

5.3. Mayoral Priority Area: Improving Bus Journey Times and Reliability

MTS Policy and/or Proposal

Proposal 4F.2: TfL will devote greater resources to reviewing and improving the performance and reliability of individual routes through more effective operational management, in partnership with the operators, London boroughs and enforcement agencies

Proposal 4F.3: TfL, with the operators, London boroughs, and other interested parties, will ensure sufficient bus garage and standing facilities can be provided to meet the needs of the London bus network, including the requirements of the revised contracting regime and to facilitate the expansion of the network.

Proposal 4F.6: Bus priority and protection against congestion will be substantially increased on all bus routes London-wide, both in the amount of street space allocated and the time of operation. The current phase of the LBPN will be completed by April 2004

Proposal 4F.7: All bus routes will be effectively enforced, to protect against illegal stopping and other traffic offences, using cameras wherever possible. Emergency vehicles operated by the police, London Ambulance Service or London Fire Service will be able to use bus lanes at all times. All bus stops on routes with 24-hour bus services or routes in the London Bus Initiative or London Bus Priority Network will have 24 hour bus stop clearways. At other stops there will be a general presumption in favour of 24-hour clearways but as a minimum, there must be clearways that cover the operating hours of the bus route.

Proposal 4F.8: TfL and the boroughs will promote and implement a package of whole route enhanced, intensified and enforced bus priority measures on major bus corridors. Together with other complementary measures, this will provide a high quality, fully accessible bus network on the London Bus Initiative BusPlus routes.

Proposal 4G.4: TfL, working with the police and the London boroughs, will introduce camera enforcement on all 700 bus lanes in Greater London by April 2002.

5.3.1 The Council has a commitment to introducing further bus priority measures. We have supported the implementation of the London Bus Priority Network since its inception and are including the common statement below.

Common Statement on London Bus Priority Network

Introduction

The London Bus Priority Network (LBPN) was originally an 865km network of borough roads across London that complemented the Priority (Red) Routes. It was developed in 1994 by the 33 boroughs and London Transport who jointly developed in liaison with the Government Office for London (GOL) and the then Traffic Director for London, a cross boundary bus network for the whole of London. To aid boroughs with funding and to assist buses off the original Network from 2003, the LBPN covers all borough roads that carry buses.

The LBPN partnership is well established and recognised by TfL and boroughs alike. The LBPN is now in its eleventh year and has been preparing a consistently accepted annual bid on behalf of boroughs for bus priority.

Project Development

The cost for the implementation of bus priority schemes on the London Bus Priority Network should continue to be financed at no cost to the local authorities. Over the eleven years the project has been allocated a total of £146.65 million and the recent announcement of a further £19 million for expenditure in 2005/06 is testimony to the success of the LBPN as a partnership delivering effective bus priority schemes across the Capital

Up to the end of March 2004 the LBPN as a project has resulted in the boroughs implementing over 3,500 bus priority schemes.

Continuing support for the LBPN Partnership

Haringey Council is committed to the continued support for the LBPN as a partnership that will:

- allow a co-ordinated approach to bus priority and provide a London-wide strategy that all boroughs could follow.
- ensure that the management structure remains in place to allow the boroughs to retain their independence but at the same time provide a co-ordinated approach and effective working on the project.
- Co-ordinate future year's package bids for funding through the appropriate bidding processes

Performance Indicators/Targets

There are two PIs/Targets that must be achieved by TfL and the boroughs. These are:

- Bus Excess Wait Time [EWT]: TfL to reduce bus EWT to 1.3 minutes per passenger journey by 2009/10
- Bus Journey Times: the bus journey times target will be set by summer 2005

5.3.2 Current performance [based 3rd Quarter 2005/6 QSI data] is an average 1.4 for all high frequency routes operating at least part of their

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length within Haringey. However, TfL have provided a new target which does not relate to bus excess wait time.

5.3.3 TfL borough bus target is:

- Boroughs are to reduce, or maintain at 2005 levels, bus journey times on London Bus Initiative [LBI] bus routes.

The performance indicators are:

- Average bus journey times along the LBI routes within each borough for time periods as follows:

AM peak [Monday to Friday 07.00 – 10.00]

Inter peak [Monday to Friday 10.00 – 16.00]

PM peak [Monday to Friday 16.00 – 19.00]

Other periods as appropriate to route section and agreed between borough and TfL [eg Sunday 12.00 – 17.00]

- Total bus lane kilometres/hours in operation per borough
- Number and percentage of accessible bus stops per borough

5.3.4 Table 5.3.1 provides details on the routes to be assessed and current route performance as provided by TfL.

Table 5.3.1 Haringey LBI Routes

Route	Direction	Distance [m]	Mon-Fri AM peak		Mon-Fri Inter peak		Mon-Fri PM peak	
			Mean Bus Journey Time [minutes]	Mean Bus Speed [km/h]	Mean Bus Journey Time [minutes]	Mean Bus Speed [km/h]	Mean Bus Journey Time [minutes]	Mean Bus Speed [km/h]
29	Northbound	5775	23.57	15.1	29.44	12.1	35.52	10
29	Southbound	6029	30.41	12.4	30.9	12	31.77	11.7
43	Northbound	3206	11	19.2	10.81	18.8	12.46	16.3
43	Southbound	3513	16.7	13.4	14.52	15.5	13.96	15.6
123	Eastbound	5933	27.15	13.3	29.94	12.1	33.5	10.9
123	Westbound	3608	15.71	14.3	15.28	14.4	16.52	13.5
144	Northbound	6535	31.29	13	37.76	10.8	41.42	10
144	Southbound	6464	38.39	11.5	32.16	12.1	36.13	11.1
149	Southbound	1022	22.79	14.5	24.89	13.1	23.69	13.9
149	Northbound	1055	0	0	0	0	0	0

Schemes/Programme for 2005/6 – 2010/11

5.3.5 Consultants have assisted in the development of the bus priority programme. Data was collated and analysed relating to the following areas:

- Location of A roads and Busy Bus Routes
- Route patronage
- Route frequency
- Current problem areas and root causes
- List of schemes already implemented
- Bus lane locations

The location of A roads and Busy Bus Routes and route patronage data has been provided by TfL Buses. Route frequency data has been derived from timetables. TfL Buses have provided information on current problem areas which is shown in Table 5.3.2, together with other congestion locations identified. The Council has implemented bus priority measures through LBP, LBI1 and LBI2. These measures have benefited bus movement on the following routes: route 43 [Total Route Upgrade], routes 29/329, 134, 144, 149, and 279 [LBI1] and route 123 [LBI2]. In addition Route 149 has benefited from intensified bus priority under a separate Flagship Programme. The Council has commissioned consultants to develop bus priority options for routes W3, W4 and W5. Similar work has been undertaken for route W7. This work has informed the development of schemes being funded through the BSP for 2005/6 and 2006/7. Completed works for 2005/6 included:

Route W3 – Tottenham High Road signal re-timing and loading bays on Lordship Lane

Route W4 – preparatory work for signalisation of White Hart Lane/Wood Green High Road junction

Route W5 – entry treatment to assist bus movement on Weston Park

5.3.6 The programme for 2006/7 comprises the following projects:

Routes W4, 29, 121, 232 and 329 – White Hart Lane/Wood Green High Road junction signalisation

Routes 123, 144, 217, 231, 243 and 444 – Lordship Lane between Boreham Road and The Roundway – inset loading bays, bus lane amendments [funding committed for 2007/8]

Routes 144, 217, 231 and 444 – The Roundway bus pre-signal [funding committed for 2007/8]

Routes 29, 41, 67, 141, 144, 230 and W4 – West Green Road/Green Lanes contra-flow bus lane study, traffic signal modification [funding committed for 2007/8]

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Routes 29, 121, 144, 184, 221, 232, 243, 329, W3 and W4 – signal timing study for Wood Green High Road/Station Road junction [funding committed for 2007/8]

Routes 29, 121, 144, 184, 221, 232, 243, 329, W3 and W4 – redesign of Wood Green High Road/Station Road junction [funding committed for 2007/8]

Routes 43 and 144 – Colney Hatch Lane in the vicinity of Greenham Road widening of pinch point, amendments to waiting and loading restrictions [funding committed for 2007/8]

5.3.7 A survey was carried out by the consultants to verify that all road markings and signage were in place to ensure maintenance of enforcement. The results are shown in Table 5.3.2.

5.3.8 The submission for 2007/8 is based on bus “Hotspot” data provided by TfL and local bus operators. Details are provided in the Form 1s.

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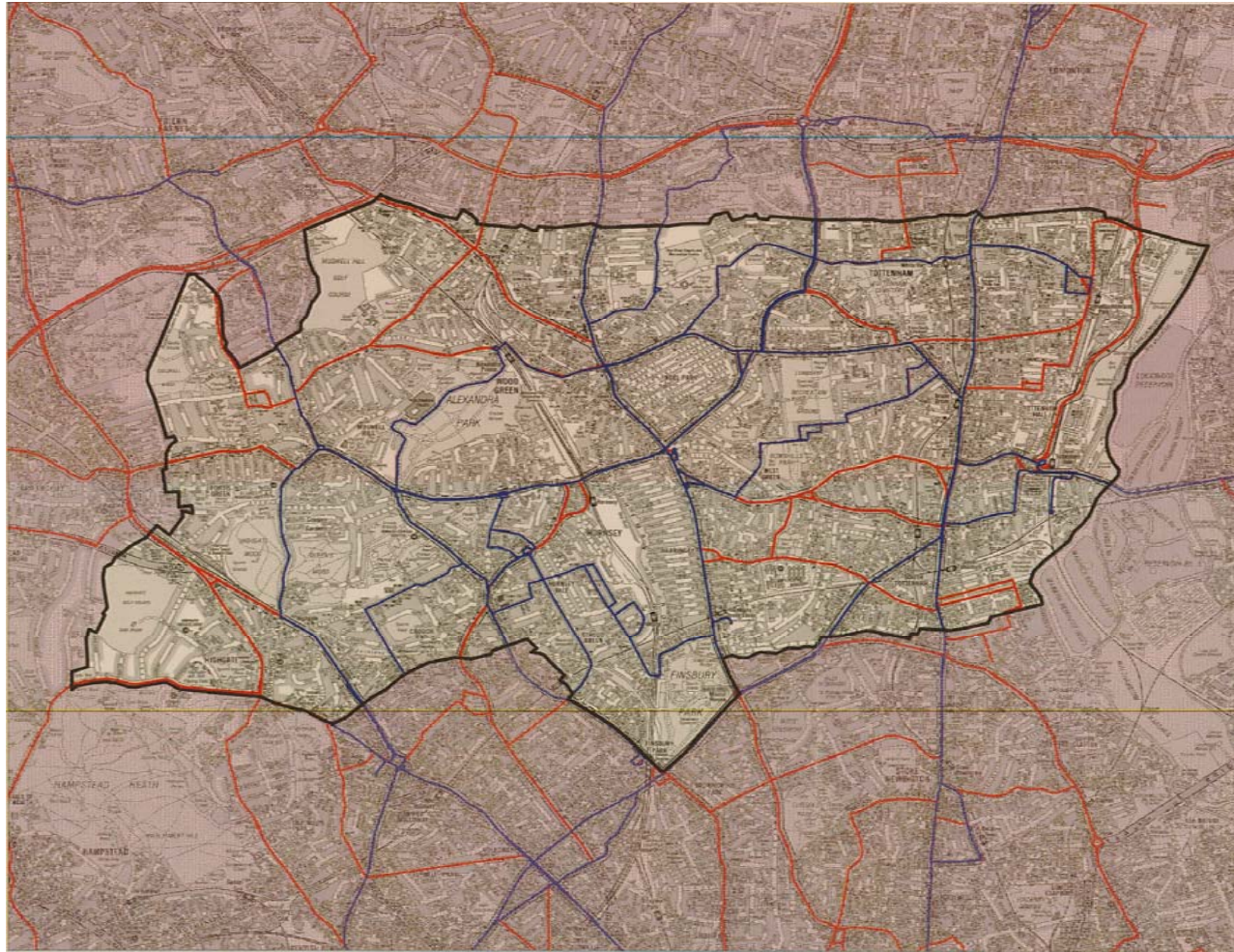


Figure 5.3.1 Roads to be included and excluded from Bus Priority work
[Key: Red lines included; Blue lines excluded]

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Table 5.3.2 Bus Survey Results

Location	Between	And	Dir.	Length (m)	Operation		Comments
					Day	Hours	
Archway Road (A1)	Winchester Road	App to St John's Way	S	640	All	24 Hours	TLRN: All bus lanes well signed with camera enforcement
Archway Road (A1)	Winchester Road	Southwood Avenue	NW	445	M-F	0700-1900	
Archway Road (A1)	Whittington Hospital	Winchester Road	NW	150	All	24 Hours	
Broad Lane	No, 8 - Tottenham Retail Park	Stamford Road (20m E of)	S	470	All	0700-1900	TLRN: Surface colouring required on east-west section
Broad Lane/The Hale	54 metres south of the kerbline of high cross road	To a point 30 metres further south	S	30	All	0700-1900	TLRN: Vehicles required to enter bus lane markings to turn left into Superstores
Colney Hatch Lane	106/108 Colney Hatch Lane	60/62 Colney Hatch Lane	S	172	M-F	0700-1000	All signing in place (allows for coaches)
Colney Hatch Lane (B550)	Barnard Hill (No. 46-48 Colney Hatch Lane)	Alexandra Park Road (No. 104 Colney Hatch Lane)	S	215	M-F	0700-1000	
Colney Hatch Lane (B550)	No. 6 Colney Hatch Lane	No.24-26 Colney Hatch Lane	S	130	M-F	0700-1000	
Crouch End Hill	Crescent Road (20m south of junction with)	4-6 Crouch End Hill	NE	230	All	0700-1000 1600-1900	Signing only Mon - Sat
Ferry Lane	Borough boundary	Bream Close (1-6 Angelica Court)	W	361	All	0700-1900	All signing in place
Great Cambridge Road (A10)	Borough Boundary with London of Enfield	5.0m north of Laburnam Avenue	S	190	M-F	0700-1000	All signing in place

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Great Cambridge Road (A10)	White Hart Lane	London Borough of Enfield boundary	N	320	M-F	1600-1900	
Great North Road/ Cherry Tree Hill	28/30 Cherry Tree Hill (7m NW of)	508/510 Archway Road	SE	226	M-S	0700-1900	Surface colour only applied on 50m approach to junction; times change from 0700-1900 to 0700-1830
Green Lanes	2/3 Grand Parade, Green Lanes	Williamson Road (36m N of)	S	552	M-F	0700-1000	Signs and road markings OK - Between Salisbury Road and Haringey Green Lanes station, bus lane surface colour is only applied on approach and exit to side roads. - Bus lane surface colour between West Green Road and St Ann's Road hard to distinguish from main c'way
Green Lanes A105	West Green Road (50m S of)	Alfoxton Avenue (27m N of)	S	107	M-F	0700-1000	
Green Lanes A105	St Margarets Avenue (60m S of) Mount View Court	St Anns Road (48m N of) 6/7 Salisbury Parade	S	420	M-F	0700-1000	
High Road, Tottenham	Borough of Enfield boundary	Brantwood Road (63m N of)	S	73	M-S	0700-1300	TLRN: All signing in place
High Road, Tottenham	Northumberland Park (33m S of)	White Hart Lane (27m N of)	S	23	All	0700-1900	
High Road, Tottenham	White Hart Lane	Park Lane	S	281	All	0700-1900	
High Road, Tottenham	Argyle Passage (50m S of)	Hampden Lane (25m S of)	S	139	All	24 hours	
High Road, Tottenham	Lansdowne Road (40 S of)	Reform Row	S	311	M-F	0700-1900	
High Road, Tottenham	Somerset Road (32m S of)	Monument Way	S	93	All	24 hours	
High Road, Tottenham	Monument Way (30m S of)	Broad Lane	S	491	All	24 Hours	
High Road, Tottenham	Broad Lane (22m S of)	212 High Road	S	84	All	24 Hours	

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High Road, Tottenham	200 High Road (25.5 m N. of)	86-88 High Road (5m S. of)	S	500	All	0700-1900	TLRN: Red Route parking 1000-1400 Draper Road to St Loy's Road
High Road , Tottenham	Seven Sisters Road	St Anns Road	S	566	All	0700-1900	
High Road, Tottenham	Church Road	White Hart Lane	N	272	M-F	0700-1900	
High Road, Tottenham	Lordship Lane (60m N of)	Church Road	N	320	M-F	1600-1900	
High Road, Tottenham	Monument Way (385/387 High Road)	Forster Road	N	264	All	0700-1900	
High Road, Tottenham	West Green Road (24m S of)	College of NE London (95m S of War Memorial)	N	185	All	0700-1900	
High Road, Tottenham	296 High Road (1m S. of)	312-314 High Road (6m N. of)	N	185	All	0700-1900	
High Road, Tottenham	St. Anne's (68m N of)	Seven Sister's Road (25m S of)	N	516	All	0700-1900	
High Road, Tottenham	Seven Sisters Road	259 High Road	N	76	All	24 Hours	
High Road, Tottenham	210/212 High Road	206 High Road	N	9	All	24 hours	
High Road, Wood Green	Turnpike Lane	The Broadway	NW	320	M-F	1600-1900	
					S	1000-1600	
High Road, Wood Green	Commerce Road	Boundary with London Borough of Enfield	N	670	M-F	1600-1900	All Signing in Place
High Road, Wood Green	Cranbrook Pk	Lordship Lane	S	100	M-F	0700-1000	All Signing in Place

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High Road, Wood Green	Canning Crescent	Ewart Grove	S	270	M-F	0700-1000	All Signing in Place
						1600-1900	
Lordship Lane	Granville Road (Pickering Court)	Boreham Road	E	320	M-S	0700-1000	All Signing in Place
						1600-1900	
Lordship Lane	Tintern Road (4m W of)	484/486 Lordship Lane	E	103	M-S	0700-1000	
						1600-1900	
Muswell Hill (A504)	No. 19-21 Muswell Hill	Western boundary of Green Man Tavern, Muswell Hill	NW	427	M-F	0700-1000	All sign All signing in place ing in place (allows for over 7.5t)
Muswell Hill Broadway (A504)	8/10 Colney Hatch Lane	404 Muswell Hill Broadway (70m S of Woodberry Crescent)	S	225	M-F	0700-1000	All signing in place (allows for coaches)
Muswell Hill Road	44 Muswell Hill Road	Wood Lane (Western block of Southwood Hall)	S	324	M-F	0700-1000	Missing "Start of Bus Lane" sign; recent surface colouring and road markings
Priory Road	95/97 Priory Road (Warner Road)	83 Priory Road (Park Avenue North)	E	48	M-S	0700-1000	All Signing in Place
Priory Road (A504)	Park Avenue North	1 Priory Road (Nighingale Lane)	E	335	M-F	0700-1000	
Priory Road (A504)	145/147 Priory Rd	161/163 Priory Road (Redston Road)	W	160	M-S	0700-1000	All Signing in Place
Seven Sisters Road (A503)	Suffield Road	Tottenham High Road	NE	60	M-F	1600-1900	All Signing in Place

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Seven Sisters Road (A503)	Greenfield Road (22m NE of)	Suffield Road (709 Seven Sisters)	NE	238	M-S	0700-1900	TLRN: Red Route parking allowed 1000-1400
Seven Sisters Road (A503)	Eade Road (349/351 Seven Sisters)	St. Anns Road (521 Seven Sisters)	NE	500	M-S	0700-1900	
Seven Sisters Road (A503)	Greenfield Road (635/637 Seven Sisters Road)	St. Anns Road (543 Seven Sisters)	SW	270	M-S	0700-1900	Signing Required between Manchester Road and Albert Road
Seven Sisters Road (A503)	519/521 Seven Sisters Road (80m SW of St Anns Road)	Vartry Road	SW	416	M-S	0700-1900	All Signing in Place
Turnpike Lane	Tottenham Lane (50m E of)	Goulding Court, Turnpike Lane)	E	61	M-S	0700-1900	
Turnpike Lane	Wightman Road (102/104 Turnpike Lane)	Waldegrave Road (26/24-22 Turnpike Lane)	E	372	M-F	1600-1900	
Turnpike Lane	Goulding Court (24m E of)	Hornsey Park Road	NE	45	All	24 hours	All Signing in Place

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5.3.9 Bus priority objectives have been set through TfL's LBPN, LBI1 and LBI2 programmes. These are:

- Reduced passenger waiting times
- Reduced bus journey times
- Improved bus service reliability
- Provide an environmentally sound alternative to car travel
- Increase passenger numbers

5.3.10 Achieving these objectives requires a complex study to determine the root causes of problems and identifying solutions that will provide improvements to all of the above objectives. The following is a general list of problem areas where significant improvements can be made either individually or in combination:

- Waiting and loading restrictions not matching peak bus flow times
- Waiting and loading enforcement
- Carriageway widths
- Traffic signal timings
- Pedestrian crossings

5.3.11 It is considered that for those roads where bus priority measures have been implemented further bus priority works are not necessary. Consequently the proposals in the LIP are aimed at addressing issues on those roads with bus services which have yet to be evaluated. Figure 5.3.1 shows those roads that are to be included or excluded from further bus priority work.

5.3.12 It is understood that the TfL Bus Priority Team [BPT] is currently producing a document entitled "*Framework for the Future*" which will set out the future direction for bus priority over the next 5 years. The BPT has produced a LIP target for bus journey time in accordance with the MTS Target 4 as described above. However, in the absence of the target in preparing the draft LIP, TfL BPT issued an advice note to achieve a consistent approach to the LIP across all Boroughs recognising the timeframe issues with developing detailed bus priority programmes for the LIP and the potential for overlap with the current and future bus priority schemes.

5.3.13 This advice states that individual bus priority programmes should be identified for those schemes over £100,000 in value or those schemes that are of strategic significance. For the remainder of the network, bus priority programmes should be looked at in two broad categories.

Category 1

Category 1 bus priority measures should concentrate on scheme improvements on the Busy Bus Route network. Differentiation should be made between the location of schemes to recognise the differing problems and associated cost. Category 1 should be broken down into the following sub categories:

- Category 1a - Central London (within the Congestion Charge zone)
- Category 1b - Inner London – (outside the CC zone but within the North and South Circular Roads)
- Category 1c - Outer London – (outside the North and South Circular Roads)

Category 2

Category 2 takes in the remainder of the network outside of the Busy Bus Route network within the borough, and should recognise the difference in intensity, and therefore cost, of works required within a town centre scheme as opposed to a non-town centre scheme. The following sub-categories have been adopted:

- Category 2a - remainder of the network within a town centre
- Category 2b - remainder of the network outside of town centres

5.3.14 Due to the limited time frames and data limitations, the bus priority for the draft LIP programme was not specific in identifying individual areas of “whole” routes for implementation of improvement schemes. Therefore identifying schemes for the draft LIP programme was undertaken on a general basis in accordance with TfL’s guidance note discussed above. This methodology has been applied to sections of the Borough road network. Within each category, individual sections of the network have been identified and grouped in terms of bus frequency. The frequency levels have been identified as follows:

- High - 25 and over buses/hour
- Medium - 15 – 24 buses/hour
- Low - under 15 buses/hour

5.3.15 Individual sections of the network were identified between major junctions or location features such as railway stations. This break up of the network provides a systematic approach to identifying sections of roadway to consider for bus priority measures that would be realistically achievable under one programme.

5.3.16 The list of possible improvement schemes has been detailed in the scheme identification list contained in Table 5.3.3.

5.3.17. Table 5.3.3 shows TfL Buses identified problem locations [Hotspots] and further information on identified congestion locations. This data was used to identify if there were any potential schemes over £100,000 or of strategic significance. Schemes meeting these criteria have been separated in the Scheme Identification list contained in Table 5.3.4 at the end of this section.

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.Table 5.3.3 Bus Problem Locations

	Location	Between	Highway Authority	Description of Delay Congestion	Possible Solution	Proposed Scheme	Engineering/ Enforcement	Severity	Priority	Routes	Route Status	Buses Per /hour
1	Green Lanes	From Turnpike Lane to Manor House Station	Borough	Illegal parking and heavy shopping traffic including weekends and evenings. Traffic turning right into Sainsbury's causes long tailbacks. Issues of enforcement.	Increase enforcement	S/B bus lanes along Green Lanes implemented under LBI 1 Route 29.	Engineering/ Enforcement	High	1	29; 141; 341; W5	LBI 1	23
2	Turnpike Lane LUL Station		Borough	Traffic congestion at junction exacerbated by illegal parking. Major problem.	Improved enforcement	Extend Eastbound Bus Lane to Zebra Crossing east of Waldegrave Road and Undertake parking /loading management scheme. Also to redesign the junction.	Enforcement	High	1	29; 41; 67; 121; 123; 141; 144; 184; 217; 221; 231; 329; 444	LBI 1 & 2	86
3	High Road	From Lordship Lane to Turnpike Lane	Borough	Narrow width of carriageway and illegal parking and loading activity causes heavy delays.	Make road buses only. CCTV and parking attendants.	Widening of Road. Negotiating with borough council.	Engineering/ Enforcement	High	1	29; 67; 121; 123; 141; 144; 184; 221; 230; 329; W4	LBI 1 & 2	72
4	Wood Green LUL Station		Borough	Traffic congestion at junction, parking in Lordship Lane and opposite bus garage. Kiss and Ride problem during peak hours.	Look at junction layout and Additional Parking attendants.	Additional/extended bus lanes and junction modifications; LBI Route 29.	Engineering	High	1	29; 67; 121; 123; 141; 144; 184; 221; 230; 243; 329; W3; W4	LBI 1 & 2	88.75
5	Archway Road	Cholmeley Park and Muswell Hill Road	TLRN	Unloading outside permitted hours during evening peak.	Traffic Wardens		Enforcement	Med	2	43;134;263	LBI 1	25

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Table 5.3.3 Bus Problem Locations

	Location	Between	Highway Authority	Description of Delay Congestion	Possible Solution	Proposed Scheme	Engineering/ Enforcement	Severity	Priority	Routes	Route Status	Buses Per /hour
6	Broad Lane, Tottenham	junc with Tottenham High Road	TLRN	Volume of traffic, traffic tail blocking exit from Broad lane		Bus lane for whole length of road implemented experimentally. Undergoing review. Traffic Signal Review is dropped.	Engineering	Med	2	41; 123; 230; W4	LBI 2	28
7	Bruce Grove	junc with Tottenham High Road	TLRN	car parking		Proposed extended and new bus lanes, (Engineering), LBI:149.	Enforcement	Med	2	76; 123; 149; 341; 243; 259; 279; W4	LBI 1 & 2	52.5
8	Colney Hatch Lane		Borough	Parking and loading/unloading. Potential of moving violations on southbound bus lane.	CCTV bus lane enforcement and additional PA's at the end of the lane. Consider restrictions at the end of the lane.		Enforcement	Med	2	43; 134; 234;	LBI 1	25
9	Stroud Green Road	Entire length	Borough	Shoppers, Deliveries, minicabs, snooker hall. Is worst during the evening			Enforcement	Med	2	210; W3; W7	None	30.25
10	Turnpike Lane	Entire length	Borough	Shoppers and Deliveries	CCTV cameras and additional parking attendants.	Bus lanes to be implemented in both Easterly and Westerly directions.	Enforcement	Med	2	41; 144	LBI 1	20
11	High Road Tottenham	From Seven Sisters Road to Gladesmore Road, o/s South Tottenham	TLRN	Parking outside station and outside car auctioneer	Enforcement		Enforcement	High	2	73; 76; 149; 243;	LBI 1	41

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Table 5.3.3 Bus Problem Locations												
	Location	Between	Highway Authority	Description of Delay Congestion	Possible Solution	Proposed Scheme	Engineering/ Enforcement	Severity	Priority	Routes	Route Status	Buses Per /hour
12	High Road Tottenham	From Lordship Lane to Brantwood Road	Borough	Significant parking problems associated with shops, including bus stops - all days and all times. Parking & loading in northbound bus lane. Sainsburys superstore has a signalised junction closely followed by the two signalised junctions at Northumberland Park and White Hart Lane	Additional parking attendants. Bus lane CCTV. Review signal phases.		Enforcement	Med	2	149;279;259	LBI 1	21
13	High Road, Wood Green	From Lordship Lane to Bounds Green Road	Borough	Parking throughout the day. Unloading of deliveries occurs throughout the day. This reduces the High Road to one lane. Traffic tails back across the Bounds Green Road junction.	Enforcement		Enforcement	Med	2	29;14;221;232 ;329;W4	LBI 1	37
14	High Road Tottenham	From Bruce Grove to	TLRN	Parking problems associated with shops - all days	Traffic Wardens		Enforcement	Med	2	76;123;149;24 3;259;279;318	LBI 1	51.5

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Table 5.3.3 Bus Problem Locations

	Location	Between	Highway Authority	Description of Delay Congestion	Possible Solution	Proposed Scheme	Engineering/ Enforcement	Severity	Priority	Routes	Route Status	Buses Per /hour
15	High Road, Tottenham	Lansdowne Road to Bruce Grove	Borough	Parking between Dowsett Road and Forster Road is a major problem. Significant problems with traffic light phasing at Dowsett Road.			Enforcement	Med	2	76;149;259;279;318;341	LBI 1	33
16	Lordship Lane	From Redvers Road to Westbury Avenue	Borough	Shoppers and deliveries, especially electrical goods. minicab drivers.	e/b bus lane on Lordship Lane (approach to Boreham) proposed. Also linking of signals to provide better traffic flow. Additional parking attendants. CCTV for bus lane.	Bus lane on Lordship Lane to the Roundway, implemented under LBI 1 Route 144.	Engineering/ Enforcement	Med	2	123; 144; 217; 231; 243; 444	LBI 1	33.5
17	West Green Road	Phillip Lane	Borough	Illegal parking			Enforcement	Med	2	41; 67; 230	None	22
18	Westbury Avenue	Between Roundway and Turnpike Lane	Borough	Car parking	restrictions required		Enforcement	Med	2	123; 217; 231; 444	LBI 2	18
19	Broad Lane, Tottenham	Between High Road and Ferry Lane	TLRN	Stopping violations on red route outside shops. Parking on bus	Traffic Wardens		Enforcement	Low	3	41;123;230;W4	LBI 2	28

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Table 5.3.3 Bus Problem Locations

	Location	Between	Highway Authority	Description of Delay Congestion	Possible Solution	Proposed Scheme	Engineering/ Enforcement	Severity	Priority	Routes	Route Status	Buses Per /hour
20	Broadway, Crouch End		Borough	Shoppers and deliveries			Enforcement	Low	3	41; 91; W7;W5	None	38
21	Ferry Lane (Bus lane 538)		Borough		Long term CCTV reviewable for bus lane. Subject to development in area.		Enforcement	Low	3	123;230		11
22	Phillip Lane	Entire length	Borough	Residential parking and sports centre			Enforcement	Low	3	341; 230	None	10
23	High Street, Hornsey	Middle Lane to Hillfield Avenue	Borough	Shoppers and deliveries. Small business working from kerb side and general parking and loading offences. Parking on bus stops.	Additional parking attendants.		Enforcement	Low	3	144	LBI 2	8
24	Muswell Hill Broadway		Borough	Parking and loading/unloading	No parking restrictions. Loading/unloading off peak		Enforcement	Low	3	144; 299; W7	LBI 1	29
25	Muswell Hill Road		Borough	Parking and loading/unloading.	Possible parking one side only. Additional enforcement by parking attendants on scooters		Enforcement	Low	3	43; 134	LBP + LBI	19

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Table 5.3.3 Bus Problem Locations

	Location	Between	Highway Authority	Description of Delay Congestion	Possible Solution	Proposed Scheme	Engineering/ Enforcement	Severity	Priority	Routes	Route Status	Buses Per /hour
26	Muswell Hill	Muswell Hill Broadway to Rookfield Avenue	Borough	Abuse of bus lane. (up steep hill)	CCTV and consider adding HGV to bus lane restrictions to enable vehicles to ascend hill.		Enforcement	Low	3	144;W7	LBI 1	23
27	Park Road, Crouch End		Borough	Shoppers and deliveries			Enforcement	Low	3	W7	None	15
28	St Ann's Road/ Hermitage Road		Borough	Illegal parking causes block back to Turnpike Lane in morning peak and Brownswood Road in evening peak. Rat running traffic causes delays at mini roundabout			Enforcement	Low	3	67	None	5
29	Tottenham Lane		Borough	Parking and loading and unloading	Implement peak restrictions		Enforcement	Low	3	41	None	12
30	White Hart Lane	by the Rail Station	Borough	Parking by minicab offices and local shops			Enforcement	Low	3	W3	None	9.25

Scheme Priority

5.3.18 To assign a priority to each of the schemes, an assessment score was calculated for each. The assessment recognises that priority should be given to those schemes containing high patronage and high frequency routes. In addition, if a route contains an existing problem location, this should also add weight to the priority.

5.3.19 The assessment assigns a weighting of 3 for high patronage routes, 2 for medium patronage routes and 1 for low patronage routes. The patronage weightings were then multiplied by the route frequency. These scores are then multiplied by 2 for those routes containing an existing Hotspot or 1 for those with no Hotspots. The formula below describes the scoring system:

$$\text{Score} = \text{Patronage weighting} \times \text{Frequency} \times \text{Hotspot Weighting}$$

5.3.20 This method of assessment provides a weighted score for each scheme based on patronage and frequency giving due consideration those routes where existing problems have been identified.

5.3.21 Table 5.3.4 provides a list of schemes grouped by route frequency and assessed in accordance with the above formula. The schemes have then been ranked based on the assessment score to provide a priority for implementation of the scheme.

.Table 5.3.4 Bus Priority Scheme Identification

Item	Road Name	Hotspots		Problem Identified	Bus Routes	Max Service Frequency		Patronage Level	Rationale for Selection	Scheme Proposal	Assessment Score	Rank
		Contains a known Hotspot	Hotspot Ref.			Level	Buses/hour					
	Routes Covered in the 2005/2006 BSP											
	Route W3 (Whole Route)			Bus journey delays		Medium	12	Medium				
	Route W4 (Whole Route)			Bus journey delays		Low	5	Low				
	Category 1 - Busy Bus Routes											
3-1	Great North Road/Archway Road (between the Borough boundary and Muswell Hill Road)	Yes	5	Bus journey delays	43, 134, 263, N20, N43	High	33	High	High frequency route on a Busy Bus Route	Bus priority improvements	198	1
	Category 2 - Other Routes											
	High Frequency Routes											
3-2	Crouch End Hill (between the Borough boundary and The Broadway Crouch Hill)	No	N/A	Bus journey delays	41, 91, N41, N91	High	25	High	High frequency route with high patronage	Bus priority improvements	75	3
	Medium Frequency Routes											

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Item	Road Name	Hotspots		Problem Identified	Bus Routes	Max Service Frequency		Patronage Level	Rationale for Selection	Scheme Proposal	Assessment Score	Rank
		Contains a known Hotspot	Hotspot Ref.			Level	Buses/hour					
3-3	Hampstead Lane (between the Borough boundary and Hornsey Lane)	No	N/A	Bus journey delays	143, 210, 271	Medium	23	Medium	Medium frequency route with medium patronage	Bus priority improvements	46	7
3-4	Alexandra Park Road/Albert Road/Durnsford Road (between Coney Hatch Lane and Bounds Green Road)	No	N/A	Bus journey delays	102, 184, 299	Medium	19	High	Medium frequency route with high patronage	Bus priority improvements	57	4
3-5	Station Road (between Alexandra Palace Station and Wood Green High Road)	No	N/A	Bus journey delays	184, W3	Medium	19	High	Medium frequency route with high patronage	Bus priority improvements	57	4
3-6	Fortis Green Road (between Borough boundary and Muswell Hill Road)	No	N/A	Bus journey delays	102, 234, 603	Medium	16	High	Medium frequency route with high patronage	Bus priority improvements	48	6
3-7	Tottenham Lane/Church Lane (incl Hornsey Station approach) (between Ferme Park Road and Turnpike Lane)	Yes	29	Bus journey delays	41, N41, N91	Medium	15	High	Medium frequency route with high patronage	Bus priority improvements	90	1

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Item	Road Name	Hotspots		Problem Identified	Bus Routes	Max Service Frequency		Patronage Level	Rationale for Selection	Scheme Proposal	Assessment Score	Rank
		Contains a known Hotspot	Hotspot Ref.			Level	Buses/hour					
3-8	West Green Road (between Phillip Lane and Tottenham High Road)	Yes	17	Bus journey delays	41, 67, 230, W4, N41	Medium	15	High	Medium frequency route with high patronage	Bus priority improvements	90	1
3-9	Lordship Lane/Lansdowne Road/Shelbourne Road (from Bruce Grove to Northumberland Park Station)	No	N/A	Bus journey delays	318, 341, 476, N76	Medium	16	Medium	Medium frequency route with medium patronage	Bus priority improvements	32	10
Low Frequency Routes												
3-10	North Hill Road (between Archway Road and Hampstead Lane)	No	N/A	Bus journey delays	143, 603,	Low	7	Low	Busy Bus Route	Bus priority improvements	7	2
3-11	Middle Lane/Rokesly Avenue/Ferne Park Road Stapleton Hall Rd (between Hornsey High Street and Stroud Green Road)	No	N/A	Bus journey delays	W3	Low	12	High	Low frequency route with high patronage	Bus priority improvements	36	9
3-12	Alexandra Palace Way (between Priory Road and Alexandra Palace Railway Station)	No	N/A	Bus journey delays	W3	Low	12	Medium	Low frequency route with medium patronage	Bus priority improvements	24	12

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Item	Road Name	Hotspots		Problem Identified	Bus Routes	Max Service Frequency		Patronage Level	Rationale for Selection	Scheme Proposal	Assessment Score	Rank
		Contains a known Hotspot	Hotspot Ref.			Level	Buses/hour					
3-13	Black Boy Lane (between West Green Road and St Ann's Road)	No	N/A	Bus journey delays	67, 341	Low	12	Medium	Low frequency route with medium patronage	Bus priority improvements	24	12
3-14	Phillip Lane (between West Green Road and Tottenham High Road)	Yes	22	Bus journey delays	230, 341	Low	11	Medium	Low frequency route with medium patronage	Bus priority improvements	44	8
3-15	Bounds Green Road (between A406 and Wood Green High Road)	No	N/A	Bus journey delays	221, N91	Low	10	High	Low frequency route with high patronage	Bus priority improvements	30	11
3-16	Alexandra Park Road/Palace Gates Road (between Albert Road and Alexandra Palace Railway Station)	No	N/A	Bus journey delays	184	Low	7	Medium	Low frequency route with medium patronage	Bus priority improvements	14	15
3-17	Watermead Way (between Hale Road and the Borough boundary)	No	N/A	Bus journey delays	192	Low	7	Low	Low frequency route with low patronage	Bus priority improvements	7	16

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Item	Road Name	Hotspots	Hotspot Ref.	Problem Identified	Bus Routes	Max Service Frequency		Patronage Level	Rationale for Selection	Scheme Proposal	Assessment Score	Rank
						Level	Buses / hour					
3-18	St Ann's Road (between Green Lanes and Tottenham High Road)	Yes	28	Bus journey delays	67, 341	Low	6	Medium	Low frequency route with medium patronage	Bus priority improvements	24	12
3-19	Coppetts Road/Pages Lane (between Trott Road and Fortis Green Road)	No	N/A	Bus journey delays	234	Low	6	Low	Low frequency route with low patronage	Bus priority improvements	6	18
3-20	Willoughby Road/Leeside Lane (between Northumberland Park and Watermead Way)	No	N/A	Bus journey delays	341	Low	6	Low	Low frequency route with low patronage	Bus priority improvements	6	18
3-21	Bull Lane/Queen Street (between the Borough boundary and White Hart Lane)	No	N/A	Bus journey delays	318	Low	2	Low	Low frequency route with low patronage	Bus priority improvements	2	20
3-22	The Roundway (east leg) (between Great Cambridge Road and Lordship Lane)	No	N/A	Bus journey delays	318	Low	2	Low	Low frequency route with low patronage	Bus priority improvements	2	20

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Item	Road Name	Hotspots		Problem Identified	Bus Routes	Max Service Frequency	Patronage Level	Rationale for Selection	Scheme Proposal	Assessment Score	Rank	
		Contains a known Hotspot	Hotspot Ref.			Level	Buses / hour					
3-23	Shelbourne Road/Rosebery Avenue/Havelock Road/Dowsett Road (between Lansdowne Road and Tottenham High Road)	No	N/A	Bus journey delays	318	Low	2	Low	Low frequency route with low patronage	Bus priority improvements	2	20
3-24	Gladesmore Road/Grovelands Road/Wargrave Avenue	No	N/A	Bus journey delays	318	Low	2	Low	Low frequency route with low patronage	Bus priority improvements	2	20
Note:	Sections located on the TLRN											

5.3.22 From the schemes identified in Table 5.3.4, more detailed work will be needed to develop effective schemes. TfL's advice note provides indicative cost estimates based on bus priority works implemented in the past based on Flagship schemes. For the purposes of estimate LIP schemes the following rates have been suggested. As Haringey is considered an inner London borough categories 1b, 2a and 2b are relevant.

- Category 1a - Central London = £200,000 per km
- Category 1b – Inner London = £400,000 per km
- Category 1c – Outer London = £100,000 per km
- Category 2a – Town Centre schemes = £400,000 per km
- Category 2b – Remainder of the network = £100,000 per km

5.3.23 Each scheme has been costed based on the above rates and the budgets allocated to a financial programme over the next 4 years in accordance with the LIP guidance. A funding level of approximately £600k - £800k has been allowed for each financial year.

5.3.24 Table 5.3.5 below provides a list of indicative proposed schemes for the years 2007-11 with broad cost estimates and implementation programme.

Table 5.3.5 Proposed Bus Priority Implementation Programme 2007-2011

Scheme Ref.	Location	Scheme Category	Length of Scheme (km)	Total Cost for Scheme (£K)	Scheme Priority	Yearly Breakdown of Costs (£k)			
						2007/08	2008/09	2009/10	2010/11
<i>Busy Bus Routes</i>									
3-1	Great North Road/Archway Road (between the Borough boundary and Muswell Hill Road)	1b	1.40	560		TLRN Network			
<i>Other Routes</i>									
3-7	Tottenham Lane/Church Road (incl Hornsey Station approach) (between Ferme Park Road and Turnpike Lane)	2b	1.30	130	1	130			
3-8	West Green Road (between Phillip Lane and Tottenham High Road)	2b	1.70	170	2	170			
3-2	Crouch End Hill (between the Borough boundary and The Broadway Crouch Hill)	2b	0.50	50	3	50			
3-4	Alexandra Park Road/Albert Road/Durnsford Road (between Colney Hatch Lane and Bounds Green Road)	2b	2.20	220	4	220			
3-6	Fortis Green Road (between Borough boundary and Muswell Hill Road)	2b	0.90	90	6	90			
3-3	Hampstead Lane (between the Borough boundary and Hornsey Lane)	2b	2.15	215	7		215		
3-14	Phillip Lane (between West Green Road and Tottenham High Road)	2b	1.35	135	8		135		
3-11	Middle Lane/Rokesly Avenue/Ferme Park Road Stapleton Hall Rd (between Hornsey High Street and Stroud Green Road)	2b	2.25	225	9		225		
3-15	Bounds Green Road (between A406 and Wood Green High Road)	2b	2.20	220	11			220	

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Scheme Ref.	Location	Scheme Category	Length of Scheme (km)	Total Cost for Scheme (£K)	Scheme Priority	Yearly Breakdown of Costs (£k)			
						2007/08	2008/09	2009/10	2010/11
3-12	Alexandra Palace Way (between Priory Road and Alexandra Palace Railway Station)	2b	1.90	190	12			190	
3-13	Black Boy Lane (between West Green Road and St Ann's Road)	2b	0.55	55	13			55	
3-18	St Ann's Road (between Green Lanes and Tottenham High Road)	2b	2.00	200	14			200	
3-16	Alexandra Park Road/Palace Gates Road (between Albert Road and Alexandra Palace Railway Station)	2b	1.05	105	15			105	
3-10	North Hill Road (between Archway Road and Hampstead Lane)	2b	1.45	145	16				145
3-17	Watermead Way (between Hale Road and the Borough boundary)	2b	2.35	235	17				235
3-19	Coppetts Road/Pages Lane (between Trott Road and Fortis Green Road)	2b	1.40	140	18				140
3-20	Willoughby Road/Leeside Lane (between Northumberland Park and Watermead Way)	2b	0.85	85	19				85
3-21	Bull Lane/Queen Street (between the Borough boundary and White Hart Lane)	2b	0.45	45	20				45
3-23	Shelbourne Road/Rosebery Avenue/Havelock Road/Dowsett Road (between Lansdowne Road and Tottenham High Road)	2b	1.55	155	21				
3-24	Gladesmore Road/Grovelands Road/Wargrave Avenue	2b	1.40	140	22				
3-22	The Roundway (east leg) (between Great Cambridge Road and Lordship Lane)	2b	0.90	90		TLRN Network			
			Yearly Totals (£K)			680	575	770	650

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5.3.25 A detailed programme has been developed for 2007/8. This is fully described in the relevant Form 1s. Table 5.3.6 shows in outline the programme for 2007/8.

Table 5.3.6 Bus Priority Programme for 2007/8

Scheme Name	Location	Costs [£k]		Total [£k]
		2006/7	2007/8	
The Roundway	Risley Avenue to Lordship Lane	30	30	60
Turnpike Lane	Between Green Lanes and Wightman Road	45	35	80
West Green Road	Jn with Green Lanes	85	160	245
Wood Green	Station Road	0	150	150
Colney Hatch Lane	Greenham Road area	0	35	35
The Roundway	The Roundway west	0	35	35
Crouch End Broadway	Broadway to Church Lane	0	150	150
Highgate	Highgate High Street	0	40	40
Total		160	635	795

Bus Lane and Waiting and Loading Enforcement

5.3.26 The Council is committed to effective enforcement of bus lanes and waiting and loading restrictions. The Council has signed a Service Level Agreement [SLA] with TfL to provide enforcement as part of the LBI Framework Document. The agreement commenced on 1 February 2005 and replaced earlier agreements dated March 2002 and November 2003. The SLA will continue for an indefinite period and is aimed at improving compliance with bus lane restrictions, waiting and loading restrictions and stopping restrictions. The SLA covers LBI Key Route Corridors. For Haringey this relates to bus routes 149, 144, 29, 134, 279, 329, 123 and 349.

5.3.27 The Council carries out regular reviews of enforcement to ensure appropriate levels of resource to maximise enforcement. We have

undertaken a programme of bringing signage up to DfT standards as part of the SLA.

5.3.28 We have introduced CCTV camera at a number of locations in the Borough: Tottenham High Road, Wood Green High Road, Muswell Hill Broadway, Lordship Lane, Turnpike Lane and Green Lanes. The agreement also covers provision of control room equipment to enable effective monitoring and enforcement.

5.3.29 The Council has an ongoing maintenance programme for all of infrastructure lines and signs including bus lanes. TfL also surveys bus lanes every six months to ensure compliance with the required standard and feedback their findings to the Council. The Council undertakes action as appropriate.

Bus Stop Accessibility and Bus Stop Clearways

5.3.30 We are undertaking a programme for improving access to bus stops and providing clearways. Details are provided in the relevant Form 1s.

Mitigation Measures

5.3.31 We support measures to maintain or enhance bus service reliability. As described above, we have programmes of bus priority schemes. In addition we are committed to reviewing all our traffic management proposals, safety schemes and other programmes to evaluate the impact on bus service provision and reliability. We carry out consultation on traffic schemes with TfL Buses to mitigate any adverse impacts on bus services and respond to comments as appropriate. We also use design software to ensure standards meet the requirements of safe and efficient bus operation.

5.3.32 We take into account guidance issued by TfL. Specifically we take note of the Technical Note BP2/05 for traffic calming measures for bus routes; advice regarding bus stop layouts for articulated buses [such as for example for articulated buses on routes 29 and 149] and design guidance for accessible bus stops in our bus stop accessibility programme.

5.3.33 In relation to the environmental impact of bus priority measures, this will be assessed as part of the development of particular schemes. Bus priority measures provide environmental benefits if there is less use of the private car, particularly for commuting as well as emissions and noise are lower per passenger than by car occupiers. If trip lengths are increased as a result of better bus priority then there may be adverse environmental impacts. In relation to the latter there is no evidence that journey lengths are increasing. Reliability data prepared by TfL show that overall bus

services have become more reliable in recent years which would at least be partly explained by increased bus priority measures. In terms of emissions per passenger kilometre it is difficult to estimate the environmental efficiency of bus usage rather than use of the car at the local level. However, in the London context, promoting bus use is a more efficient use of road space than measures to facilitate the use of the car.

Gritting of Roads on Bus Routes

5.3.34 The gritting of roads in the Borough is split into three priorities. The TLRN is excluded from the programme as TfL is the highway authority for these roads. The approach for our own roads is set out below:

Priority 1

These are heavily used roads, main roads, roads that have bus routes and roads that have bus routes and roads where risk from snow fall is higher due to steeper gradients.

In the event of snowfall settling the Council will despatch gritting vehicles to spread rock salt on these roads first. Although gritting is usually commenced once snow has started to settle, the Council occasionally grits before snow falls if conditions and weather forecasts suggest this is a wise course of action.

Gritting too far in advance of snow fall can be a waste to time and resources as the grit may be thrown to the side of the road by traffic and by the time snow falls there may be none left on the carriageway to be of any use. It is not unusual to grit Priority 1 roads more than once during a sustained cold period when snow continues to fall.

Priority 2

Once the Council is satisfied that priority 1 roads are sufficiently well treated and traffic is moving well, priority 2 roads are then gritted. Again it is not unusual to grit priority 2 roads more than once during a sustained cold period when snow continues to fall.

Priority 3

Any road that is not listed in priority 1 or 2 is deemed to be priority 3. Because weather conditions are rarely very bad for a very long period of time it is unusual to carry out gritting operations beyond priority 2. However, if the need arises resources will be deployed to do so. Officers will assess local conditions through out the borough and direct resources to deal with priority 3 locations where gritting is needed the most.