

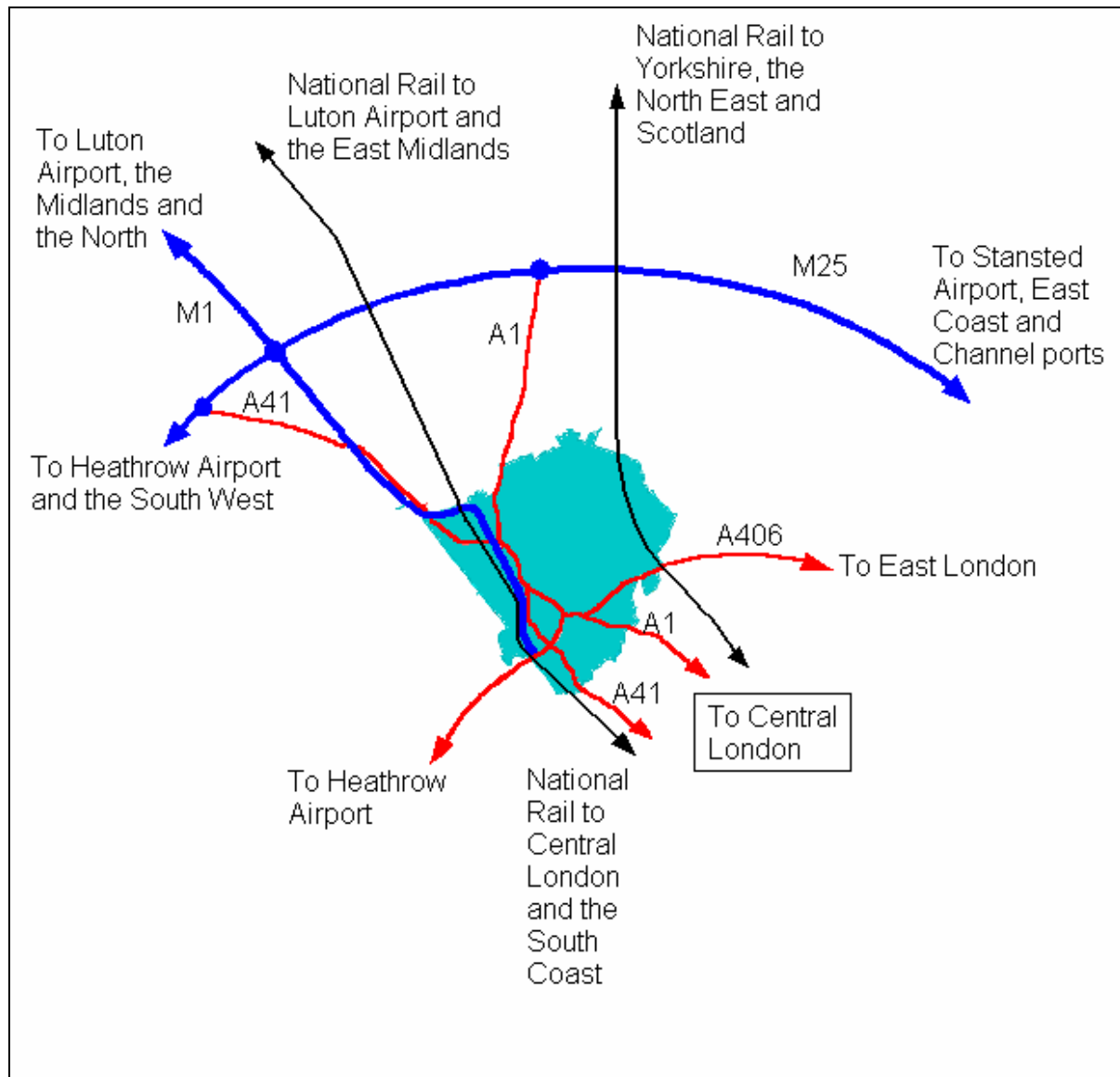
## 2. Local Transport Context

### EXISTING TRANSPORT NETWORK

#### National and International context

- 2.1 The M1 corridor along the west side of Barnet forms a main route from North London to the rest of the country, (refer to Figure 2.1). Freight sidings are also available at Cricklewood in the south west of the borough permitting rail freight to and from the East Midlands, Central London and the South Coast.
- 2.2 Future development of the Thameslink and the Channel Tunnel Rail Link will enhance rail transport to the south coast and the continent.

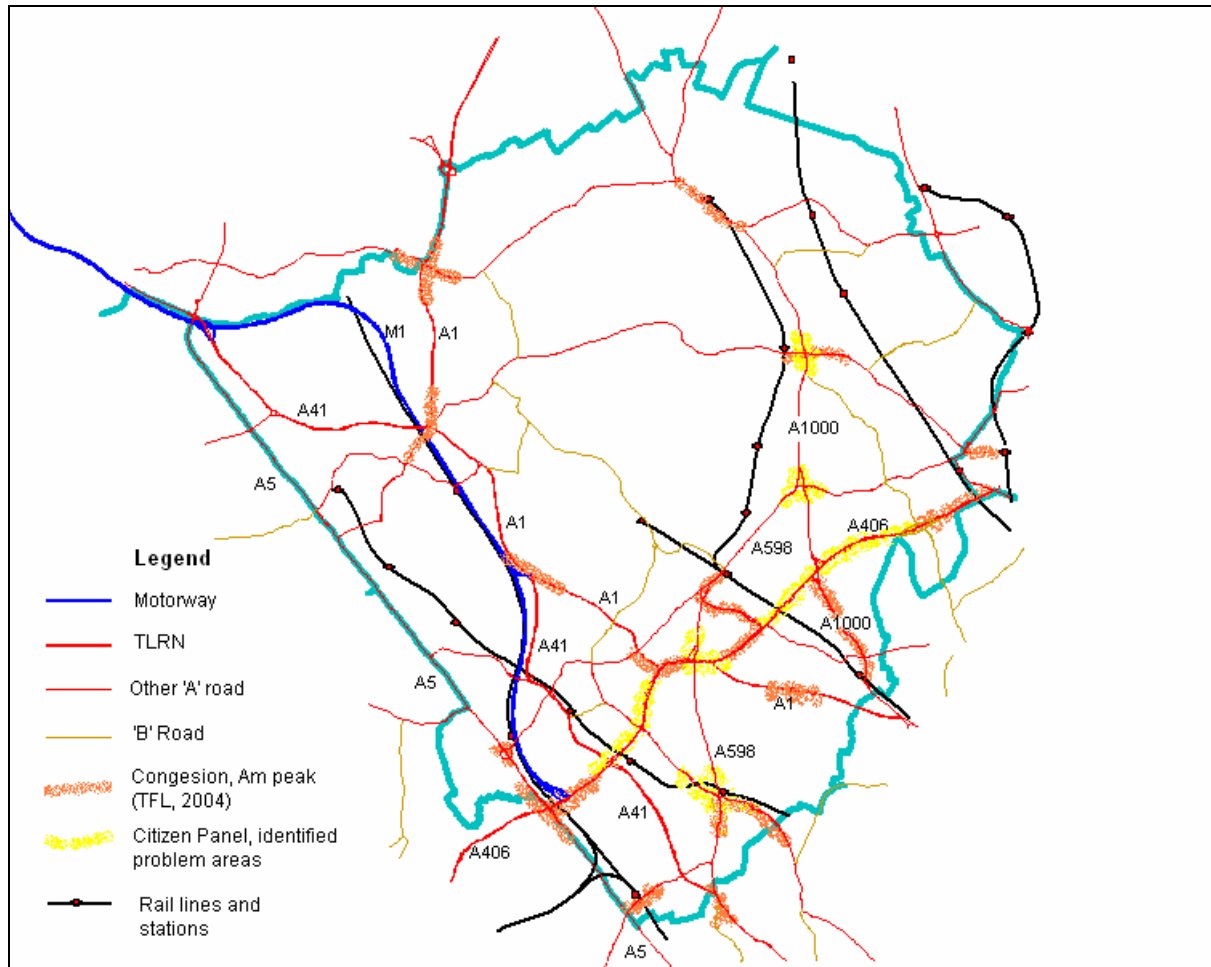
**Figure 2.1 - National and international transport links**



## ROAD NETWORK

- 2.3 As Figure 2.2 shows the road network in Barnet is dominated by the corridor of radial routes along the west side of the borough that incorporates the M1, A1, A41 and A5, and the orbital A406 North Circular Road.
- 2.4 The A1000 and A598 link many of the borough's town centres, but also cater for radial movements through the borough.

**Figure 2.2 - Road network and congestion**



TFL (2004), London Travel report, roads where percentage of time spent stationary was greater than 50%

- 2.5 The A406 suffers significant congestion, in particular between its junctions with the A5 and A1 and at the eastern side of the borough adjacent to Enfield. This congestion has an adverse knock on effect on many borough roads.

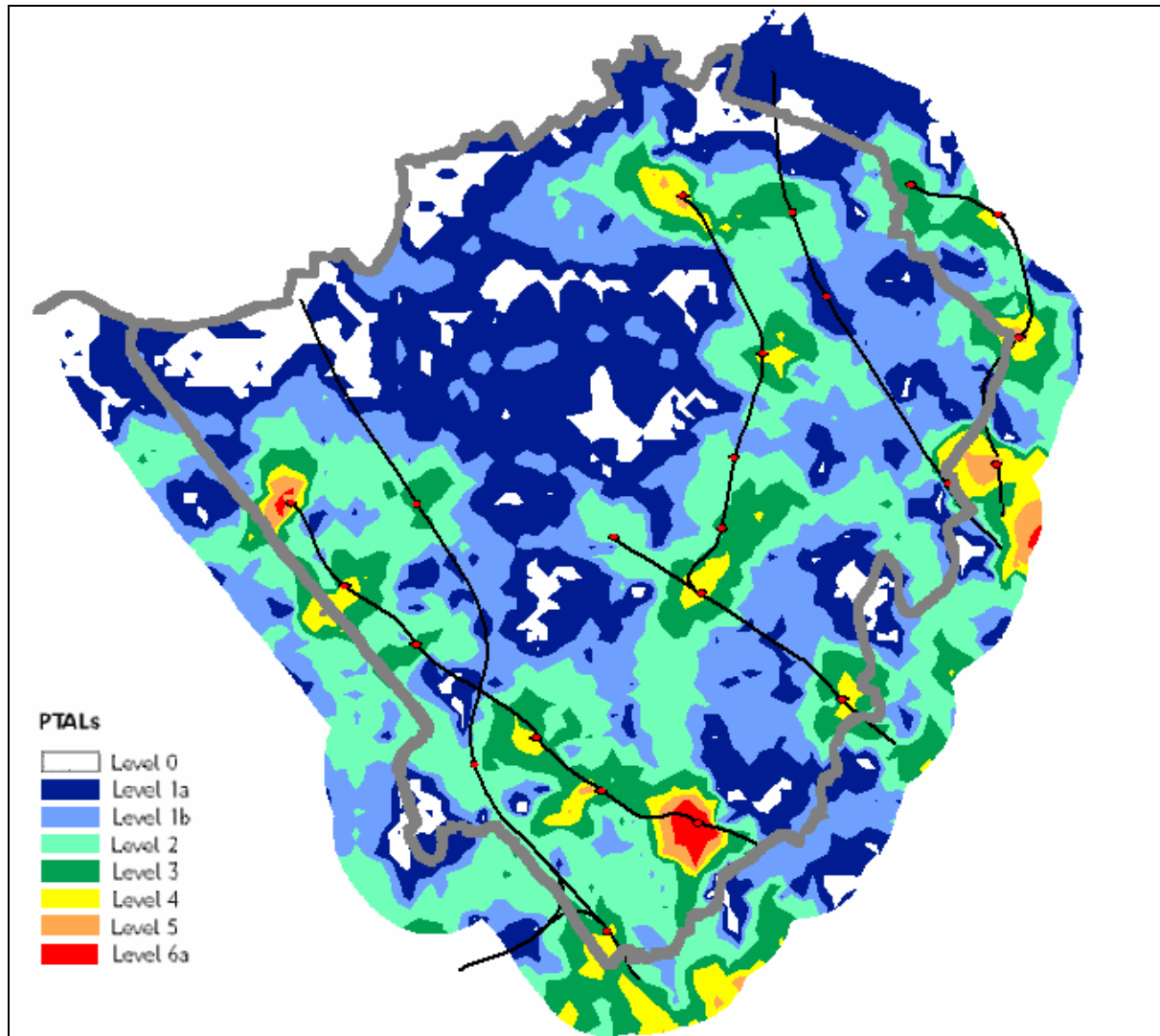
## PUBLIC TRANSPORT

### Accessibility

- 2.6 In outer London, greater distances, more dispersed settlement patterns and less widespread public transport provision, coupled with a tendency for travel

into London to be less of a dominant factor make car use more important, and car ownership more common. In particular the green belt wedge in the middle of the borough presents a significant barrier to travel across the borough by public transport, but the east of the borough also suffers from limited public transport accessibility. Figure 2.3 highlights public transport accessibility in Barnet. There is good public transport accessibility exists for services that cater for radial movements towards Central London.

**Figure 2.3 - Public Transport Accessibility, February 2003**



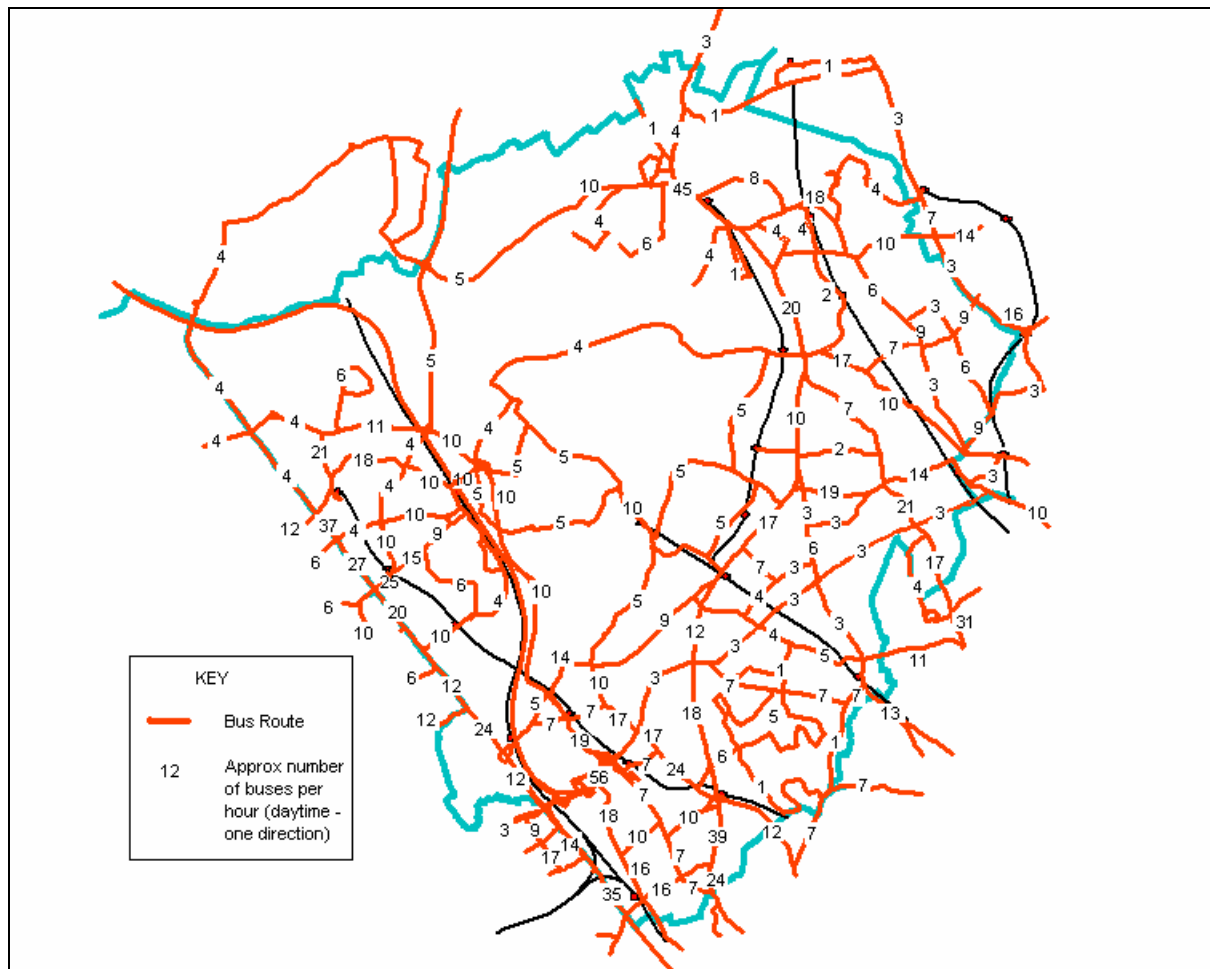
Source: Transport for London (2004)

### **Bus Network**

- 2.7 Barnet resident make about 11% of all trips by bus, and bus is the only real public transport option for east-west trips through the borough. However routes catering for such movements and for trips north into Hertfordshire are fewer and less frequent than those for movements into London and often a number of changes have to be made to complete a journey. Figure 2.4 shows the approximate number of buses per hour travelling in one direction during the daytime.

- 2.8 The network general caters well for those who are reliant on the bus for their accessibility needs, despite some areas of lower accessibility, especially compared to many areas outside London.

**Figure 2.4 - Bus network in Barnet**



## Underground and rail networks

### Underground Network

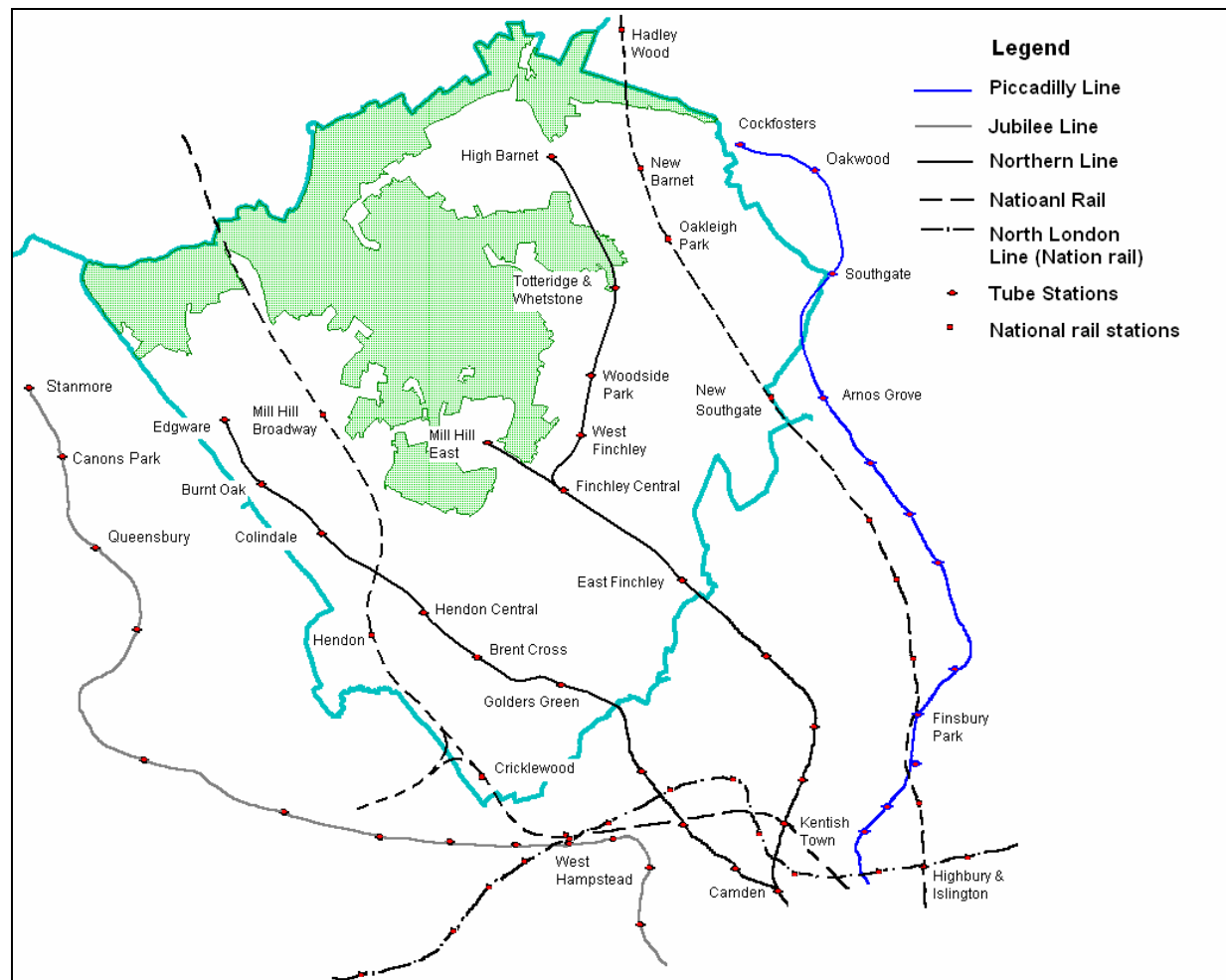
- 2.9 Barnet is served by two branches of the Northern line (refer to Figure 2.5). The Piccadilly line also runs just to the east of the borough, providing a service to residents in that area. The Jubilee line runs close to the north-west of the borough, providing an alternative to the Northern line for some residents.

### Rail Network

- 2.10 Currently, trains are relatively lightly used in Barnet, accounting for only 1.4% of all trips by residents, although around 5% of trips to work are made by train.

- 2.11 There is little or no morning peak capacity on Thameslink or WAGN trains down the west and east of the borough, with trains mostly full on reaching stations such as Cricklewood, Mill Hill Broadway and Oakleigh Park.

**Figure 2.5 - Underground and rail network**

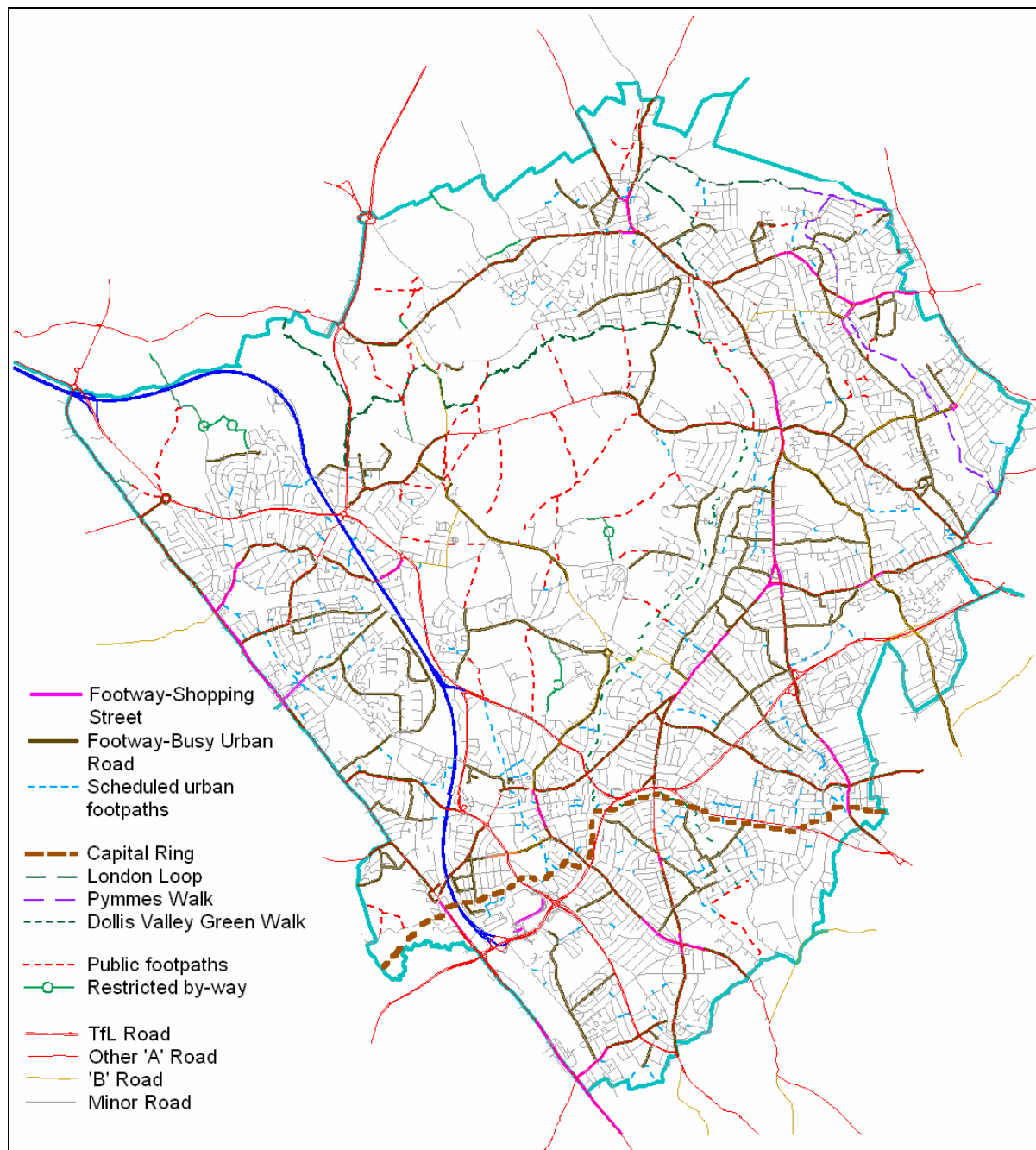


## WALKING

- 2.12 Walking forms a part of virtually every journey, and there is a wide range of walking routes within Barnet. These range from local streets that provide access to bus stops and local shops, to rural footpaths that provide valuable leisure opportunities.
- 2.13 Barnet's main priorities are those walking routes that form, or have the potential to form a significant part of the regular journeys of residents and others. This leads to an approximate hierarchy of routes based on their use (refer to Figure 2.6):
- Footways in shopping roads;
  - 'Busy urban road' footways;
  - Other footways beside roads and scheduled urban footpaths (including London and Barnet strategic walks through urban areas);

- London and Barnet strategic walks linking urban areas (mainly through parkland); and
- Other rural public footpaths and walking routes (including London and Barnet strategic walks in rural areas, mainly London Loop).

**Figure 2.6 - Walking routes in the borough**

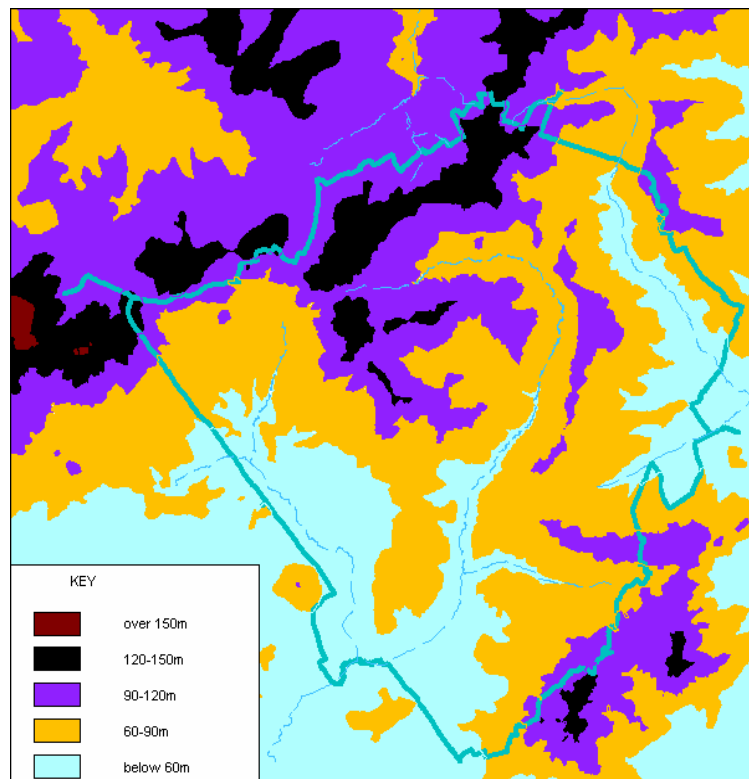


## CYCLING

2.14 There are relatively few cyclists in Barnet, (0.6% of trips undertaken by Barnet residents are by cycling, refer to Table 2.1). This may, in part at least, be explained by the borough's topography; a series of ridges and valleys cross the borough result in steep gradients in many areas (Figure 2.7). Settlements

and main roads have historically tended to develop on the more level ground and therefore routes that are more attractive for cycling tend also to be the busiest with other traffic.

**Figure 2.7 - Elevation**



2.15 However also partly as a consequence of the topography routes through the green belt, as well as off road routes, provide a pleasant environment for leisure cyclists.

2.16 – 2.20 Not Used

2.21 Barnet Council will work with cycle groups to identify where new cycle facilities are required, focussing particularly on:

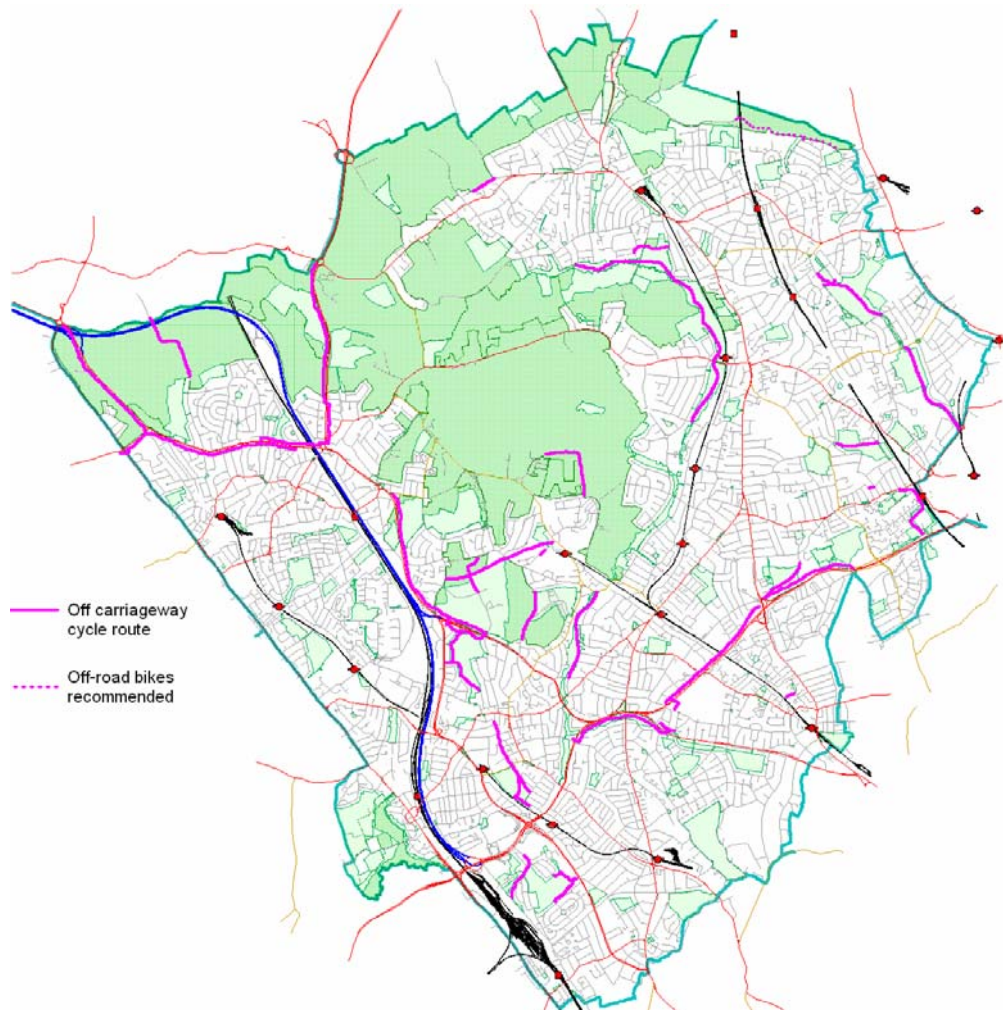
- school journeys;
- providing secure cycle parking at stations;
- around town centres; and
- other potential cycle trip generators.
- Completion of LCN+
- Roadspace reallocation

2.21a The following extract from the Council's adopted UDP of May 2006, clarifies the Council's overall approach to cycling and walking' in the borough undergoing change. Whilst it is primarily worded with the spatial planning of regeneration areas in mind, it has borough-wide application in the vicinity of all new development:

- Policy M4 – Pedestrians and Cyclists – Widening Opportunities: The council will identify and implement additional cycle routes, which are

segregated from motorised traffic, in the location and design of new development. Developers will be expected to provide convenient, safe and secure facilities for those people wishing to travel by bicycle, and enable and encourage access to new developments by pedestrians and cyclists, maximising the pedestrian and cycle catchment area and the opportunities to travel on foot and by cycle. The council will promote the guidance identified in Transport for London's London Cycling Action Plan and encourage the provision of relevant sections of the London Cycle Network Plus.

**Figure 2.8 - Existing off carriageway cycle routes**



### EXISTING TRANSPORT DEMAND

2.22 Around 830,000 trips are made by Barnet residents each day, (LATS 2001). Fifty five percent of trips are made to destinations within the borough, (once trips home have been excluded). Of the other trips made, 20% are made to adjoining London boroughs (Camden 6%, Brent 5%, Haringey 4%, Enfield 3% and Harrow 2%); 9% are to Westminster, 2% to the City of London and 2% to Islington; 2% are to other destinations inside the M25 and 3% to other destinations outside the M25.



- 2.23 Trips to Camden (40%), Westminster (44%), City of London (62%) and Islington (46%) are more likely to be made by public transport, with underground trips dominating. Bus travel also played an important role in trips to Haringey (17%), Brent (14%), Enfield (14%), Harrow (13%) and destinations inside the M25 (14%). Destinations where car trips was the dominate mode included trips to Enfield (71%), Harrow (68%) and destinations outside London both within (73%) and outside (81%) the M25.
- 2.24 A greater proportion of other work (57%) and personal business trips (60%) are made by car. Trips to the usual workplace (41%) or to the shops (42%) are less likely to involve car use.

**Table 2.1 - Trips by Barnet Residents**

<b>Main mode</b>	<b>%</b>
National rail	1.4
Underground/DLR	9.5
Bus (+school/wk bus/coach/tram)	10.9
Taxi	0.8
Other	0.0
Car driver	36.0
Car passenger	14.2
Van/Lorry	1.1
Motorcycle	0.5
Cycle	0.6
Walk	25.1
<b>Destination purpose</b>	
Home	40.2
Usual workplace	13.5
Delivering/loading	0.3
Other work	3.7
Entertainment/sport/social	10.9
Shopping	12.6
Use Services/Personal Business	4.8
Education	6.4
Drop off/pick up - work	0.6
Drop off/pick up - school /college	3.9
Drop off/pick up - other	2.9
Other	0.1

Source: LATS 2001

**TRAVEL TO WORK AND EDUCATION**

- 2.25 Travel to schools and colleges by foot is lower than average for an outer London borough, but public transport use is significantly higher, with only slightly higher car use (refer to Table 2.2). This lower walking rate but higher public transport use is probably reflecting greater distances travelled.

**Table 2.2 - Trips to school or college**

Mode	Usual mode of travel to education (residents)	
	Barnet	Outer London
Car Driver	3%	3%
Motorcycle Driver	0%	0%
Pedal bike	1%	1%
Car Passenger	28%	26%
Small van / minibus Passenger	0%	1%
Bus	24%	21%
Tube	10%	5%
Train	1%	3%
Walk	32%	39%
Other	1%	1%

Source: LATS 2001

- 2.26 Of people working in the borough, 49.2% either travel more than 5km to work or have no fixed workplace. It therefore seems likely that a large proportion of those using a car are travelling distances that would be impractical by foot or cycle.

**Table 2.3 - Usual mode of travel to work**

Mode	Resident population		Workplace population	
	Barnet	Outer London	Barnet	Outer London
All working (Number)	145,920	2,065,353	106,906	1,636,845
Work mainly at or from home	10.6%	8.5%	14.5%	10.8%
Underground/metro/light rail or tram	22.9%	13.4%	6.5%	4.7%
Train	5.2%	13.3%	3.0%	5.3%
Bus/mini bus / coach	8.8%	9.2%	10.8%	10.4%
Motorcycle / scooter / moped	1.1%	1.3%	0.9%	1.1%
Driving a car or van	40.6%	41.7%	50.7%	52.7%
Passenger in a car or van	2.8%	3.2%	3.3%	3.7%
Taxi	0.6%	0.6%	0.7%	0.7%
Bicycle	0.9%	1.6%	0.9%	1.7%
On foot	6.0%	6.9%	8.2%	8.6%
Other	0.4%	0.3%	0.4%	0.4%

Source: Census 2001

### **CAR OWNERSHIP AND USE**

- 2.27 An estimated 630,000 car trips are made each day in or through Barnet. Just over a quarter of these trips are trips wholly within the borough. Nearly half either start or end in the borough, with the remaining quarter being purely through trips.

2.28 Car ownership within Barnet is relatively high, with 73.3% of households having access to a car and an average number of cars per household of 1.09, compared with 71.4% and 1.04 respectively for Outer London.

2.29 – 2.48 Not Used

### **Road network**

2.49 Even with a major effort to attract car users to other modes an increase in road traffic demand in the borough by 2011 is nevertheless likely.

2.50 Improvements to junctions on the TLRN and the North Circular Road in particular will be essential to manage this extra traffic, particularly in conjunction with the regeneration areas.

2.51 Barnet is committed to junction improvements and other work on its own network that will improve traffic flow for all road users; however without improvements on the TLRN network this can have only limited effect.

2.52 Attempting to maximise modal shift to other modes will be essential, and this will be a significant challenge in itself. However it can only hope to be successful if the necessary capacity can be provided on these other modes.

### **Bus network**

2.53 London Buses expect to increase bus capacity by 40% between 2001 and 2011. While a high proportion of increased capacity will no doubt be related to Central London and the congestion charge zone, a total TfL increase in bus capacity of 40% would appear hard to achieve unless a significant proportion of it occurred pan-London including in the London Borough of Barnet.

2.54 It would appear that this should be able to provide ample projected capacity for any modal shift that might be achieved between car and bus, however much of this capacity is likely to be made available outside the peak movement periods.

2.55 It is important to note that the bus is the only realistic public transport option for orbital travel, and much current car use falls into this category. Increased bus provision on orbital routes will have to play a key role in meeting the transport needs of current and future residents.

2.56 As noted earlier bus provision is relatively good, particularly when compared with areas outside London. However the lower frequencies and need to change buses to make many orbital or out of London trips is a deterrent to those residents that can choose to use a car or take a taxi.

2.57 Rates of bus trips to surrounding boroughs that cannot be accessed easily by underground is slightly higher than to those that can, but does not come close to the proportions that use the underground where this is an option.

- 2.58 Car trips to these areas are correspondingly higher. Although measures can and are taken to make car travel less attractive to some areas (through the use of parking restrictions and charges for example) this is impractical for many trips and may limit the ability to travel of some groups as well as having economic consequences to some businesses and town centres.
- 2.59 At least as necessary is the provision of attractive bus routes that provide a realistic alternative to private car use to a wide range of destinations.
- 2.60 The citizen panel highlighted that the top three factors that would encourage bus use were increasing the frequency (66%), improving reliability (55%) and better coverage (38%). The most unattractive features were that they are unreliable (17%), dirty or filthy (8%), slow (7%) and infrequent (7%). However eleven percent described the buses as good or comprehensive.

### **Underground network**

- 2.61 TfL are currently predicting a 17% increase in total underground capacity by 2011. This includes signalling improvements at Camden Town by 2011 and station improvements within Barnet by 2010, both contributing to an overall 21% increase in capacity on the Northern line by 2012.
- 2.62 It is reasonable to assume that Barnet residents (rather than residents elsewhere along the route) will in future be able to make use of their share of this 17% increase in capacity, therefore allowing an increased usage by Barnet residents of 17%.
- 2.63 London Underground does not believe station capacity will cause operational difficulties for the 'foreseeable future', although congestion relief works are being undertaken at the 4 most congested Northern Line stations: Camden Town, King's Cross, Tottenham Court Road and Bank which will have a beneficial impact for the residents of Barnet.
- 2.64 Although some Barnet residents will also use the Piccadilly Line and possibly the Jubilee line, the main tube line serving the borough is the Northern line. As the increases in capacity on the Northern line are projected to be greater we can perhaps assume a higher figure of additional capacity of around 20% across all underground provision relating to Barnet.
- 2.65 It would appear, therefore, that assuming TfL's predicted capacity increases come on line this will be adequate to cope with the increased population and a significant degree of modal shift.
- 2.66 The citizen panel highlighted that Underground's most unattractive features was its unreliability (18%), expensive (18%), overcrowded (15%) and dirty or filthy (14%). The Underground was not rated as favourably as buses with only 9% described the Underground as good/comprehensive. Their view of the top three factors that would encourage use of the underground were improving reliability (60%) decreasing its cost (54%) and increasing the frequency (30%).

**Rail network**

- 2.67 The overland train network represents a fundamental element of the Mayor's plans for delivering the public transport capacity required to meet the needs of Barnet.
- 2.68 The Mayor's Transport Strategy model assumes a 9% increase in train capacity to 2011 excluding the major Crossrail and Thameslink projects (27% including these).
- 2.69 A new Thameslink/Great Northern (WAGN) franchise bidding process is currently underway. The new franchise will combine services from WAGN and Thameslink to create a single train operating company, initially for 4 years but with scope for extension to a total of 9 years.
- 2.70 Thameslink 2000 will provide extra capacity at Mill Hill Broadway and Hendon by platform lengthening and generally has potential to improve capacity on both national rail lines in the borough. Some of the improvements could be introduced locally earlier but the decision has been made nationally not to do so.
- 2.71 With much of the regeneration expected in areas served by the existing Thameslink line in the West of the borough, and limited capacity on trains on this line at present, such improvements will be vital in meeting increased demand from the regeneration areas and modal shift.
- 2.72 Crossrail, as currently envisaged, will not directly affect train capacity within Barnet but could influence travel patterns. By providing additional distribution capacity within Central London it could make both Thameslink and Great Northern services more attractive to borough residents by offering interchange at Farringdon for journeys say to Canary Wharf. This would relieve the Northern Line and particularly the Bank branch. However, Thameslink trains could become increasingly overcrowded.
- 2.73 There is potential for rail services to contribute significantly to the increased transport requirements of the borough. Thameslink 2000 will be central to this, but any benefits are unlikely until after 2011.
- 2.74 The citizen panel highlighted that the rail's most unattractive features was the cost (13%), unreliable (7%), and dirty or filthy (6%). Less than 25 respondents on the citizen panel described the service as good/comprehensive, in fact 11% said they rarely or never used the trains. Their view of the top three factors that would encourage use of the underground were decreasing its cost (66%) increase reliability (48%) and increasing the frequency (42%).