% |
| 2016/2017 | 6% | 5% | 24% |
| 2017/2018 | 22% | 7% | 21% |
| 2018/2019 | 6% | 7% | 18% |
| 2019/2020 | 1%* | 1%* | 13% |

3.3.3 * The results for A,B and C roads have been produced based on data provided by Vaisala, whose RoadAI product uses computer vision analysis to detect road surface defects . In statistical comparison against traditional Coarse Visual Inspection (CVI) surveys, RoadAI achieved 93% correlation for defect presence. Additional processing is being reviewed, as these results indicate a road condition much better than could be expected from the investment implemented over the previous 12 months.

3.3.4 Unclassified roads make up 80% of all borough roads and currently using traditional CVI surveys, 13% of Brent's unclassified roads are in need of substantial maintenance. Likewise the overall footway condition has improved from 47% in 2018/19 to 42% in 2019/20.

3.3.5 As time goes on roads that are currently in good condition will deteriorate, just like any physical asset such as a house or a vehicle. To keep on top of the deterioration of our asset the council must invest continually in maintenance.

3.3.6 To improve the way the council maintains its highways, the council adopted the Highway Asset Management Plan (HAMP) in February 2014. The HAMP sets out a strategy based

on the need to repair our assets on a regular basis, before they fail, so as to extend their lifespans and reduce higher long term repair costs, and provide the best value for money to local people.

3.3.7 The strategy initially involves introducing a programme of major resurfacing works along with preventative maintenance, which will take the form of thin surface treatment to seal roads against water ingress and improve their anti-skid properties.

3.3.8 During 2019/20 Officers have assessed the network to determine the current condition both for roads and pavements. Officers have then taken account of a range of factors to define relative priorities for maintenance. Officers have used factors to identify roads and pavements suitable for various maintenance treatments that assessed the following:

- Network Condition - condition-based on outcomes of annual condition surveys and inspection programmes;
- Network hierarchy and traffic usage, including proximity of local schools / colleges;
- Risk - Level of risk in terms of numbers of accident claims, historic pothole repair records and/or collision history; and
- Value for Money - The cost effectiveness of preserving roads that have not yet fully deteriorated and fixing those which have.

3.3.9 Preventative maintenance is appropriate where the deterioration in the surface (as measured highway condition survey data) by has not yet resulted in a problems with the underlying structure of the road. Similarly, major resurfacing is required when deterioration has progressed further and so more extensive (and more expensive) repairs are necessary

3.3.10 Officers continued to take account of councillor nominations for road maintenance and, where a number of schemes attract the same or similar scores, Officers prioritise councillor nominated schemes earlier in our proposed maintenance programmes. Officers may also deviate from priority order where, for instance, a section of road in relatively good condition may be resurfaced if it is on a street where the rest of the road needs maintenance and it would be illogical, or impractical, not to resurface the whole street.

3.3.11 Our Asset Management software uses the Council's Survey data to produce scenario-based asset management programmes both on an annual basis and for the long term (5, 10, 15 etc. year programmes) It can:

1. Calculate Asset Condition vs Budget scenario-based programmes taking into account the deterioration of the asset
2. Calculate road and footway condition at the end of a projected term.
3. Calculate the budget required to achieve a given target of road and footway condition at the end of a projected term, taking into account the deterioration of the asset

It can also produce annual road and footway maintenance programmes, including suggested treatments, for defined budgets to give optimum condition, taking into account deterioration of asset. Officers have used this function of the AM tool to draw up the flowing programme elements.

- Major resurfacing of B, C and unclassified roads;
- Preventative maintenance of unclassified roads
- Draft priorities for the major footway investment programme.

### 3.4 Highways Investment during 2020/21

#### 3.4.1 Carriageway Resurfacing

a) The 2020/21 carriageway maintenance programme is shown in Appendix B. Roads have been prioritised from the results of an independent network condition survey, with input from local engineering staff, who assess the road against the wide range of factors noted above. Appendix C gives the key to the Ward name abbreviations used in Appendix B

b) In summary the proposed carriageway resurfacing programme of £3.0m includes:

| **BRENT BASE CAPITAL – 2020/2021** | **£000** |
|---|---|
| Major resurfacing of B, C & unclassified roads; Preventative maintenance unclassified roads | 2120 |
| Injection patching | 500 |
| Injection Patching Traffic Management | 25 |
| Improvements to the public realm | 125 |
| Condition Surveys | 30 |
| Renewal of Road Markings | 50 |
| Carriageway Short Sections | 150 |
| **Total** | **3000** |

(With £0.5m for highway structures making up the £3.5m)

c) In previous years, in addition to £3.5m of Brent capital, TfL would add funding for Principal Road (A-road) improvements. Historically this would represent a budget of around £900,000 for resurfacing PRN routes. However, in November 2017 TfL published details of their new five-year Business Plan and between 2018/19 and 2019/20 investment in proactive planned renewals on both the Borough Principal Road Network (BPRN) and TfL Road Network (TLRN) was "paused", with only very limited funding available across London. Brent received no funding in 2018/19. As in 2018/19, the LIP's BPRN Roads funding for Boroughs in 2019/20 was still at the minimal level. Although Brent submitted applications for 2 schemes for 2019/20, no funding was forthcoming. As carriageway surface condition on Bridge Road and East Lane (Harrowdene Road to Oldborough Road) became critical, these sections of the Principal Road Network were resurfaced from Brent Capital Funding. In 2020/21, it has been confirmed that Brent has received TfL funding of £239,000 to resurface Willesden Lane (Sidmouth Road to Coverdale Road)

d) In summer 2018, a successful programme of injection patch repairs was carried out on unclassified roads (side roads). With this process, a large number of potholes can be treated quickly. A pothole repair can be done in about two minutes – the normal time it usually takes a conventional repair gang to do the job would be 10-15 minutes. The programme went very well, with a large number of defects being fixed across the borough in a short space of time, with minimal disruption and with only one relatively minor complaint.

e) With the £100,000 budget and 2759 repairs done, this worked out at an average of £36 per defect. The 2018 Alarm Survey found that the average cost of filling a pothole on a reactive basis in London is £89 (in the rest of England, £74). For filling a pothole on a planned basis the figures become £56 and £49 respectively. Though it should be pointed out that the process does not claim to provide repairs as long-lasting as traditional patch repairs, there is no doubt that injection patching is a useful addition to our palette of repair types.

f) Given this success, in 2019/20 a two-year contract was let for Injection Works to Velocity UK Ltd and a programme of repairs was carried out with a £500,000 budget to deliver a borough wide programme of injection patching pothole repairs.

g) By the end of the programme on 29th September 2019 Velocity had visited 438 roads in 21 Wards and completed 26,087 repairs an average of 60 repairs a day, with the average cost of a repair being £18.36. The 2019 Alarm Survey found that the average cost of filling a pothole on a reactive basis in London is £63.60 (in the rest of England, £64.7). For filling a pothole on a planned basis the figures become £42.10 and £40.70 respectively.

h) Streets that have been identified to need road closures in order for the injection patching machine to gain access for the repairs, due to their narrowness or the incidence of parked cars. As last year 2019/20 an allowance of £25,000 has therefore been made for the Traffic Management needed to facilitate the road closures.

i) It is proposed to utilise up to £30,000 of Brent capital funding to undertake asset condition surveys during 2019/20. These surveys will assist to prepare a long term asset management programme and confirm future year's capital programmes.

### 3.4.2 Footway Repairs

a) In 2018 the latest survey of the condition of the borough pavements indicates that overall around half are in need of maintenance.

b) Accordingly the Council decided to implement a £20m major investment in the borough's footways over the two years 2019/20 and 2020/21 to improve the condition.

c) Contracts were let with three suppliers who are now engaged in implementing the programme comprising nearly 100 schemes across the borough. At time of writing (start of August 2020) around half (48) of the schemes had been completed

### 3.4.3 Reducing the risk of flooding in Brent

a) Gully cleaning is prioritised to prevent local flooding, with both scheduled and reactive gully cleansing activities taking place. There are approximately 20718 road gullies in the borough. These are cleaned as part of a cyclic maintenance programme procured through the London Highways Alliance Contract (LoHAC). The cleaning cycle includes:

- High-priority (regularly blocking) gullies cleaned every six months;
- 1,300 medium-priority gullies cleaned each year; and
- 14,688 gullies cleaned every twelve months as part of a rolling programme.
- 18,874 gullies cleaned every eighteen months as part of a rolling programme

b) The cleansing frequencies depend on the likelihood of gullies filling up with silt. Monitoring of the contractor's performance continues and the contractor has remained on programme. On-site monitoring of cleansing indicates that last year's improvement in the quality of cleansing has been maintained with monitoring scores of 100% (i.e. all gullies are being cleaned well). Hard to reach gullies (i.e. where there are parked cars over them, or on busy corners) are subject to repeat attendance until cleaned; if necessary other measures (e.g. suspending parking bays) will be considered where necessary.

c) Gullies are also cleaned on a reactive basis in response to reports from members of the public or Councillors of blocked gullies.

d) Small scale schemes are implemented to address localised flooding problems such as broken gullies or gully pipes, or localised gully capacity problems. Larger scale capacity problems are within the remit of Thames Water who are responsible for the main drainage system. Whilst maintenance helps, rainfall which is more intense than the capacity of the network can cope with will still result in localised flooding, which will nevertheless dissipate away down the drains given time

### 3.4.4 Investing in Public Realm

This year it is proposed that the Public Realm programme will continue with an allocation of £0.125m. The works will be to strengthen and protect footways and soft verges, particularly at junctions, to mitigate the effects of vehicle overrun.

### 3.4.5 Improving Brent's bridges and structures

a) The Council are responsible for 90 highway structures, including 60 bridges, 13 retaining walls and 17 culverts. The majority of bridges are small structures spanning brooks. Funding for bridge maintenance is normally allocated by Transport for London on a regional priority basis.

b) In 2020/21, the £0.5m Brent capital will be used for various highway structures tasks including the following:

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|---|
| Kenton Road/ Woodcock Hill Culvert over Wealdstone Brook - Feasibility/ Options report |
| Mead Platt over Mitchell Brook - Special Inspection, Asbestos Management survey |
| Ledway Drive - Concept design of strengthening |
| Forty Avenue Bridge over Wealdstone Brook - Feasibility/ Options report for parapet works |
| Neasden Lane over River Brent - Feasibility/ Options report for strengthening |
| Lyon Park Avenue/ London road - Ecological Appraisal, Asbestos Management Survey, Complete Special Inspection |
| Drury Way over Canal Feeder - Special Inspection |
| Lidding Road/ Shaftsbury Avenue - Parapet assessment |
| Elmstead Avenue over Wealdstone Brook - Special Inspection |
| East Lane Retaining Wall Assessment |

c) The Council's £76k revenue budget will be distributed across numerous structures for routine cyclic maintenance as well as the 2020/21 Principal Inspection programme. The Council's £500k capital budget will be distributed across numerous ongoing structural investigation and improvement schemes which include:

- 2020/21 Principal Inspections
- 2020/21 LB Brent Secondments (includes General Inspections)
- 2020/21 Reactive Maintenance & Interim Measures

### 3.4.6 Renewal of Road markings

a) In recent years up until 2015/16 there was no funding allocated for the systematic renewal of road markings. However, following on from the practice started in 2015/16 officers recommend the continuation of a £50,000 annual renewal programme. This programme will continue to concentrate on the renewal of those markings most in need of attention (e.g. on main roads and at junctions) before in subsequent years establishing a borough-wide schedule of road marking restoration.

b) Renewal of those road markings which are required for enforcement are managed by the Parking & Lighting Service.

## 4.0 Financial Implications

4.1 The table below summarises the actual and proposed allocation of Brent capital funding for highways maintenance during the years 2017/18 - 2021/22:

| **Schemes** | **2017/18 (£ 000)** | **2018/19 (£ 000)** | **2019/20 (£ 000)** | **2020/21 (£ 000)** | **2021/22 (£ 000)** |
|---|---|---|---|---|---|
| **BRENT BASE CAPITAL ALLOCATION** | | | | | |
| Major resurfacing of B, C & unclassified roads; Preventative maintenance unclassified roads | 1,100 | 920 | 2,120 | 2,120 | ALLOCATION TBC |
| Injection patching | | 100 | 500 | 500 | |
| Injection Patching Traffic Management | | | 25 | 25 | |
| Highway Structures | 200 | 200 | 500 | 500 | |
| Improvements to the public realm | 125 | 125 | 125 | 125 | |
| Condition Surveys | | | 30 | 30 | |
| Crossover conversion | 50 | | | | |
| Renewal of Road Markings | 50 | 50 | 50 | 50 | |
| Carriageway Short Sections | 150 | 150 | 150 | 150 | |
| Major Footway Works | 1,825 | 1,955 | 0 | 0 | |
| **Sub-total Base Brent Capital** | **3,500** | **3,500** | **3,500** | **3,500** | **3,500** |

| **BRENT CAPITAL –Major Footway Investment** | **2017/18 (£ 000)** | **2018/19 (£ 000)** | **2019/20 (£ 000)** | **2020/21 (£ 000)** | **2021/22 (£ 000)** |
|---|---|---|---|---|---|
| Thin Surfacing on Existing Asphalt Footways, Major Footway Resurfacing, Refurbishment of Local Shopping Parades, Major Town Centre Refurbishments | 0 | 0 | 5,700 | 12,300 | 2,000 |
| **Sub-total Major Footway Investment** | **0** | **0** | **5,100** | **11,300** | **3,600** |
| ***TfL Funding for Principal Roads*** ** | 886 | 0 | 0 | 239 | 0 |
| **TOTAL HIGHWAY MAINTENANCE PROGRAMME** | **4,386** | **3,500** | **8,600** | **15,039** | **7,100** |

***value could increase if TfL allocate Brent any emergency funding.*

4.2 As noted, in the past the £3.5m annual Brent Capital is used for the maintenance of carriageways, footways and structures. Priorities are identified over time in preparation of the future programme of works. Previously, as exemplified in the two years (17/18 and 18/19), c£2m a year has been allocated to footways. It is proposed to allocate the whole of the base £3.5m Brent highways capital to maintain carriageways and highway structures in 20/21, similar to 19/20.

4.3 In 2020/21, it has been confirmed that Brent has received TfL funding of £239,000 to resurface Willesden Lane (Sidmouth Road to Coverdale Road)

4.4 It is proposed to utilise up to £30k of the £3.5m Brent Base Capital to undertake condition surveys during 2020/21. These surveys will assist preparation of a long term asset management programme.

4.4 Flood risk management expenditure is within the Environmental Service revenue budget and as such is not reflected in the capital programme of works. All required expenditure will be contained within budget.

## 5.0 Legal Implications

5.1 Section 41 of the Highways Act 1980 places a duty on the council as highways authority to maintain the public highway. The Highways Carriageway Scheme Programme must make sufficient provision for the Council to comply with this duty. Breach of this duty can render the council liable to pay compensation if anyone is injured as a result of failure to maintain the highway. There is also a general power under section 62 of the Highways Act 1980 to improve highways.

## 6.0 Equality Implications

6.1 The proposals in this report have been subject to screening there are considered to be no equalities implications that require full assessment. The works proposed under the highways main programme do not have different outcomes for people in terms of race, gender, age, sexuality or belief.

6.2 In addition, the design criteria used in all highway work does take note of the special requirements of various disabilities. These will take the form of levels and grades associated with wheelchair users, for example road crossing points, and for partially sighted / blind persons at crossing facilities. The highway standards employed are nationally recognised by such bodies as the Department for Transport. This programme of works continues the upgrade of disabled crossing facilities at junctions which were not constructed to modern day standards. All new junctions are designed to be compliant at the time of construction.

6.3 Strengthened areas of footway are far less susceptible to damage and will therefore aid the movement of pedestrians that may find it difficult to walk on uneven pavements.

6.4 Officers will make sure accessibility ramps are provided to aid wheelchair users and those with prams. Officer will make sure high visibility barriers and tapping rails are provided to allow those with visual impairments to negotiate the works as they are in progress.

6.5 Officers will make sure of the visibility of the required signage, also where temporary work is being carried out.

6.6 Officers will monitor of the quality of the work to ensure that the finished surface is to specification and does not form a mobility hindrance; and that signage and road markings are correctly provided as aid to movement.

## 7.0 Consultation with Ward Members and Stakeholders

Officers will continue to take account of councillor nominations for road maintenance and, where a number of schemes attract the same or similar scores, Officers will prioritise councillor nominated schemes earlier in our proposed maintenance programmes (see section 3.3.10).

## 8.0 Human Resources/Property Implications (if appropriate

None.

## 9.0 Public Services (Social Value) Act 2012

9.1 The Council is under duty pursuant to the Public Services (Social Value) Act 2012 ("the Social Value Act") to consider how services being procured might improve the economic, social and environmental well-being of its area; how, in conducting procurements necessary to deliver the programme, the Council might act with a view to securing that improvement; and whether the Council should undertake consultation. This duty does not strictly apply to the proposed contract as it is not a services contract. Nevertheless, Officers have had regard to considerations contained in the Social Value Act in relation to the procurement.

***Report sign off:***

***Alan Lunt***

Strategic Director of Regeneration and Environment