



Cabinet
16 March 2015

**Report from the Strategic Director of
Environment and Neighbourhoods**

For Action

Wards Affected:
ALL

Highways Capital Scheme Programme 2015-17

1.0 SUMMARY

- 1.1 In 2014-15 approximately £5.346m will be spent improving the condition of Brent's highways, including resurfacing of 12.8 miles of road and 3.9 miles of footway. This investment includes £3.55m of Brent capital, £1.497k of TfL capital funding for principal (A road) maintenance and £299k allocated by the Department for Transport as a result of the Council's bid to the Pothole Fund
- 1.2 During 2015/16 it is proposed to allocate £3.55m of Brent capital to maintain the highway network, subject to approval of the Cabinet and the Budget and Council Tax report in February 2015 and; full Council approval in March 2015.
- 1.3 In addition to £3.55 million of Brent capital, TfL have on 12th December 2014 confirmed funding of £1.079m of Principal Road (A-road) improvements. This is a decrease against the final 2014/15 Principal road programme value when the total value of the programme (including in-year increases totalling £646 k) was £1,497 m
- 1.4 This report sets out recommendations for how Brent's £3.55m capital budget should be allocated during 2015/16 and 2016/17 through a prioritised programme of:
 - Major and minor pavement upgrades;
 - Major Road resurfacing;
 - Preventative maintenance;
 - Improvements to the public realm , and
 - Renewal of Road Markings
- 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, will deliver better value for money through adoption of a sensible and forward thinking maintenance plan. Our customers see more miles of road maintained each year and have greater visibility as to the relative status of their

roads. We are delivering more on the ground and help to meet many of our corporate and strategic transport objectives by doing so.

2.0 RECOMMENDATIONS

- 2.1 That the Cabinet approves investment of £3.55m of Brent capital funding as summarised in Section 6.0, subject to approval of the Budget and Council Tax report in February 2015 and full council approval of that report in March 2015
- 2.2 That the Cabinet approves the proposed highways maintenance programme for 2015-16 and the provisional programme for 2016-17 as detailed in Appendix B.

3.0 HIGHWAYS INVESTMENT DURING 2014/15

- 3.1 Brent's annual transportation investment programme consists of; Brent capital funding, which is used to fund the roads maintenance programme for local roads; capital funding provided by Transport for London, which is used to deliver principal (strategic) road maintenance and; a programme of highway improvement schemes and sustainable transport projects delivered through the LIP (TFL funded Local Implementation Plan programme).
- 3.2 By 31 March 2015, approximately £5,346m will have been spent on maintaining Brent's highway infrastructure funded through £3.55m of Brent capital , £1.497million of principal road maintenance investment and a £299k DfT Grant. Appendix A provides details of the works delivered, which will result in:
 - 12.8 miles of roads being resurfaced; and
 - 4.28 miles of footways being resurfaced and improved.
- 3.3 Members will recall that Brent entered into a new 8 year contract on 1st April 2013 to provide a range of highway services, including planned and reactive maintenance works. Our new provider was procured through the London Highways Alliance Contract (LoHAC).
- 3.4 Through the 2014/15 LIP programme and combined with Section 106 developer contributions, an additional £6.029m is being invested in improving Brent's roads, footways and transport infrastructure. This includes:
 - £4.857m of Local Implementation Plan LIP funding; and
 - £1.172m S106 developer contributions.

An additional £0.299m was also allocated by the Department for Transport (DfT) under the Pothole Fund.

- 3.5 LIP and S106 funding was allocated to progress the Harlesden Town Centre major scheme, which will be completed during 2014/15.
- 3.6 In addition the Council is on target to deliver a wide range of infrastructure and initiatives in line with TfL expectations. To date we have delivered, or are in the process of delivering, the following infrastructure on Brent's streets as part of a range of schemes and initiatives:
 - 90 areas are being provided with new waiting and loading restrictions to reduce congestion and improve safety;
 - 16 crossings have been improved to provide facilities for disabled people;

- 112 on and off-street cycle parking spaces have been provided (including 5 Lambeth bike hangars providing 30 secure spaces)
- 400 children and 300 adults have received cycle training;
- 2km of new cycle routes have been delivered;
- 13 junctions have been improved to help cyclists;
- 10 new pedestrian crossings have been provided;
- 87 road safety education events have been held;
- 94 bus stops are being improved to help make boarding easier and passenger waiting facilities better; and
- 40 new street trees have been planted.

4.0 MANAGING HIGHWAYS ASSETS

4.1 Highway infrastructure is the most visible, well-used and valuable physical asset owned by the Council. Brent's highways assets include:

- 504 km (315 miles) of roads;
- 847 km (529 miles) of pavements;
- 53 bridges and structures;
- 24,500 road gullies;
- 10,000 street trees; and
- 32,000 street lights and other illuminated street furniture.

The latest estimate for the value of this asset is just over £3.9bn.

4.2 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.

Year	% of roads where maintenance should be considered		
	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%

4.3 Currently 21% of Brent's unclassified roads and 11% of the most used pavements are in need of substantial maintenance. Unclassified roads make up 80% of all borough roads. Classified roads are in slightly better condition, but around 16% of them still require structural maintenance, an increase on the previous year. There are a number of factors affecting the deterioration of roads, the various effects of which are impossible to disaggregate. One explanation is that the high traffic loading to which the classified roads are subjected outweighed the improvement in structure condition which the maintenance programmes was able to achieve, given the limited funding.

4.4 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 we must invest continually in maintenance.

- 4.5 Up until 2014/15 Brent adopted a “worst-first” approach to highways asset management. We identified the worst condition roads and developed one year programmes of road resurfacing and reconstruction.
- 4.6 To better manage the way we maintain our 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 long term repair costs. As asset management practices have only recently been implemented, the highway asset condition is such that we are effectively trading water to broadly maintain our current position.
- 4.7 The strategy initially involves introducing a programme of major resurfacing works along with preventative maintenance, which will take the form of regular thin surface repairs to water seal roads and improve their anti-skid properties. Thin surfacing is less than a third of the cost of major resurfacing works but can extend the life of a road considerably, meaning that you can treat 3kms for the price of 1km of major resurfacing.
- 4.8 A 2 year work programme of both major resurfacing and preventative maintenance has therefore been developed from 2014/15 onwards. This will be the first step towards long-term programme development. To maximise the benefits, a 10 year programme period is recommended. This is an aspiration that we will work towards.
- 4.9 A key question is how we will decide which roads should have preventative maintenance treatment and which we need to undertake major resurfacing works on.
- 4.10 During 2014/15 we have assessed the network to determine the current condition. We have then taken account of a range of factors to define relative priorities for maintenance. We have used a scoring system to identify roads suitable for major resurfacing or preventative maintenance that assessed the following:
- Condition based on outcomes of annual condition surveys and inspection programmes;
 - Road hierarchy and traffic usage, including proximity of local schools / colleges;
 - Level of risk in terms of numbers of accident claims, historic pothole repair records and/or collision history; and
 - The cost effectiveness of preserving roads that have not yet fully deteriorated and fixing those which have.
- 4.11 We continue to take account of councillor nominations for road maintenance and, where a number of schemes attract the same or similar scores, we prioritise councillor nominated schemes earlier in our proposed maintenance programmes. We 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.
- 4.12 The optimum level of investment when starting to adopt preventative maintenance has been identified through consultation with authorities that have implemented HAMP principles. Investment of approximately 30% of carriageway resurfacing budgets is considered to be optimum when beginning to introduce preventative maintenance programmes.

- 4.13 We have therefore continued with the approach approved in the corresponding report last year (Report to the 17th February 2014 Executive: Highways Asset Management Plan and Capital Scheme Programme 2014-16) to invest around 30% of the unclassified carriageway resurfacing budget in preventative maintenance over the next two to three years (i.e. from 2014/15 onwards), and 70% on major resurfacing works. If there is any reduction or increase in funding over coming years, this 70/30 percentage split be applied to revised budgets.
- 4.15 The draft 2016/2017 programme will be reviewed and amended at the end of 2016 in light of condition survey data available at that time. Likewise, the 2015/2016 programme drafted last year has been reviewed and amended in light of condition survey data available now available.

5.0 HIGHWAYS INVESTMENT DURING 2015/16

5.1 Carriageway Resurfacing

- 5.1.1 The 2015/16 carriageway maintenance programme and a provisional 2016/17 programme are shown in Appendix B, and in map form in Appendix C. Appendix D illustrates the location of principal and other classified roads within Brent for information. 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.
- 5.1.3 In summary the proposed carriageway resurfacing programme of £1.67m includes:
- £1.37m to improve the condition of the unclassified network divided between major resurfacing and preventative maintenance schemes (see Appendix B for list of streets that have been selected);
 - £150k to resurface B and C class roads; and
 - £150k to resurface short sections of road (300m or less) that have deteriorated and are in need of resurfacing, but where the whole street is generally in good repair;
- 5.1.5 Each year Brent is provided with an allocation from TfL to renew principal (A class) roads in the Borough. This programme of works is developed through an assessment of need taken from the most recent condition surveys provided by, and reviewed by, TfL. A draft programme for principal road renewals is contained in Appendix B.
- 5.1.6 TfL have allocated “A” road funding of £1.097m to Brent for 2015/16. TfL requests that Boroughs include an additional 25% to their provisional allocation to enable them to put forward one or more reserve schemes. This provides an opportunity for additional schemes to be delivered each year if additional funding becomes available. This “reserve” bid adds a further £270k to the provisional programme value to make a total A Road bid value of £1.367m. Members should note that reserve scheme funding relies on TfL funding availability and is not guaranteed.
- 5.1.7 It is proposed to utilise up to £10k of capital funding for carriageway resurfacing to undertake asset condition surveys during 2015/16. These surveys will assist to prepare a long term asset management programme and confirm the 2016/17 capital programme.

5.2 Footway Repairs

5.2.1 The table below sets out the condition of the busiest footways in the borough (prestige areas in town centres and busy urban shopping areas). High usage footways form approximately 10% of the footway network.

Year	% of the high usage footways where maintenance should be considered
2008/2009	20%
2009/2010	17%
2010/2011	27%
2011/2012	12%
2012/2013	15%
2013/2014	27%
2014/2015	11%

5.2.2 The survey figures indicate that the condition of the high use footway network improved considerably during 2014/15, even allowing for an element of tolerance inherent in these surveys which are visual assessments. The reasons for this improvement cannot be stated with certainty due to the number of considerations involved, but one factor may be that the new LoHAC contractual arrangements are resulting in improved network condition.

5.2.3 However, given that the winter of 2013/14 was the wettest on record there has been continuing and increasing numbers of requests for footway repairs and responsive maintenance on unclassified roads during the current financial year. Given this it is recommended that £1.555m, approximately 44% of this year's overall budget, be assigned to improving the condition of footways in the Borough. Appendix B contains details of the footways which have been prioritised for improvement.

5.2.4 Similarly to the issues with short sections of road that are in poor condition, short lengths of footway that are in poor condition can cost a significant amount in reactive maintenance repairs, as well as being a cause of accident claims. It is therefore proposed to invest £150k of this year's overall budget to resurface short sections of footway.

5.2.5 It is proposed to utilise up to £40k of capital funding for footway improvements to undertake asset condition surveys during 2015/16. These surveys will be used to confirm the 2016/17 capital programme.

5.3 Reducing the risk of flooding in Brent

5.3.1 There are approximately 24,500 road gullies in the borough. These are being cleaned as part of a cyclic maintenance programme procured through the new 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
- 14,100 gullies cleaned every eighteen months as part of a rolling programme.

5.3.2 There are occasions where cleaning will not resolve surface water flooding problems as gullies and drainage pipes require replacement.

5.3.3 We are anticipating similar funding from Defra for flood risk management as was received in 2014/15 which translates into corporately allocated revenue budget of £166k. This will be used for alleviating flooding in the borough and for improvements/upgrades to existing highway drainage as per the following proposed works programme:

Flood management Scheme	Proposed works	Cost Estimate
Various locations in highway	Installation of Land Drainage	£20K
King Edward Park, Wembley		£15K
Silk Stream (Barnet agreement)	Trash screen cleaning at A5 Hendon	£20K
Tramway Ditch, Stag Lane, NW 9	Inspect and clear watercourses	£3K
Northwick Park, Kenton		£6K
Various location	Installation of new gullies to prevent flooding	£30
Drainage Study	Drainage study to identify flooding areas.	£5K
Reactive gully cleaning and various works undertaken through maintenance programme	Clean and repair gullies, replace missing covers, CCTV survey	£65
LoDEG	Bridge Engineering Group Subscription	£1k
Various locations	Provide sand bags to prevent flooding	£1K
Total		£166K

5.4 Investing in Public Realm

5.4.1 The Public Realm programme involves three areas of highways capital programme investment:

- a. Works to strengthen footways and soft verges;
- b. Works to improve areas of “marginal” land that are part of the public highway but are not footways, verges or carriageways; and
- c. Works to maintain, upgrade, rationalise or replace directional and regulatory highway signs.

It is proposed to allocate £125k (3%) of the 2015/16 capital budget to these areas of work.

5.5 Improving Brent’s bridges and structures

5.5.1 The Council are responsible for 53 highway structures, including 38 bridges and; 15 culverts. The majority of bridges are small structures spanning brooks. Funding for bridge maintenance is allocated by Transport for London on a regional priority basis. The London Bridge Engineering Group is currently reviewing the pan-London programme and funding will be confirmed in February 2015.

5.5.2 Although funding has not been confirmed, the Bridge Strengthening Programme 2015/16 Bid Grand Total is £337k, made up for bids for 16 schemes

- a. Allendale Road - Stabilisation of clay embankment to LUL bridge
- b. Mead Platt Over Mitchell Brook - Strengthening of concrete box culvert
- c. North End Road West - Review of old design
- d. The Rise - Stabilisation of clay embankment to LUL bridge
- e. Twybridge Way (1) Over Canal Feeder - Lining of structure to strengthen carriageway and replacement of parapets.
- f. Twybridge Way (2) Over Canal Feeder - Lining of structure to strengthen carriageway and replacement of parapets.
- g. Atlas Road – Assessment inspection
- h. Bridge Road at Woodheyes Road – Assessment inspection
- i. Dury Way over Canal Feeder– Assessment inspection
- j. Grand Union Canal near the NCR – Assessment inspection
- k. Grange Museum Footbridge – Assessment inspection
- l. Hannah Close – Assessment inspection
- m. Mount Pleasant/Carlyon Road – Assessment inspection
- n. Point Place over Wembley Brook – Assessment inspection
- o. Sudbury Heights Ave/Maybank open space – Assessment inspection
- p. Sudbury Heights Avenue/District Road – Assessment inspection
- q. White Horse Bridge – Assessment inspection

5.6 Renewal of Road markings

5.6.1 Currently there is no funding allocated for the systematic renewal of road markings. Consequently many road markings have faded beyond the point we would wish them to; those road markings which have faded more than 30% and which are deemed high priority are renewed under the LoHAC contract. However, officers are now recommending the institution of a £50k annual renewal programme. Initially it is intended that this will concentrate on the renewal of those markings most in need of attention before (in subsequent years) establishing a borough-wide schedule of road marking restoration.

6.0 FINANCIAL IMPLICATIONS

6.1 The table below summarises the proposed allocation of Brent capital funding for highways maintenance during 2015-16:

Schemes	% of Capital Budget	Amount (£ 000's)
BRENT CAPITAL – Footways		
Major footway upgrade	43.80%	1,555
Footway upgrades – short sections	4.23%	150
Improvements to the public realm	3.52%	125
Sub-total	51.55%	1,830
BRENT CAPITAL – Carriageways		
Major resurfacing unclassified roads	27.32%	970
Preventative maintenance unclassified roads*	11.27%	400
Major resurfacing of B&C roads	4.23%	150
Road resurfacing – short sections	4.23%	150
Renewal of Road Markings	1.41%	50

	Sub-total	48.45%	1,720
	Sub Total Brent Capital		3,550
	<i>TfL Funding for Principal Roads**</i>		1,097
	TOTAL HIGHWAY MAINTENANCE PROGRAMME		4,647

**around 30% of value of £1.370m unclassified carriageway resurfacing programme*

***value could increase if TfL agree to deliver reserve schemes.*

- 6.2 The provisional allocation for 2016/17 assumes the same division of funding. The final programme for 2016/17 and beyond will be confirmed and reported to the Executive for approval during 2015/16.
- 6.3 It is proposed to utilise up to £10k of carriageway maintenance allocation and £40k of footway allocation to undertake condition surveys during 2015/6. These surveys will assist preparation of a long term asset management programme and confirm the 2016/17 programme.
- 6.4 The proposed approach to major road resurfacing and preventative maintenance assumes an approximate percentage split of funding of 70% and 30% respectively. Should there be any reduction or increase in the value of the Brent capital programme in future years, it is proposed to apply these approximate percentage splits to revised budgets.
- 6.5 Flood risk management expenditure is within the ENS revenue budget and as such is not reflected in the capital programme of works. The DEFRA flood grant was incorporated into the ENS revenue base a number of years ago and the grant taken centrally. As such all required expenditure will be contained within the revenue budget.
- 6.6 A bid for capital funding has been submitted to the London Bridge Engineering Group of the TfL in the sum of £337k for the 2015/16 which if successful would be additional to items included in the table at 6.1 above. Notification on the progress of the bid is due to be received in February 2015. The 2014/15 capital programme does not include any funding from this source and there are currently no schemes for improving Brent's bridges and structures.

7.0 LEGAL IMPLICATIONS

- 7.1 The Highways Act 1980 places a duty on the council to maintain the public highway under section 41. Breach of this duty can render the council liable to pay compensation if anyone is injured as a result of failure to maintain it. There is also a general power under section 62 to improve highways.

8.0 DIVERSITY IMPLICATIONS

- 8.1 The proposals in this report have been subject to screening there are considered to be no diversity implications that require partial or 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.

- 8.2 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.
- 8.3 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.

BACKGROUND PAPERS

None

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APPENDIX A

Unclassified Roads Resurfaced during 2014/15

Unclassified Roads Resurfaced (£980k)	Length (m)	Ward
Heather Park Drive (Highcroft Avenue to The Grange)	425	ALP
Links Road	220	DOL
Milton Avenue (Windrush to end north west)	253	STN
The Circle	345	DNL
Brenthurst Road	245	DNL
Denzil Road	503	DNL
Bolton Road	140	HAR
Briar Road (Kenyngton Place to Upton Gardens)	210	KEN
Northwick Circle	541	KEN
Claremont Avenue	200	KEN
Clarence Road	109	KIL
Exeter Road (Shootup Hill to Mapesbury Road)	473	MAP
Meredith Avenue	90	MAP
Byron Road (East Lane to Ada Road)	200	NPK
Carlton Avenue East (Preston Road to Windermere Avenue)	757	PRE
Logan Road	368	PRE
Compton Road	245	QPK
Twybridge Way	382	STN
Conduit Way	589	STN
Homefield Road	288	SUD
St Michaels Avenue (Vivian Avenue to Harrow Road)	240	TOK
Chalfont Avenue (Oakington Manor Drive to Vivian Avenue)	260	TOK
Clifton Avenue	240	WEM
Jesmond Avenue	280	WEM
Totals	7.60km	
(miles)	(4.72)	

Preventative Maintenance during 2014-15

Preventative Maintenance (£420k)	Length (m)	Ward
Mount Pleasant (Ealing Road to Woodstock Road)	390	ALP
Barn Way	625	BAR
Alverstone Road	247	BPK

Hanover Road (Sidmouth Rd to o/s property numbers 170/172)	53	BPK
Randall Avenue (NCR to Tanfield Avenue)	400	DOL
Cobbold Road (Franklin Road to Roundwood Road)	252	DNL
Crundale Avenue	483	FRY
Harlesden Road (Longstone Avenue to Robson Avenue)	480	KGN/ WLG
Draycott Avenue (Wellacre Road to Woodcock Dell Avenue)	873	KEN
The Ridgeway (Draycott Avenue (west) to end)	45	KEN
Cedar Road	180	MAP
Oldborough Road	465	NPK
Melrose Gardens	315	QBK
Wyborne Way (NCR to Sunny Crescent)	327	STN
Repton Avenue	201	SUD
Parkfields Avenue	156	WHP
The Rise	217	WHP
St.James Gardens (Ealing Road to corner No 7)	75	WEM
Glebe Road	128	WLG
Totals	5.91km	
(miles)	(3.67)	

Short Sections Resurfaced during 2014/15

Short Sections Carriageway Resurfaced (£150k)	Length (m)	Ward
Brent Main Programme £150k		
Cambridge Avenue (20 to 56)	200	KIL
Stanley Gardens (2 to 22)	90	MAP
Harrow Road (o/s 792)	4	SUD
Forty Avenue (j/w The Avenue)	26	BAR
Mayfields (19 to 35)	118	BAR
Northwick Avenue (14 to 54)	210	NPK
Trevelyan gardens (Chelmsford Square)	38	BPK
Aldershot Road	137	KIL
Wembley High Road (o/s 522)	14	WEM
Neasden Lane (o/s scrap yard on crossover)	22	DNL
Preston Road (51 to 59)	55	PRE
East lane (o/s 313)	6	SUD/NPK
Claredon Gardens (on roundabout j/w The Dene)	30	PRE
Claredon Gardens (on roundabout j/w Queenscourt)	30	PRE
DfT Pothole Grant £298k		
Barrettes Green Road (j/w Acton Lane to junction with Central Road)	175	STN

Lydford Road (j/w Sidmouth Road)	55	BPK
Bridge Road (o/s 45 to j/w Gresham Road)	220	STN
Woodheyes Road (o/s 27 to opposite 105)	200	STN
Ilex Road (o/s 17 to j/w church Road)	124	DNL
Wyld Way (Grove Way to junction with Oakington Manor Drive)	240	TOK
Tanfield Avenue (26 to 38)	50	DNL
Winchfield close (o/s 24)	6	KEN
Coles Green Road (o/s 72)	20	DOL
Coles Green Road (16 - j/w Dollis Hill Lane)	122	DOL
Woodstock Road (Mount Pleasant to 57)	250	ALP
Wrottesley Road (roundabout j/w All Souls Avenue)	12	KGN
Totals	2.45km	
(miles)	(1.52)	

Non-Principal Classified B&C Roads Resurfaced during 2014/15

Carriageway Resurfacing (£150k)	Length (m)	Ward
Sidmouth Road (Mount Pleasant to Chamberlayne Road)	295	BPK
Pound Lane (exit from bus depot to Harlesden Road)	328	WLG
Totals	0.62km	
(miles)	(0.39)	

Principal A Roads Resurfaced during 2014/15

Principal (A Road) Maintenance Programme (£851k)	Length (m)	Ward
A407 High Road Willesden (Dudden Hill Lane to Church Rd)	752	WLG/DNL
A4088 Forty Avenue (East Lane to Talisman Way)	296	PRE
A404 Craven Park Road (Tunley Road to St.Marys Road)	247	HAR
A4089 Ealing Road (Bowrons Avenue to Douglas Avenue)	217	WEM/ALP
A404 Hillside (Sunny Crescent to Brentfield Road)	472	STN
A4003 Willesden Lane (Dyne Road to Kilburn High Road)	698	KIL
A404 High Road Wembley (Park Lane to Cecil Avenue)	188	WEM
Additional Funding (£646k)		
Neasden Lane North (Press Road to Coombe Road)	258	WHP
Manor Park Road	136	HAR
High Street Harlesden	248	HAR
Chichele Road (junction of Anson Road)	46	MAP
High Road Willesden (Brondesbury Park to Walm Lane)	302	WLG
Craven Park Road (Manor Park Road to Crownhill Road)	170	HAR
Totals	4.03km	
(miles)	(2.50)	

Footway Resurfacing completed in 2014/15

Footways Resurfaced (£1525k)	Length (m)	Ward
Garden Way	385	STN
Donnington Road	870	KEN
Chapter Road (Balmoral Road to Deacon Road)	896	WLG
Elmstead Avenue (Preston Road to Princess Avenue)	521	PRE
Odessa Road	300	KGN
Hampton Rise	120	KEN
Cedar Road	636	MAP
Dalmeny Close	300	SUD
Thurlby Road	772	WEM
Salisbury Road (Harvist Road to Windermere Avenue)	734	QPK
Kinch Grove	378	BAR
Hillside (PRN funded)	256	STN
Totals	6.16km	
	(3.83)	

Short Sections of Footway Resurfacing completed in 2014/15

Short Sections Footway Resurfaced (£150k)	Length (m)	Ward
St Annes Road (1 to 9)	19	WEM
Ridley Road (side off 1 to 21)	48	KGN
Alexzander Avenue (6 to 14)	38	BPK
Winchester Avenue (18 to j/w Willesden Lane)	62	QPK
Clarence Road (opposite 1)	8	KIL
Torbay Road (63 to 79)	32	KIL
Torbay Road (87 to Dyne Road)	39	KIL
Winchfield Close (o/s 24)	6	KEN
Treveleyan Crescent (1 to 5)	12	KEN
Swinderby Road (18 to 24)	11	WEM
Vincent Road (opposite 3)	18	ALP
Fernleigh Court (opp 5 to j/w Carlton Avenue East)	55	PRE
Woodhill crescent (o/s 51)	6	KEN
Clarendon Gardens (jw The Dene & Queenscourt)	42	PRE
Dyne Road (o/s 1 to 8 John Stewart House)	31	KIL
Stanley Gardens (2 to j/w Blenheim Gardens)	97	MAP
Randall Avenue (61 to 71)	26	DOL
Carlton Avenue East (o/s 71)	8	PRE
Thomas A Becket Close (28 to end)	34	SUD
Shaftesbury Ave (o/s 14)	12	KEN
Blair Avenue (18 to 20)	19	WHP

Fryant Way (s/o 23)	8	FRY
Dudden Hill Lane (j/w Southview)	9	DNL
Teignmouth Road (o/s 4)	6	MAP
Kenwyn Drive (7 to NCR)	3	DOL
Kenwyn Drive (12 to 14)	55	DOL
The Ridgeway (o/s 67)	9	KEN
Stanley Avenue (opp 44 outside school entrance)	11	ALP
Foxholt Gardens (j/w Wybourne Way to opp 9)	6	STN
Totals	0.73km	
(miles)	(0.45)	

APPENDIX B

Highways Maintenance Programme 2015 to 2017

Unclassified Borough Roads - Major and preventative maintenance programmes 2015-16

Major resurfacing programme 2015-16	Length (m)	Estimated Cost (£k)	Ward
Colwyn Road	54	14	DOL
Dawpool Road (Heather Road to Brook Road)	231	31	DOL
Hardinge Road	490	64	BPK
Mapesbury Road (Willesden Lane to bridge)	373	55	BPK
Lydford Road	895	128	BPK
Garnet Road	165	24	HAR
Upton Gardens (Briar Road to Northwick Circle)	245	32	KEN
Donnington Road	438	60	KEN
Cranleigh Gardens	330	43	KEN
Victoria Road	700	95	KIL
James Avenue	103	19	MAP
Grosvenor Gardens	180	26	MAP
Shelley Gardens	210	25	NPK
Kingsway	385	52	PRE
Holmstall Avenue	420	57	QBY
Wimborne Drive	223	33	QBY
Girton Avenue	515	67	QBY
Capitol Way	763	107	QBY
Crouch Road	220	28	STN
Totals	6.94km	960	
(miles)	(4.31)		
Preventative Maintenance Programme 2015-16	Length (m)	Estimated Cost (£k)	Ward
Barn Rise	703	51	BAR
Belvedere Way	420	37	BAR
Kingsmere Park	307	20	BAR
Christchurch Avenue (Willesden Lane to Brondesbury Park)	215	24	BRO
Rosecroft Gardens	105	8	DOL
Bush Grove	493	44	FRY
Old Kenton Lane	540	37	FRY
Summit Close	140	9	FRY
Wakemans Hill Avenue	608	69	FRY
Longstone Avenue (Drayton Road to Harlesden Road)	378	41	KGN/W LG
Southwell Road	96	10	KEN
Mapesbury Road (Teignmouth Road to Shoot Up Hill)	196	24	MAP

Montpelier Rise	420	26	PRE
Totals	4.62km	400	
(miles)	(2.87)		

Non-Principal B & C Roads - Major maintenance programme 2015/16

Carriageway Resurfacing B & C Roads	Length (m)	Estimated Cost (£k)	Ward
Wrentham Avenue	366	53	QPK
Chamberlayne Road (junction with Hardinge Road)	45	22	BPK
Chamberlayne Road (junction with Station Terrace)	20	9	QPK
Brentfield Road (NCR to outside school)	441	66	STN
Totals	0.87km	150	
(miles)	(0.54)		

Major resurfacing of short sections 2015/16

Short Sections of Carriageway Resurfacing	Length (m)	Budget (£k)	Ward
Sites to be prioritised during financial year	TBD	150	-

Renewal of Road Markings 2015-16

Renewal of Road Markings	Length (m)	Budget (£k)	Ward
Sites to be prioritised during financial year	TBD	50	-

Principal (A Road) Maintenance Programme 2015/16 - funded by TfL

Principal (A Road) Maintenance Programme	Length (m)	Estimated Cost (£k)	Ward
A404 Hillside NW10 (Wesley Road to Brentfield Road - also to include 754mts of footway upgrade)	350	448	STN
A4088 Forty Avenue (Corringham Road to Barn Rise)	240	140	BAR
A404 Craven park (Knatchbull Road to St Albans Road)	290	190	STN/HAR
A4005 Ealing Road (Glacier Way to Carlyon Road)	280	110	ALP
A4005 Bridgewater Road (Junction Manor Farm Road)	130	98	ALP
A5 Edgware Road (Chicele Road to Temple Road)	350	111	MAP
Totals	1.64km	1097	
(miles)	(1.01)		
Reserve Scheme			
A4006 Kingsbury Road (Honeypot lane to Valley drive)	550	252	QBY/FRY

Note: programme identified through the results of a London-wide SCANNER survey and to be funded by TfL. All schemes are subject to co-ordination with internal and external agencies.

Footway Improvements to be funded by Brent Capital Budget in 2015/16

Footway Resurfacing	Length (m)	Estimated Cost (£k)	Ward
Wembley Hill Road (Wembley Park Drive to East Lane)	610	179	PRE
Roe Green	840	246	FRY
Grasmere Avenue (College Road to Preston Road)	926	251	PRE
Cranleigh Gardens	600	151	KEN
Hardinge Road	966	241	BPK
Harrowdene Road (East Lane to Barley Close)	616	178	SUD
Riffel Road	724	196	DNL
Robson Avenue (West side only)	320	73	WLG
Totals	5.60km	1515	
(miles)	(3.48)		

All schemes subject to co-ordination with internal and external agencies.

Other footway improvements 2015/16

Footway Short-section Improvements	Length (m)	Budget (£k)	Ward
Sites to be prioritised in-year	TBD	150	-

Public Realm improvements 2015/16

Public Realm Improvements	Length (m)	Budget (£k)	Ward
Sites to be prioritised in-year	TBD	125	-

Provisional Highways Maintenance Programme 2016/17

Unclassified Borough Roads - Major and preventative maintenance programmes

Major resurfacing programme 2016/17	Length (m)	Estimated Cost (£k)	Ward
Limesdale Gardens	345	44	QBY
Park Chase	410	42	TOK
Vivian Avenue (Chalfont Avenue to Monks Park)	228	30	TOK
Verney Street	305	39	WHP
Elspeth Road	95	11	WEM
Barnhill Road (section near Waterside Close)	60	8	BAR
Canterbury Terrace	120	16	KIL
Wycombe Road	140	21	ALP
Bathurst Gardens (property no 2 to Wrottedley Road)	510	66	KGN
Buck Lane (Hay Lane to Highfield Avenue)	287	36	FRY
Winchelsea Road (Knatchbull Road to Farm Road)	206	41	STN
Brownlow Road	290	38	HAR
Melrose Avenue	899	119	DNL
Eton Avenue (Charterhouse Avenue to Repton Avenue)	230	18	SUD
Oakdale Avenue	160	17	KEN
Maybank Avenue (Greenbank Avenue to Harrow Road)	365	46	SUD
Langler Road	225	29	QPK
Sudbury Hill Close	255	26	NPK
Warfield Road	90	12	QPK
Burrows Road	312	36	QPK
Fairlight Avenue (Minet Avenue to Acton Lane)	95	16	HAR
Geary Road (Cullingworth Road to Park Avenue North)	271	35	DNL
Mostyn Avenue	263	34	TOK
Ballards Road	306	39	DOL
Mordaunt Road	245	33	STN
Mostyne Gardens	132	17	QPK
Perrin Road	135	19	NPK
Buckingham Road	292	37	KGN
West Way	321	35	WHP
Totals (not including reserve schemes)	7.59km	960	
	(4.71)		
Reserve Schemes			
<i>Fourth Way</i>	380	53	TOK

<i>Ebrington Road</i>	380	50	KEN
<i>Chalkhill Road</i>	90	12	BAR
<i>Kempe Road</i>	452	73	QPK
<i>Nightingale Road</i>	275	38	KGN
<i>Callcott Road</i>	275	39	KIL
Total Reserves	1.85km	265	
	(1.14)		
	(miles)		
Preventative Maintenance Programme 2016-17	Length (m)	Estimated Cost (£k)	Ward
The Croft	260	17	SUD
Village Way	420	27	WHP
Napier Road	227	16	WEM
Chaplin Road (Belton Road [north] to Villiers Road)	171	14	WLG
Grendon Gardens	375	18	BAR
Kinch Grove	125	9	BAR
Lewgars Avenue	250	19	FRY
Bush Grove (Slough Lane to Holly Grove)	252	24	FRY
Lyon Park Avenue (Woodstock Road to property no 196/198)	266	26	WEM
North Way	362	33	QBY
The Crossways	350	21	BAR
Lancaster Road	245	25	DNL
Windermere Avenue (Ennerdale Gardens to Coniston Gardens)	298	27	PRE
Aboyne Road (Neasden Lane to Annesley Close)	85	9	WHP
Bryan Avenue (Donnington Road to Rowdon Avenue)	290	28	BPK
Copland Avenue	200	24	SUD
Copland Close	49	5	SUD
Dacey Avenue	252	21	MAP
Furness Road (Wrottesley Road to High Street Harlesden)	315	37	KGN
Totals (not including reserve schemes)	4.79km	400	
	(2.98)		
	(miles)		
Reserve Schemes			
<i>All Souls Avenue (Bathurst Gardens to Herbert Gardens)</i>	312	37	BPK
<i>Dobree Avenue</i>	342	34	BPK
<i>Gardiner Avenue</i>	130	11	MAP
<i>Minet Gardens</i>	64	6	HAR
<i>Uffington Road</i>	360	34	WLG
<i>Kings Drive (Greenhill Way to property no 41)</i>	165	15	BAR
<i>Oldfield Road</i>	445	44	HAR

<i>Princess Road (Cambridge Gardens to property no 19)</i>	246	27	KIL
<i>Priory Gardens</i>	275	23	NPK
<i>Torbay Road</i>	310	29	KIL
<i>Carlisle Road</i>	200	20	QBY
Total Reserves	2.85km	280	
(miles)	(1.77)		

Non-Principal B & C Roads - Major maintenance programme 2016/17

Carriageway Resurfacing	Length (m)	Estimated Cost (£k)	Ward
Sites to be prioritised based on survey results in 2015	TBD	150	-

Major resurfacing of short sections 2016/17

Short Sections of Carriageway Resurfacing	Length (m)	Estimated Budget (£k)	Ward
Sites to be prioritised during 2016	TBD	150	-

Renewal of Road Markings

Renewal of Road Markings	Length (m)	Budget (£k)	Ward
Sites to be prioritised during 2016	TBD	50	-

Principal (A Road) Maintenance Programme 2016/17 - funded by TfL

2016/17 Schemes will be identified by the results of a London-Wide Scanner Survey and to be funded by TfL. All schemes are subject to co-ordination with internal and external agencies.

Footway Improvements to be funded by Brent Capital Budget in 2016/17

Footway resurfacing 2016/17	Length (m)	Estimated Cost (£k)	Ward
Regal Way (Westward Way to Shaftesbury Avenue)	958	267	KEN
Chandos Road	460	127	DNL
Townsend Lane (Kingsbury Road to Kingsmead Avenue)	1572	249	FRY
Elthorne Road	610	168	WHP/FRY
Mallard Way	744	221	WHP
Chalfont Avenue (Oakington Manon Drive to Brent Way)	162	75	TOK
Geary Road (Cullingworth Road to Park Avenue North)	542	139	DNL

Manor House Drive	976	269	BPK
Totals (not including reserve schemes)	6.02km	1515	
(miles)	(3.74)		
Reserve Schemes			
Medway Gardens	810	189	SUD
Mostyne Avenue	652	166	TOK
Woodcock Hill (Kenton Road to Dovedale Avenue)	958	264	KEN
Totals	2.4km	619	
(miles)	(1.49)		

Other footway improvements 2016/17

Footway Short-section Improvements	Length (m)	Estimated Cost (£k)	Ward
Sites to be prioritised during 2016	TBD	150	-

Public Realm improvements 2016/17

Public Realm Improvements	Length (m)	Estimated Budget (£k)	Ward
Sites to be prioritised during 2016	TBD	125	-

APPENDIX C

WARD ABBREVIATIONS

<u>WARD</u>	<u>ABBREVIATION</u>
- ALPERTON	ALP
- BARNHILL	BAR
- BRONDESBURY PARK	BPK
- DOLLIS HILL	DOL
- DUDDEN HILL	DNL
- FRYENT	FRY
- HARLESDEN	HAR
- KENSAL GREEN	KGN
- KENTON	KEN
- KILBURN	KIL
- MAPESBURY	MAP
- NORTHWICK PARK	NPK
- PRESTON	PRE
- QUEENS PARK	QPK
- QUEENSBURY	QBY
- STONEBRIDGE	STN
- SUDBURY	SUD
- TOKYNGTON	TOK
- WEMBLEY CENTRAL	WEM
- WELSH HARP	WHP
WILLESDEN GREEN	WLG

APPENDIX D

MAP OF PROPOSED CARRIAGEWAY AND FOOTWAY RESURFACING PROGRAMME 2015-17

SEE ATTACHMENT

APPENDIX E

MAP OF PRINCIPAL AND OTHER CLASSIFIED ROAD NETWORK IN BRENT

SEE ATTACHMENT