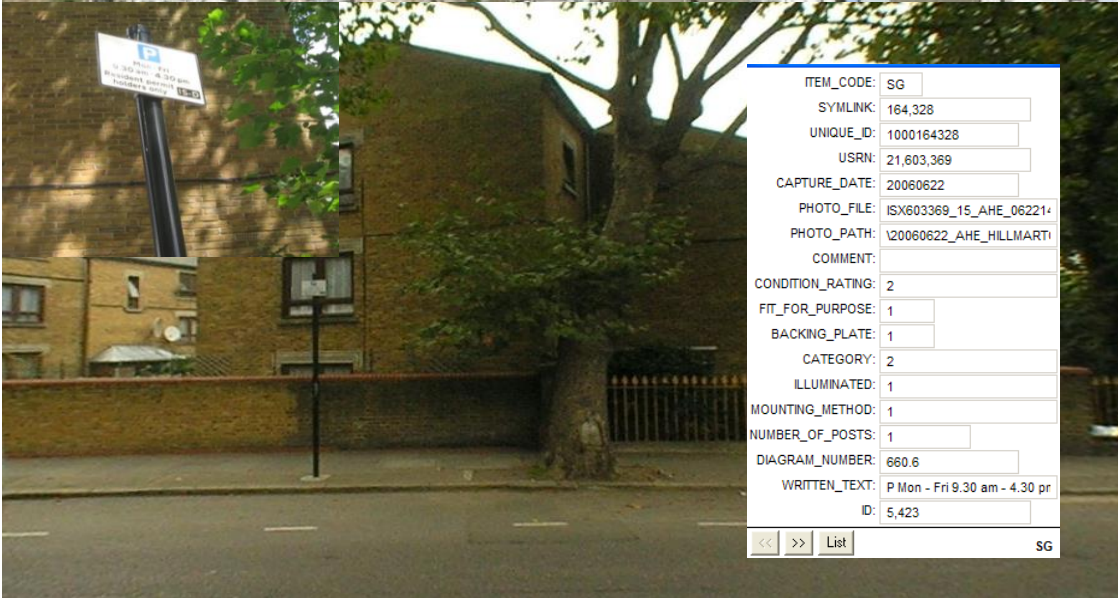


# Highway Asset Management Plan



ISLINGTON

<b>Version</b>	<b>Amendment</b>	<b>Date</b>	<b>Author</b>
C	Draft	Nov 2006	M Holland
D	App 2 Added	Aug 2007	M Holland
E	Section 5 add TMA	Dec 2007	M Holland
F	Service level abstracts added	Sep 2008	M Holland
G	Google adoption	June 2009	M Holland
H	CIPFA Update	May 2010	M Holland
J	Census update	Dec 2014	M Holland

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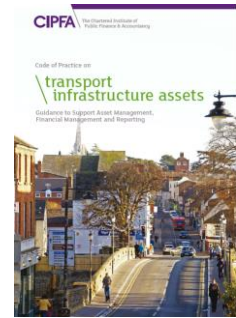
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**Appendix 1 Islington Statistics**

**Appendix 2 Inventory**

# 1. INTRODUCTION

1.1 This document sets out how the highway assets are valued by Islington and sets out the context of the road network within the local community. The valuation process follows the guidance given in the “Code of Practice for transport infrastructure assets” published by the Chartered Institute of Public Finance and Accounting (CIPFA).



# 2. ISLINGTON

2.1 Islington is a central London borough of 16 sq km with over 290km of highways and over 160kms of bus routes. As a network, it consists largely of local streets intersected by two major routes. The A1 trunk road running north to south and the A501 running east to west. The highway network comprises of 14km of A roads managed by Transport for London (TfL), 18km of private and estate roads and 265km of borough roads. Of the 265km of borough roads, 25km are A roads and 85km are in conservation areas. Full statistics are at Appendix 1

2.2 Effectively, the entire borough is a controlled parking zone and the council actively encourages sustainable transport options. Through traffic is encouraged to use the primary routes by speed restrictions and traffic calming in residential streets.

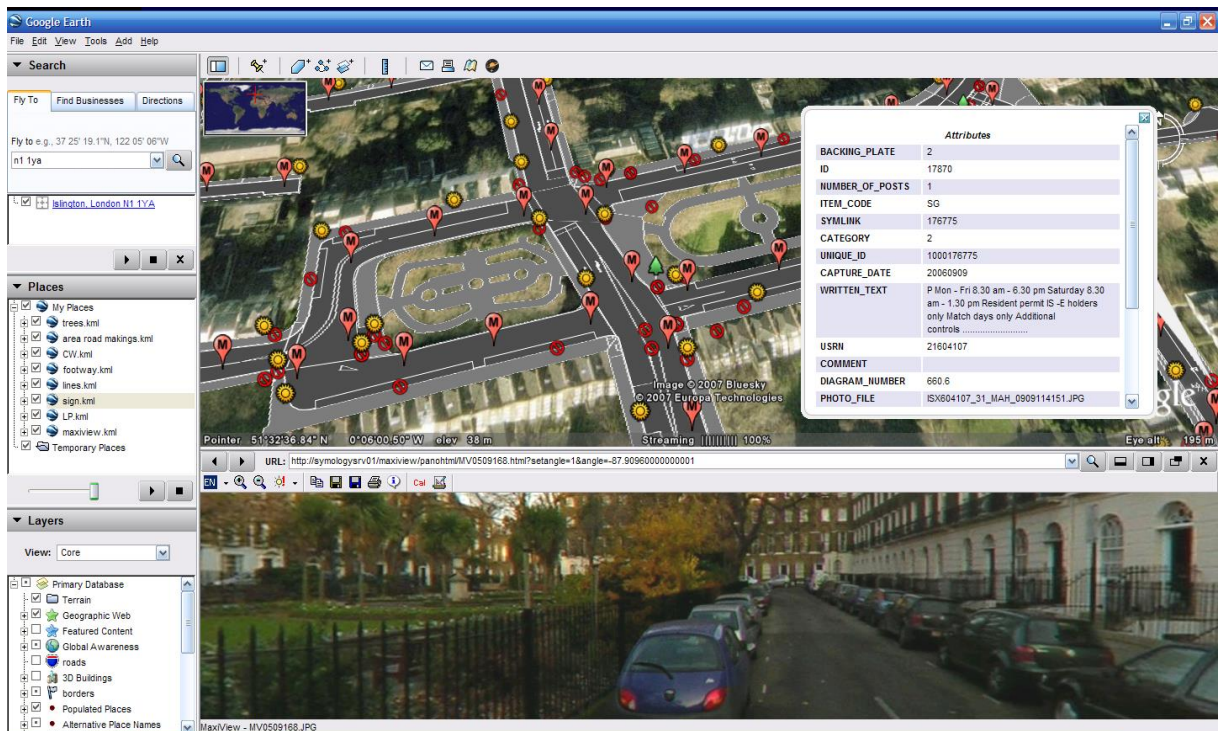


2.3 Islington is a congested area with parts of the borough designated as congestion charging zones.

2.3 Traffic management measures are a significant proportion of reconstruction costs in this central London location. Because of the significance of traffic management issues and the effect of diversions, on local communities, Islington and neighbouring areas, it is not envisaged that large lengths of road could be closed for reconstruction. Therefore the rates used for valuation do not allow for any reduction in scale.

### 3. STANDARDS

- 3.1 The highway standards are set out in Islington's design guide, the Streetbook. This describes the palette of materials and finishes for the streets and includes for the use of heritage materials in conservation areas.
- 3.2 Islington's policy is set out in "Sustaining and Managing our Streets – A Code of Practice" that describes the strategies and methods for delivering highways maintenance in Islington. This reflects the standards set in the national codes as appropriate for a central London borough. The road hierarchy detailed in the national code has been followed.
- 3.3 Islington's highway needs are resident driven. Traditional technical descriptions of our streets are expressed in terms of road type, construction and traffic flows. Our residents see our streets not by what they are made of, but in terms of the activities that occur alongside them. A resident will describe a street as residential, industrial, shopping centre etc. They will also have a perception of areas with regard to safety, cleanliness and accessibility
- 3.4 The highways asset management system is geographically based and mounted on our own Google Enterprise platform with our own 360° imaging. This enables the traditional highways data to be overlaid with all of the available social data such as crime statistics, cleansing regimes, traffic flows and type, public transport, deprivation, planning etc. (We believe that the list is only limited by our imagination).
- 3.5 Investment decisions can then be reached by considering both highway conditions and social impact.



Typical Asset Management Screen Shot

## 4. HIERARCHY

4.1 The streets in Islington are designated in hierarchies that accord with the national codes of practice. A summary is in Table 1

Carriageway Hierarchy	km	Description	Footway Hierarchy	km	Description
1	0.00	Motorway	1(a)	16.22	Prestige walking Zone
2	40.13	Strategic Route	1	62.84	Primary Walking Route
3a	9.25	Main Distributor	2	89.38	Secondary Walking Route
3b	35.38	Secondary Distributor	3	384.6	Link Footways
4a	190.51	Link Road	4	38.88	Local Access Footways
4b	19.44	Local Access Road			
			<b>Total</b>	591.92	
<b>Total</b>	294.72				

Table 1

## 5. ISLINGTON'S AIMS AND OBJECTIVES

- 5.1 The authority's vision is to make Islington a
- a fairer and greener place to live
  - a place where people of all backgrounds are able to realise their full potential and
  - a borough of safe, empowered communities.
- 5.2 The Sustainable Transport Strategy (STS) sets out Islington's approach to managing transport in the borough and how this is linked to the authorities other obligations and duties in accordance with S16 of the Traffic Management Act 2004.
- 5.3 The document is at: <http://www.islington.gov.uk/Transport/SustainableTransportStrategy/>
- 5.4 The aims and objectives set out in the STS are reflected in how highways are renewed and the costs of that renewal in accordance with Highway Infrastructure Asset Valuation Guide.

*2.2.1 Key objectives of Highway Asset Management, as with RAB, are to promote greater accountability and improved stewardship of public assets, and **to systematically link resources to the delivery of an authority's objectives.***

*5.3.1 Asset valuation requires a true and fair monetary value to be placed on the highway assets. The standardised Unit Rates and Gross Replacement Cost models should **take account of the factors that have a significant influence on replacement cost.***

## 6. SERVICE LEVELS

6.1 The service levels are set out in a suite of documents that links Islington Council's aims and objectives directly from the STS to highways maintenance services. These documents are:

- Part 1 The Strategy  
*How Highways Services achieves Islington's objectives.*
- Part 2 The Manual  
*Provides details of the individual elements of the service, their procedures and processes*
- Part 3 The Handbook  
*Provides details of how operational services are delivered*

Key service levels are

### Inspections

Feature	Category	Reference	Islington Frequency *
Carriageway	Main Distributor	3(a)	1 or 3 month
	Secondary Distributor	3(b)	3 month
	Link Road	4(a)	3 or 6 month
	Local Access	4(b)	6 month
Footway	Prestige Areas	1(a)	1 month
	Primary Walking Route	1	1 month
	Secondary Walking Route	2	3 month
	Link Footway	3	6 month
	Local Access Footway	4	6 month
Cycleway	Part of Carriageway	A	As for carriageway
	Remote from Carriageway	B	6 month or as for footway

\* Subject to service commitments, target  $\pm$  10% of interval time

6.2 All defects are recorded and categorised as Emergency, Urgent or Planned works:

**Emergency** – those that require emergency attention within 4 hours because they represent a significant threat to life and limb

**Urgent** - those that require prompt attention within 3 days because they represent a hazard.

**Planned works** (non-hazardous defects) – all other defects/planned maintenance

6.3 Table 2 indicates elements that may be included in the design and replacement cost of highways based on a fence – fence approach where all elements are renewed.

1	Conservation Area	Use appropriate heritage materials.
2	Traffic Loading	Construction to suit forecast traffic loads
3	Bus routes, type of bus and possible bus diversion route	Provide special loading or layout .
4	Key Buildings	Incorporate needs of stations, hospitals and stadia etc..
5	Licenses issued	Footways built for shared use e.g. restaurants.
6	Planning granted	Recognise developments that may affect the character of highway
7	Abnormal load routes	Particular road loadings and layouts may apply
8	One Way Streets	Present particular traffic management issues
9	Planned highway works	These may address particular short comings in the network, or be in furtherance of other initiatives
10	Third part claims history	Seek to make the new works claim-proof
11	Congestion charging zone	Additional notifications and the potential to increase construction costs
12	Sweeping frequency and if footways mechanically swept	Design for the loading and abrasion of mechanical sweepers.
13	Drainage issues	Allow for new drainage to current standards
14	Emergency service's routes	Will affect the layout of roads and the programme of re construction.
15	Crimes and ASBOs	Supporting safer neighbourhoods by designing out crime related features or opportunities for anti social behaviour.

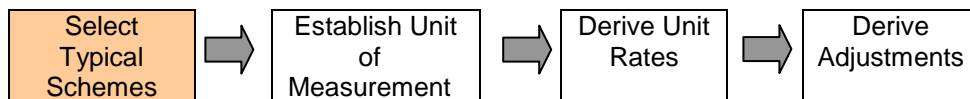
**Table 2**

6.4 The service life of footways and carriageways is assessed at 40 years. Highway structures at 120 years and street furniture at 20 years. No assessment has been made of lighting equipment as this is calculated in accordance with the PFI requirements.

6.5 Highway investment schemes will be recorded in the HAMP calculation sheet. This data will provide input to recalculate the gross replacement costs and amend the condition score for the item.



## 7. VALUATION



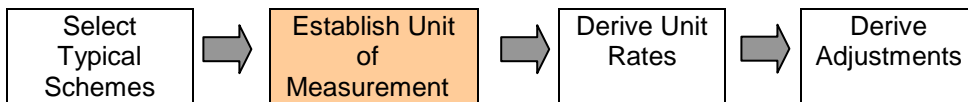
- 7.1 Data is captured and recorded on to an appropriate database that can interface with our Graphical Information system, other council operated GI systems and is capable of downloading on to other systems such as Access and XL.
- 7.2 Currently the Highways GI platform is Google. Using the Google Enterprise systems all highway inventory and condition data is displayed. Complimentary data is also provided such as , traffic flows, crime levels, bus reliability, deprivation, demographics etc. in order to understand how the highway assets are used. This platform has been selected as it is the most appropriate to turn towards the public.
- 7.3 The highway asset has been valued based upon the current replacement costs. The gross replacement costs (GRC) are derived from the analysis of current renewal schemes within each hierarchy band carried out in accordance with the service levels.
- 7.4 Valuation will be based upon the rating, ranging from 4 for new to 1 to life expired. An additional rating of 5 is used to identify redundant items, eg a post with no sign attached.

Rating	Deterioration
1	80-100%
2	50-79%
3	26-50%
4	0-25%
5	Redundant - No Value

**Table 3**

- 7.5 From the deterioration assessment the residual life of the asset is determined and with it the residual value and the depreciated replacement cost (DRC)
- 7.6 The annual change in the DRC is the annual depreciation cost.
- 7.7 The asset data system will provide the data, grouped as section 8. The GRC and DRC will then be calculated from the HAMP spreadsheet.

## 8. UNITS OF MEASUREMENT



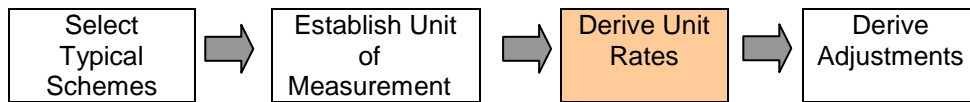
<b>Level 1 Asset Type</b>	<b>Level 2 Asset Group</b>	<b>Level 3 Components</b>
Road	Flexible Pavements Flexible Composite Pavements	Carriageway Footways Heritage Footways Markings Kerbs Heritage Kerbs Trees / shrubs Fences Street Furniture (exclude lit furniture)
Structures	Bridges Pipe Subways	Individual Structures
Lighting	Lighting Columns	PFI Duration

**Table 4**

### 8.1 QUANTITIES

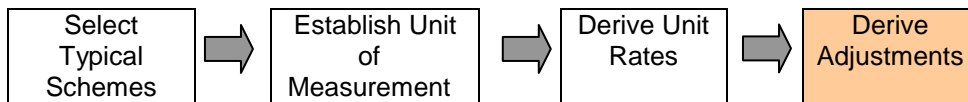
Quantities are taken from the inventory and condition survey carried out in 2006 and mounted on the Asset data system. A summary of the quantities is at Appendix 2.

## 9. UNIT RATES



- 9.1 Unit rates are derived from current contract prices. Schemes are placed in appropriate hierarchies and the total costs of works are determined. Where appropriate costs may be discounted for works outside of the scope, or added at current rates for renewable elements not included in a particular scheme.
- 9.2 Rates will include provisions for consultation, traffic management and fees. The rates will reflect the totality of the works that are delivered in a way that achieves Islington's corporate objectives.

## 10. ADJUSTMENTS



- 10.1 By using the actual costs of completed schemes in their entirety, the adjustment is already built into the valuation. However, for comparative purposes the adjustment can be determined by the simple formula

$$\text{Additional Cost of Adjustment} \quad \times \quad \frac{\text{Quantity affected}}{\text{Total Quantity}}$$

## 11. BRIDGES

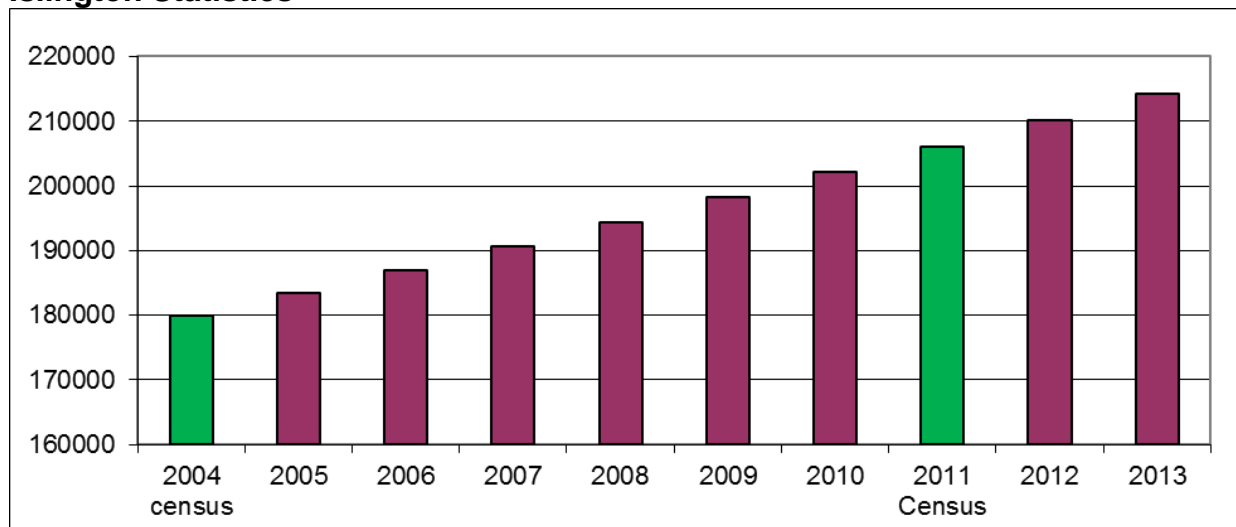
11.1 At present Islington have 8 bridges and a pipe subway that vary in their age, characteristics and strength. Therefore they are be valued individually.

18/B/LA/S01	<b>CLERKENWELL BRIDGE</b>
S02	<b>CALEDONIAN ROAD (THORNHILL) BRIDGE</b>
S03	<b>CROUCH HILL BRIDGE</b>
S05	<b>MOUNTVIEW ROAD BRIDGE</b>
S07	<b>ROSEBERY AVENUE BRIDGE</b>
S08	<b>WHARF ROAD BRIDGE</b>
S09	<b>WILLOWBRIDGE ROAD BRIDGE</b>
S10	<b>YORK WAY BRIDGE</b>
M1A	<b>ARSENAL SOUTH BRIDGE (Dial)</b>
M2A	<b>ARSENAL NORTH BRIDGE (Northbank)</b>
PS	<b>ROSEBERY AVENUE PIPE SUBWAYS</b>

**Table 5**

# APPENDIX 1

## Islington Statistics



Predicted population growth

**Figure 1**

Description	km
TfL Roads	14.35
A Roads (Borough)	27.74
B Roads	11.04
C Roads	15.08
LDR	12.33
Unclassified Borough Roads	196.82
Private & Estate roads	18.82
<b>Total</b>	<b>296.2</b>

**Figure 2**

Geographic Data	
Road Length km	296.20
Population	182469
Pop/km of road	616.02
Area	16sq kms
Pop /sq km	11404.32
Km of road /sq km	18.51

**Figure 3**

Various	
TfL Roads	14.36
PRN (exclude TfL)	25.94
STR (excludes TfL)	11.93
Bus Routes	161.30
Conservation (Areas Borough Roads)	86.35

**Figure 4**

## Appendix 2 Inventory 2006 Summary (Full Survey is GIS based)

### Islington owned Street Furniture

#### Signs

Condition	Post (Other)	Sign Post	Non Illum Signs
Asset unsafe	0	14	5
Major/structural defects	1	213	477
Minor/cosmetic defects	15	2708	2863
No defects	28	9650	13365
<b>Total</b>	<b>44</b>	<b>12585</b>	<b>16710</b>

Condition	Rating
Asset unsafe	1
Major/structural defects	2
Minor/cosmetic defects	3
No defects	4
Redundant	5

#### Guard Rail (2m Lengths with posts)

	Guard Rail
Asset unsafe	7
Major/structural defects	245
Minor/cosmetic defects	1872
No defects	2127
<b>Total</b>	<b>4251</b>

#### Cycle Stands

	Cycle St Sheffield	Cycle St M/Cycle	Other Cycle
Asset unsafe	0	0	0
Major/structural defects	0	0	0
Minor/cosmetic defects	106	25	14
No defects	137	189	22
<b>Total</b>	<b>243</b>	<b>214</b>	<b>36</b>

<b>ALL</b>	<b>493</b>
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### Seating

	Seating
Asset unsafe	1
Major/structural defects	7
Minor/cosmetic defects	144
No defects	196
<b>Total</b>	<b>348</b>

### Bollards and Barriers

	Locking Bollard	Firegates	Lift Barrier	Other Barriers	Bell Bollard	Concrete	Newton	Oxford	Other Bollards	In-line Kerb Bollard
Asset unsafe	1	0	0	0	0	1	5	0	9	0
Major/structural defects	0	4	1	0	5	8	78	21	60	7
Minor/cosmetic defects	9	42	1	2	48	278	1279	412	953	54
No defects	56	39	4	5	25	1106	2311	687	1795	13
<b>Total</b>	<b>66</b>	<b>85</b>	<b>6</b>	<b>7</b>	<b>78</b>	<b>1393</b>	<b>3673</b>	<b>1120</b>	<b>2817</b>	<b>74</b>

<b>ALL</b>	<b>9319</b>
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### Non Islington owned Street Furniture

Condition	Signal Post	Telegraph Pole	Cycle St Red Routes
Asset unsafe	0	0	0
Major/structural defects	2	0	0
Minor/cosmetic defects	66	1	17
No defects	149	3	146

<b>Total</b>	<b>217</b>	<b>4</b>	<b>163</b>
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**Lighting PFI**

Condition	Illum Signs
Asset unsafe	0
Major/structural defects	88
Minor/cosmetic defects	545
No defects	1664
<b>Total</b>	<b>2297</b>

**Manhole Covers**

CATV	5391
CCTV	56
Drainage	501
Electricity	2637
Fire Hydrant	1817
Gas	77
ICSL Electricity	361
Other	10779
TCSU	453
Telecom / GPO	16876
Water	2049
<b>Total</b>	<b>40997</b>

**Valve Covers**

Cable London	9794
CATV	4796
CCTV	147
Gas	13277
Other	3709
Water	30189
<b>Total</b>	<b>61912</b>

**Vents**

	232
<b>ALL</b>	<b>103141</b>



## Highway Features

### Speed Humps

	Cushion	Hump	Table	Other
Asset unsafe	0	0	0	0
Major/structural defects	5	5	0	0
Minor/cosmetic defects	165	240	36	0
No defects	566	810	124	2
<b>Total</b>	<b>736</b>	<b>1055</b>	<b>160</b>	<b>2</b>

<b>ALL</b>	<b>1953</b>
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## Highway Marking

### Area

Diagram	1003	1013	1014	1018	1023	1036	1037	1038	1039	1040	1041
Number	55	27	20	1	439	48	17	347	1	432	9

Diagram	1042	1043	1044	1045	1050	1057	1059	1062	1064	NO_N
Number	5	52	19	4	6	2	13	4988	2	29

### Point

Diagram	967	1057	1065	Congestion Charge	Other
Number	1	876	128	15	17

### Text

Diagram	546	1004	1022	1024	1025	1026	1027	1028	1029	1035	1036
Number	1	3	8	191	452	324	57	534	847	3	113

Diagram	1037	1039	1046	1048	1057	1058	NO_N	STOP
Number	28	1	153	375	1	22	834	1

### Carriageways

Type	Bituminous	Concrete	Special	Other	Flagged / Setts
Area (m <sup>2</sup> )	1,605,219	11,014	71,535	1,483	42,306
%	92.7%	0.6%	4.1%	0.1%	2.4%

**1,731,557**

Hierarchy	Av. Width m	Len km
2	7.82	27.53993
3	6.64	33.98242
4	5.87	219.9788

### Footways

Type	Bituminous	ASP	Special	Heritage	Modular/Block	Other
Area (m <sup>2</sup> )	126,273	468,658	9,203	55,140	226,628	88,251
%	13.0%	48.1%	0.9%	5.7%	23.3%	9.1%

### Kerbs

Type	Concrete	Heritage	Metal	Other
Length (m)	37,558	377,785	984	844
%	9.0%	90.6%	0.2%	0.2%