

London Borough of Ealing Road Safety Plan

2014

EALING COUNCIL

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Foreword

Safer roads are a priority for Ealing Council and we will strive to make our roads as safe as possible for all users.

Whilst I am pleased that Ealing has already achieved the Mayor of London's new target of a 40% reduction for Killed or Seriously Injured casualties seven years early, the hard work must continue to reduce casualties still further.

I strongly support Ealing continuing to prioritise and develop further road safety for children. An outstanding 15 Ealing schools achieved 'Gold' travel plan status in 2014, including St Gregory's RC Primary School and St Benedict's School who were recognised as the best schools in west London for their achievements in active and safer travel. Overall, the number of active School Travel Plans has increased from 57% in 2011 to 62% in 2014.

Ealing's first cycle to school partnership project has been successfully delivered including a new off-road uphill cycle lane, zebra crossing along with a comprehensive behaviour change programme at two schools. There has also been Balance Bike training for 950 pupils in Nursery - Year 1, plus safe scooter training for over 1,000 year 2 pupils.

There were also 63 Bikeability courses held in 39 Schools with 954 pupils trained to Bikeability levels 1 and 2 (up by almost 10% from previous year) and over 250 additional bikes checked. Finally, the well-received Safe Drive Stay Alive campaign in partnership with Hounslow has continued, reaching over 700 young adults.

Ealing led on the trial of the most comprehensive cycle/lorry collision package in the UK. This involved developing and piloting a new system fitted to lorries designed to warn drivers of a collision with cyclists/pedestrians/motocyclists whilst filtering out false alarms. The system showed marked improvements in safety for cyclists during a 6 month trial with 15 near misses avoided and a significant 20% improvement in driver behaviour.

I am pleased that Ealing continues to be recognised for its achievements and won the following awards in 2014:

- Most effective road safety, traffic management and enforcement project- Lido Junction, London Transport Awards, 2014
- Young Professional of the Year, Maree O'Neill, School Travel Advisor, London Transport Awards, 2014
- Award for Cycling, Bike Swap, Modeshift National Transport Awards, 2014

In addition, Ealing had all seven submissions shortlisted for the London Transport Awards in March 2015.

In 2014 Ealing has also:

- Implemented 17 new pedestrian crossings or pedestrian crossing phases at junctions
- Installed the Pedestrian Countdown system for crossings at Northfields station, West Ealing and Ealing Broadway
- Commenced the Southall Broadway Boulevard project (a key aim of which is to cut road casualties within the town centre)
- Installed a 'Danish Style Roundabout' in Acton town centre which features segregated cycle lanes and raised pedestrian crossings

We have now started to implement projects in the new Local Implementation Plan for the period 2014-17. This will enable us to continue to support established projects and programmes, such as cycle training and cycle infrastructure, whilst tackling new issues such as the rollout of further 20 mph zones and limits in the borough.

Cllr Bassam Mahfouz
Cabinet Member for Transport and Environment, Ealing Council

Executive Summary

Ealing Council wants to reduce collisions and danger on its roads, especially for children, cyclists and pedestrians. The new Ealing Local Implementation Plan 2014-17 has road safety as its number one objective and the Council has a legal duty to make its roads safer.

The Road Safety Plan monitors traffic collisions in the borough and evaluates how schemes have performed in terms of collision reduction success and how the borough is performing against its targets. This document is an update of the previous Road Safety Plan in 2013.

The locations of road collision sites are shown in Maps 3.1 to 3.4. Most road collisions occur on main roads and at junctions as opposed to residential streets.

The trend of total numbers of road traffic collision casualties in Ealing has been falling in recent years to meet the Council's, the Government's and the Mayor of London's targets, although there have been some fluctuations in some categories. Killed or seriously injured (KSI) road casualties in Ealing have been falling significantly in recent years, with a 40% reduction from 2008 to 2012.

The Council has already achieved the Mayor of London's new target of a 40% reduction (on the 2005-2009 average) for KSI casualties seven years early. If improvement continues, Ealing will soon exceed this target of 78 KSIs for a three-year rolling average.

The LB Ealing LIP 2011-14 set a challenging target to further reduce fatalities and serious injuries on the roads by 9% to 2013 and 45% to 2031 compared to the 2006-2008 average, this had been exceeded by a third by 2013.

The adopted road safety targets in the Local Implementation Plan 2014-17 include rate-based targets as well as the actual number of road casualties plus total KSI casualties. Total numbers of killed or seriously injured casualties are at one of the lowest levels in the Borough.

Ealing achieved one of the best reduction of KSIs of all London boroughs with a 32% reduction for 2005-2009 to 2012. This compares favourably to a 17% reduction average across Greater London.

The road safety achievements of Ealing Council have been recognised at London and national levels. These awards are detailed in section 3. Performance Review and recognise that the Council has successfully developed a number of policies and projects recently to continue the reduction in casualties on its roads.

The Council works in partnership with the Metropolitan Police to improve road safety. The police educate road users and enforce traffic offences to help reduce collisions. Enforcement by the Council and TfL prevents vehicles being parked obstructively.

A holistic approach to transport projects means that road safety is tackled in an integrated way with other issues as part of all Corridor and Neighbourhood schemes.

A comprehensive programme of road safety education and training for schools has been developed for on-going delivery and review by the Ealing School Travel Advisors. Ealing Council wants to build on its recent successes in the road safety and road danger reduction fields. Projects completed between 2011 and 2014 will be comprehensively evaluated (in early 2015) to assess their impacts when all sufficient information becomes available.

The LIP 2014-17 has recently been published. The new LIP provides an excellent opportunity to tackle both new and revisit long-standing issues in the boroughs town centres. Innovative new approaches will be trialled (such as mobile speed signs) as well as continuing successful best practice in Ealing such as extensive cycle training, school travel plans and road safety-related projects.

1. Introduction

Background

The Road Safety Plan monitors traffic collisions (accidents) in the borough and evaluates how schemes have performed in terms of their success in reducing collisions and how the borough is performing against its targets¹. Issues regarding policy and strategy in forward planning of transport schemes are dealt with in the LB Ealing Local Implementation Plan 2014-2017 (LIP). This document is an update of the previous Road Safety Plan 2013.

The Council has a legal duty to investigate, promote and implement road safety measures. This is set out under the Statutory Framework in section 2: General Context.

Road casualties are placed into one of three official statistic definitions:

1. **-Fatal injury** is one which causes death less than 30 days after the collision
2. **-Serious injury** is one which does *not* cause death less than 30 days after the accident, *and* which is in one (or more) of the following categories:
 - (a) an injury for which a person is detained in hospital as an in-patient
 - or (b) any of the following injuries (whether or not the person is detained in hospital): fractures, concussion, internal injuries, crushings, severe cuts and lacerations, severe general shock requiring treatment
 - or (c) any injury causing death 30 or more days after the collision
3. **-Slight injury** is any injury which is neither "fatal" nor "serious" - for example, a sprain, bruise or cut which is not judged to be severe, or slight shock requiring roadside attention.

Whilst Ealing Council has made great improvements in reducing collisions on roads in the borough over the last ten years, unfortunately there were 1,117 people killed or seriously injured (KSI) on the borough's roads during this time. However, this figure has decreased from 198 casualties in 2003 to 81 KSI casualties last year. KSI road casualties in Ealing have been falling significantly in the most recent years, with a 40% reduction from 2008 to 2012.

The Council has already achieved the Mayor of London's new target of a 40% reduction (on the 2005-2009 average) for KSI casualties seven years early. If improvement continues, Ealing will soon exceed this target of 78 KSIs for a three-year rolling average.

Ealing also achieved the previous Mayor of London's target to reduce all deaths and serious injuries by 50% by the end of 2010 three years early in 2007.

The LB Ealing LIP 2011-14 set a challenging target to further reduce fatalities and serious injuries on the roads by 9% to 2013 and 45% to 2031 compared to the 2006-2008 average, this had been exceeded by a third by 2013.

Nevertheless, despite previous reductions, there are four major challenges to the continued reduction in road casualties in the years ahead:

1. Ealing has had a significant population increase in the last decade from 300,948 in 2001 to 338,449 residents in 2011. The number of trips starting in Ealing increased from 597,000 per day for 2008/9 to 2010/11 to 664,000 per day for 2010/11 to 2012/13².
2. Increasing volumes of pedestrians and cyclists mean that numbers of casualties sustained may not follow the general downward trend of casualties to other road users. In fact, although the vast majority of collisions involve a motor vehicle, some

¹ These are collisions that are reported to the police. It is estimated that there are many more collisions that occur, especially those causing only slight injuries, which are not reported.

² Travel in London Reports 4 and 6, TfL, 2011 and 2013

70% of the casualties resulting from these collisions are neither the drivers of, nor the passengers of vehicles.

3. As casualties have generally fallen in recent years, it has been increasingly difficult to find patterns in collisions that can be addressed through physical measures, such as traffic calming. Therefore, there needs to be more emphasis on reducing the dangers of vehicles. This includes educating road users to change high-risk behaviours, but larger benefits can be gained from reducing speeds, so that when humans do make errors, the consequences are less serious.
4. Finally, the Council faces pressures on budgets. Therefore it is imperative that resources are targeted effectively to have the greatest impact. This may mean working differently and innovatively, and also being proactive to address known safety problems.

The key to responding to all four of these challenges is having accurate data about road casualties in the borough. Not only where collisions are taking place, but how and why, and looking at the details of those who are being injured and those who are driving the 'other vehicle'.

Ealing Council has produced an evidence-based strategy that seeks to deliver a coherent approach to reducing road collisions, and a focus on achieving tangible progress.

2. General Context

Statutory Framework

The Council has a legal duty to investigate, promote and implement road safety measures.

The **Road Traffic Act 1988**, Section 39, gave local authorities responsibility for all roads except motorways and trunk roads. This was superseded by the Greater London Authority (GLA) Act 1999, which transferred responsibility for the GLA roads to Transport for London but left local authorities responsible for road safety on remaining roads.

The **Road Traffic Act 1988** states that each local authority:

Must prepare and carry out a programme of measures designed to promote road safety and may make contributions towards the cost of measures for promoting road safety taken by other authorities or bodies.

Must carry out studies into collisions arising out of the use of vehicles on roads or parts of roads, other than trunk roads, within their area.

Must in the light of these studies, take such measures as appear to be appropriate to prevent such collisions, including the dissemination of information and advice relating to the use of roads, the giving of practical training to road users or any class or description of road users, the construction, maintenance and repair of roads and other measures taken in the exercise of their powers by controlling, protecting or assisting the movement of traffic on roads and in constructing new roads, must take such measures as appear to the authority to be appropriate to reduce the possibilities of such accidents when the roads come into use.

The Council has a statutory duty to maintain the safe, convenient and free flow of pedestrian and vehicle traffic except where lawful restriction of speed direction or movement of traffic is imposed by a legal order. The Council has powers as a highway authority under the **Highways Act 1980** to construct, manage, maintain and improve highways. It also has powers under the **Road Traffic Act 1991** to enforce parking restrictions for road safety reasons.

The **Road Traffic Regulation Act 1984** places a duty on local authorities to secure the expeditious, convenient and safe movement of vehicular and other traffic, including pedestrians and cyclists, and the provision of suitable and adequate parking facilities on and off the highway and to have particular regard to:

- Reasonable access to premises;
- The effect on amenities; and
- Passage of public service vehicles and the safety of passengers.

The **Traffic Management Act 2004** (TMA) requires all local authorities to expedite the movement of traffic, including motor vehicles plus pedestrians and cyclists, safely on its own and other highway networks (neighbouring boroughs and the TLRN). Vehicle collisions are a significant cause of delay on the road network, so there are clear congestion reduction benefits to be gained by reducing them.

The TMA Part Two deals with Network Management Duty by Local Traffic Authorities, and aims to help reduce congestion and disruption on Ealing's network and other networks. This duty is placed alongside all the other matters, and it does not take precedence. So, for example, securing the expeditious movement of vehicles should not be at the expense of an authority's road safety objectives.

Policy Context

Until 2011, government and the Mayor of London had set local and national road safety targets. This has now been replaced with the localism agenda to allow local authorities freedom to address road safety concerns according to local priorities.

Other key policy influences on road safety in the borough are:

- **The Mayor's Transport Strategy** which states that reducing the number of people killed or seriously injured in road traffic is a key goal for the Mayor;
- **'Safe Streets for London, The Road Safety Action Plan for London: 2020'**
Cycle action plan
- **LB Ealing Local Implementation Plan 2014 - 2017** which includes road safety objectives, projects and targets for the borough which were agreed by the Mayor of London.

International policy

The Mayor of London has committed to international road safety by signing the European Road Safety Charter in 2009. The Charter includes an aspiration to reduce fatal collisions by 50 per cent across the whole of the European Union by 2020. Internationally, road safety has a prominent position (for example the UN Decade of Action for Road Safety 2011-2020) as rising levels of motor traffic increase the exposure to risk on the roads of many countries.

Government policy

The Government published its new National Strategic Framework for Road Safety (SFRS) in May 2011. The SFRS sets out the national policies that are intended to continue to reduce deaths and injuries on the roads. The long-term vision of the SFRS is to ensure that Britain remains a world leader on road safety. In support of this ambition, The SFRS places an expectation on local government to continue to prioritise road safety and to seek improvements by adopting policies that reflect local priorities and circumstances. The SFRS emphasises the importance of local decision making to reflect local road safety priorities. The key themes of the SFRS include:

- Encouraging road users to take more responsibility for their actions
- Remedial training for people who make low-level mistakes
- Tougher enforcement for the small minority of motorists who deliberately drive dangerously

This framework has moved away from using national casualty targets to monitor road safety. It also sets out a wide range of measures to tackle careless and dangerous driving – including a new fixed penalty notice for careless driving and tougher action against drink and drug drivers. The Outcomes Framework is designed to help improve road safety and decreasing the number of fatalities and seriously injured casualties on the roads.

The Mayor of London's Policy

The current Mayor's Transport Strategy (MTS), 2010 highlights the Mayor's commitment to reducing the number of people killed or injured on London's roads. Central to this is MTS Policy 19:

Policy 19

'The Mayor, through TfL, and working with the DfT, Network Rail, train operating companies, London boroughs and other stakeholders including the police and road safety partnerships, will seek to improve road safety for all communities in London and implement measures that contribute to any targets that may be set by the Mayor from time to time.'

Other MTS proposals directly related to road safety are:

- Proposal 64 – Road safety targets
- Proposal 65 – Road Safety Plan

MTS Proposals 63 to 74 also have road safety elements which include casualty reduction (targets publicity and engineering measures), cyclist, work-related and HGV targeted actions.

'Safe Streets for London, The Road Safety Action Plan for London: 2020'

The 'Safe Streets for London, The Road Safety Action Plan for London: 2020' document was published by TfL in June 2013. This document serves as the overall road safety plan for London and includes the following:

- A London-wide KSI target to reduce killed or seriously injured (KSI) casualties on the 2005-2009 average by 40% across London by 2020.
- Invest in London's roads to make them safer
- Commit to and improve London's safety camera network
- Actively lobby for improvements in vehicle design and changes to national regulations to allow greater innovation in road safety
- Run an ongoing programme of targeted communications campaigns
- Conduct an ongoing research programme to inform policy making
- Ensure good quality, detailed data is provided to the public and stakeholders on a regular basis

Ealing Council welcomes the publication of this updated Road Safety Plan for London and looks forward to working in partnership with TfL to make the roads as safe as possible. Ealing has flagged up the following road safety issues to TfL:

- Greater emphasis was needed to address the causes (as opposed to the symptoms) of road collisions, especially pedestrians and cyclists hit by motor vehicles.
- More importance needed to be attached to enforcement issues. Colleagues in the Metropolitan Police report that mobile use whilst driving is endemic and drink and/or drug use whilst driving are frequent and often under reported in collision data.

TfL Cycle Safety Action Plan

The new Cycle Safety Action Plan (CSAP) published 2014, builds on the first action plan from 2010, as well as the Cycling Vision and Safe Streets for London. It has been developed with the insight and expertise of stakeholders, who contributed to the actions consolidated in the plan. These actions were also revised following public consultation of the draft plan. The new plan focuses on understanding the risks and challenges faced by cyclists on London's roads and uses an intelligence-led approach to identify the most effective and significant interventions.

Improving the safety of road infrastructure is a central focus of this new plan, particularly in the design of junctions, roundabouts, signals and cycle lanes. TfL have championed

innovations, such as the use of advanced cycle signals, advanced stop lines and blind spot safety mirrors and will continue to invest in and develop the best and safest solutions for the capital. TfL will trial innovative road layouts and safety technologies and fund the development of its engineers and designers and those in the London boroughs.

In publishing this plan TfL will look to these stakeholders, and all others involved in cycle safety, to work together to deliver the improvements needed to make London a place where cyclists truly feel they belong and are safe.

Ealing Council Policy

The Ealing Local Implementation Plan (LIP) 2014-2017 sets out transport policies, projects and monitoring for the period 2014 to 2017 in detail and is available at http://www.ealing.gov.uk/info/100011/transport_and_streets

The LIP has road safety as its number one objective and has set mandatory and local targets for killed or seriously injured and all road casualties.

LBE LIP Objective 1 'Improve road safety and reduce road danger on the borough transport network for all users, in particular pedestrians, cyclists and motorcyclists'

The LIP also includes road safety targets for the borough which have been agreed by the Mayor of London. These are:

- Killed or seriously injured road traffic casualties (mandatory target)
- All road traffic casualties (mandatory target)
- Probability of cyclist road casualties per trip (local target)
- Probability of pedestrian road casualties per trip (local target)

Ealing is the only borough in London to set rate-based casualty reduction targets for pedestrians and cyclists as formal policy in its LIP.

Ealing is one of the few London boroughs to have a current Road Safety Plan.

Public Health

Road safety has significant public health implications, especially the cost of emergency medical care and rehabilitation following injury. Recently the Government gave local authorities new additional public health responsibilities. These present opportunities for community engagement and for developing holistic solutions to health and welfare issues that embrace the full range of local services, including transport.

A key tenet of the Health and Social Care Act 2012 is the creation of statutory Health and Well Being Boards in every local authority to improve health and care services and the health and well-being of local people. Health and Well Being Boards bring together locally elected councillors, representatives from key commissioning groups, directors of public health, children's services and adult social services and a representative of local HealthWatch (the patient's representative body). All of London's local authorities have a 'shadow' Health and Well Being Board in place and fully established statutory boards have been in place since April 2013.

The Government's SFRS recognises that public health can bring a more effective approach to collision prevention by using objective problem identification and analysis techniques.

Road Danger Reduction

Ealing Council has pioneered an innovative, combined 'road safety' and 'road danger reduction' approach to make its roads safer. The Council has integrated these principles into its policies and projects to continue the reduction in casualties on its roads. This has been recognised as the Council was awarded runner up in the Laurie Bunn Road Safety Award 2012 for outstanding achievement in road safety education, training and publicity.

3. Performance Review

Statistics

Standard designated categories of injuries and road user within the road safety field allow effective comparisons between different time periods and locations.

The latest collision data available covers the 2013 calendar year which is shown in detail in Table 3.1 and Maps 3.1 to 3.5. Collision data is only released by the Metropolitan Police and TfL after a time lag of several months. This is to enable verification and to allow for confidentiality that may be needed if legal proceedings have to be taken. However, if data is required for specific sites urgently exceptions can be made. Statistics are also shown for previous years dating back to 2000 where available.

In LB Ealing there were 1150 road casualties in 2013, with 81 that were killed or seriously injured. Table 3.1 shows the breakdown of these casualties by road user and severity.

Table 3.1 Casualties by type and severity in Ealing 2013

| Severity | Total | Pedestrians | Cyclists | Child |
|-----------------------|-------|-------------|----------|-------|
| Fatal | 4* | 4 | 0 | 1 |
| Serious | 77 | 27 | 9 | 9 |
| Slight | 1,069 | 181 | 101 | 74 |
| All Casualties | 1,150 | 212 | 110 | 84 |

* All four fatal casualties were pedestrians, one of which was a child

Table 3.2 shows the corresponding figures for 2012. The slight increases in some severity categories of casualties since 2012 demonstrate that the figures can fluctuate slightly due to the sometimes random nature of collisions. However, this is against a background of falling casualties over recent years as shown below and under 'Trends' and in Graphs 3.1 to 3.7.

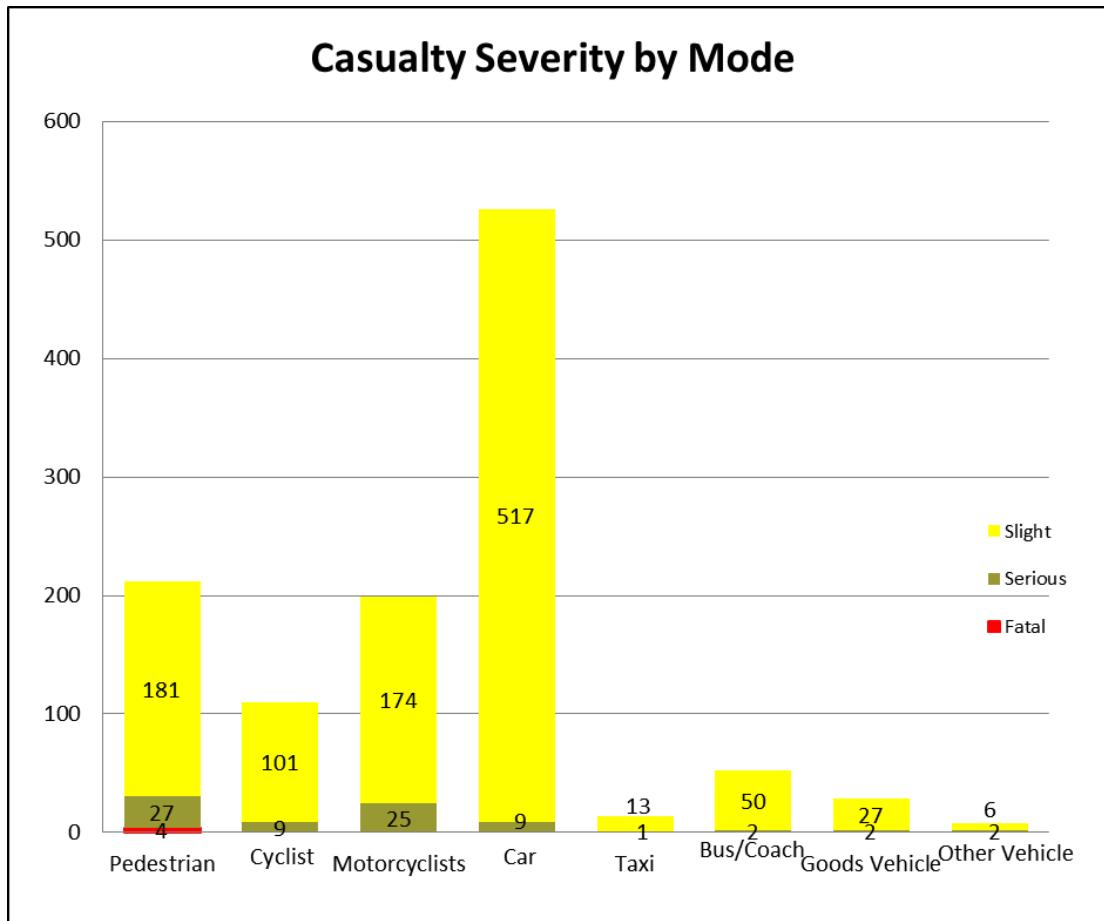
Table 3.2 Casualties by type and severity in Ealing 2012

| Severity | Total | Pedestrians | Cyclists | Child |
|-----------------------|-------|-------------|----------|-------|
| Fatal | 8 | 5 | 1 | 0 |
| Serious | 80 | 24 | 7 | 7 |
| Slight | 1,076 | 143 | 101 | 67 |
| All Casualties | 1,164 | 172 | 109 | 74 |

Total road casualty figures for 2011 and 2010 show totals of 984 and 1,053 casualties (all severities) respectively.

It should be remembered that the number of collisions is different to the number of casualties. For example, in one collision there can be multiple casualties, if more than one person is injured in the collision.

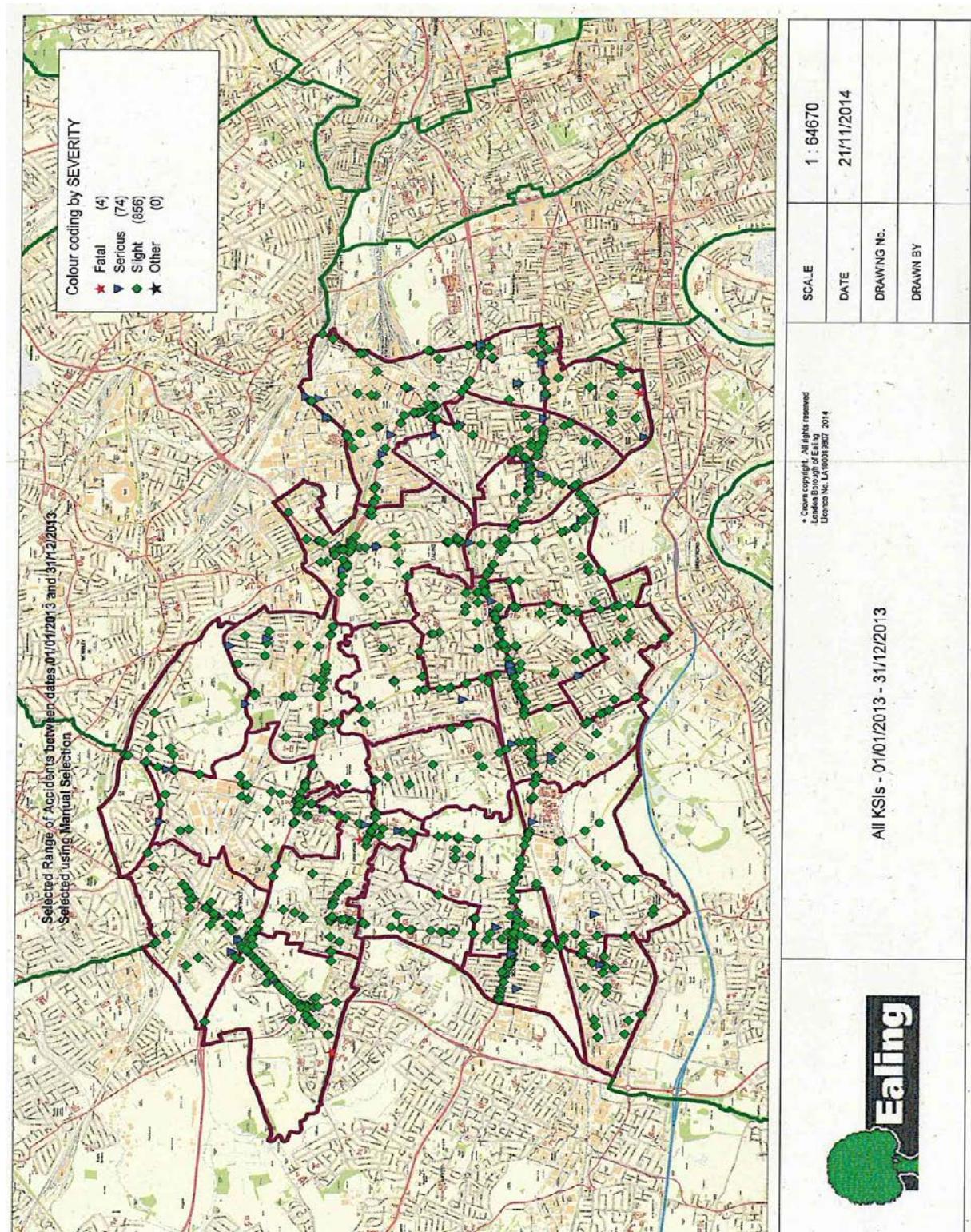
Graph 3.1



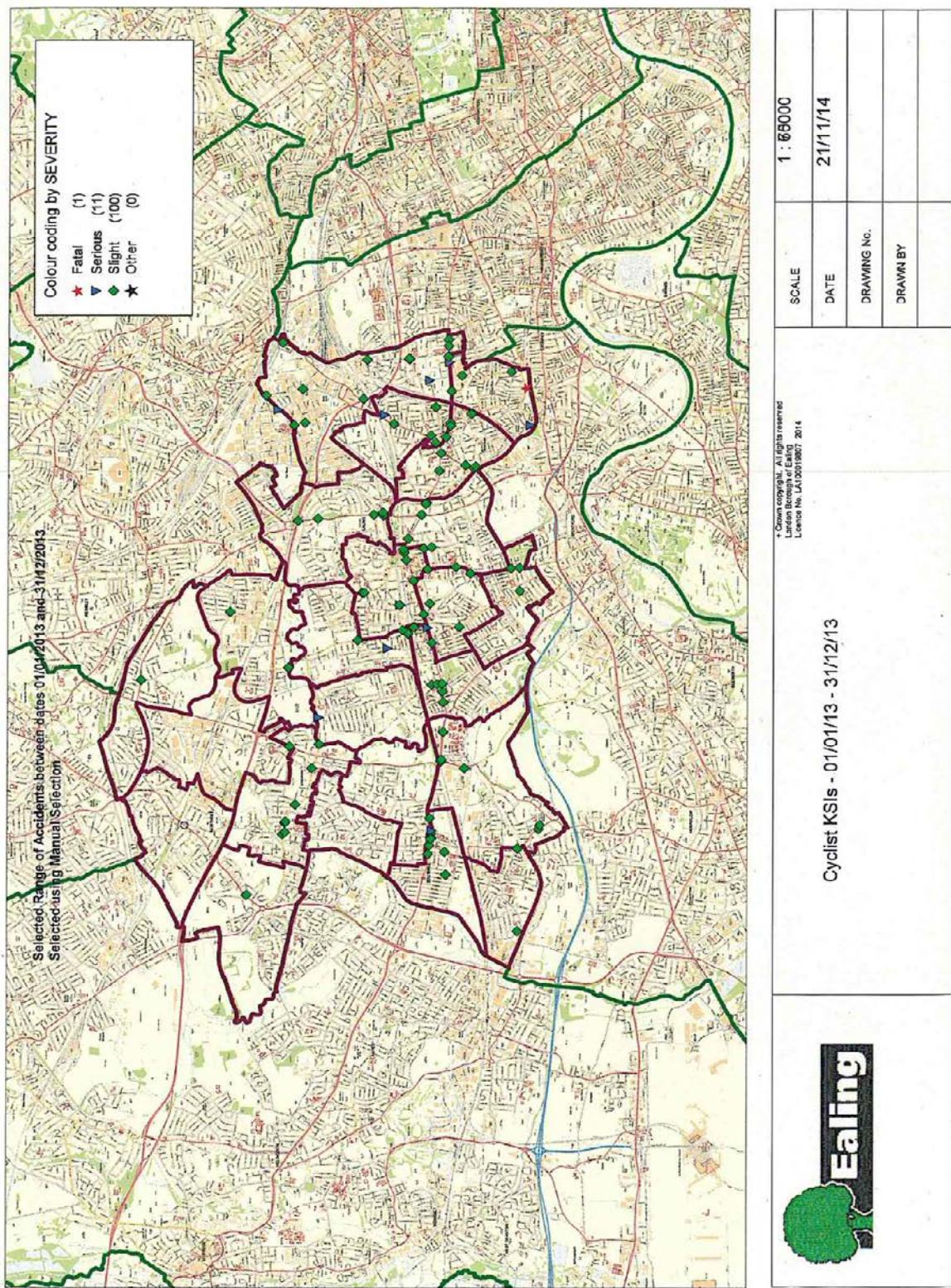
Graph 3.1 shows how road casualties in 2013 were distributed in terms of transport mode. All four fatalities were pedestrians, whilst motorcyclists and pedestrians each accounted for around a third of serious injuries. Cyclists had as many serious injuries as car occupants (nine) despite accounting for around 3% of journeys compared to 42%. Due to their higher proportion of KSI injuries these modes are considered vulnerable road users, although collision analysis tends to show a motor vehicle was usually the cause. Cars account for approximately half of all slight injuries which is more consistent with the share of this particular mode.

Maps 3.1 to 3.4 show the locations of collisions across the borough for the following types of collisions: all collisions, cycle collisions motorcycle collisions and people over 65 years of age.

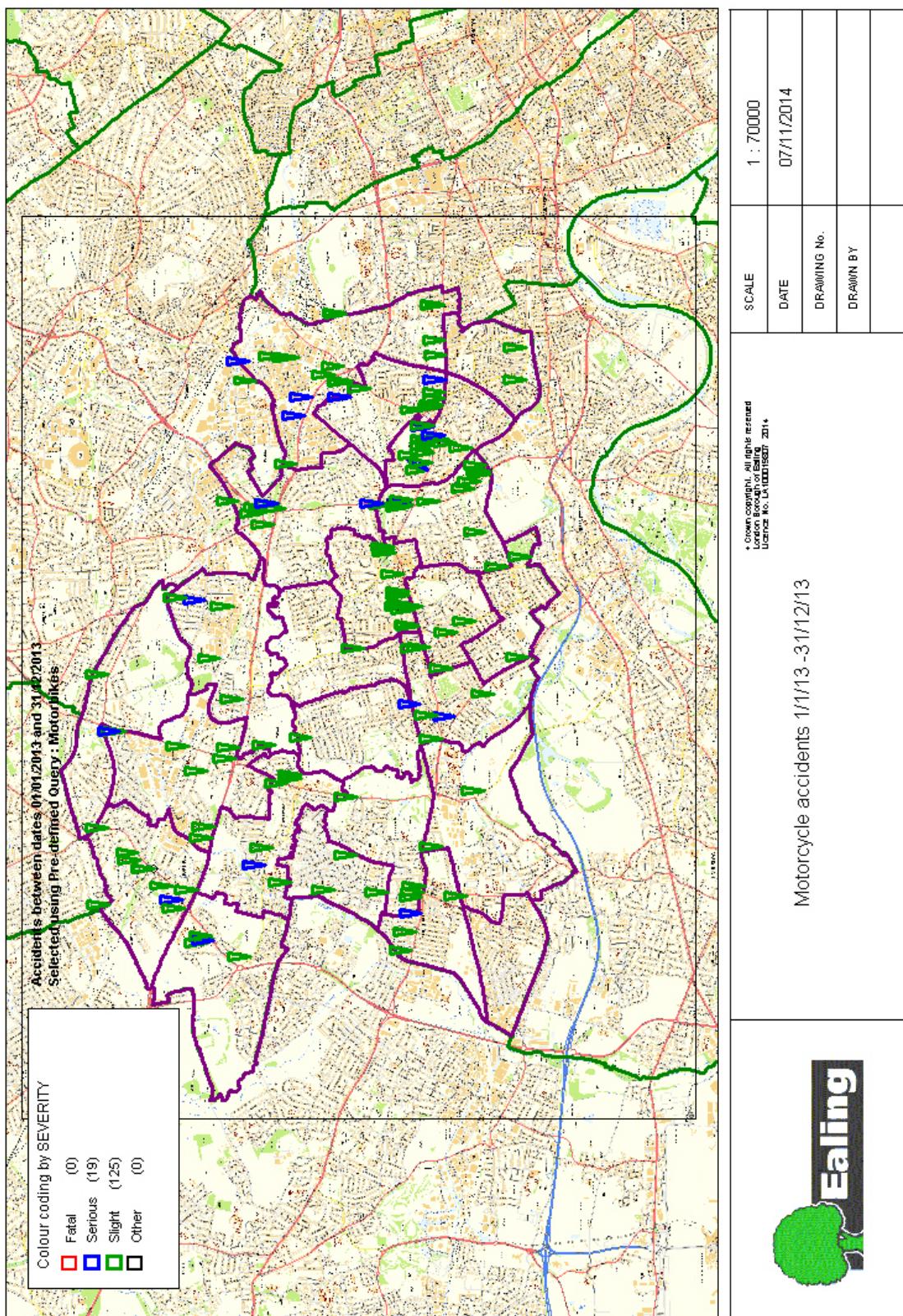
Map 3.1 All Collisions 2013



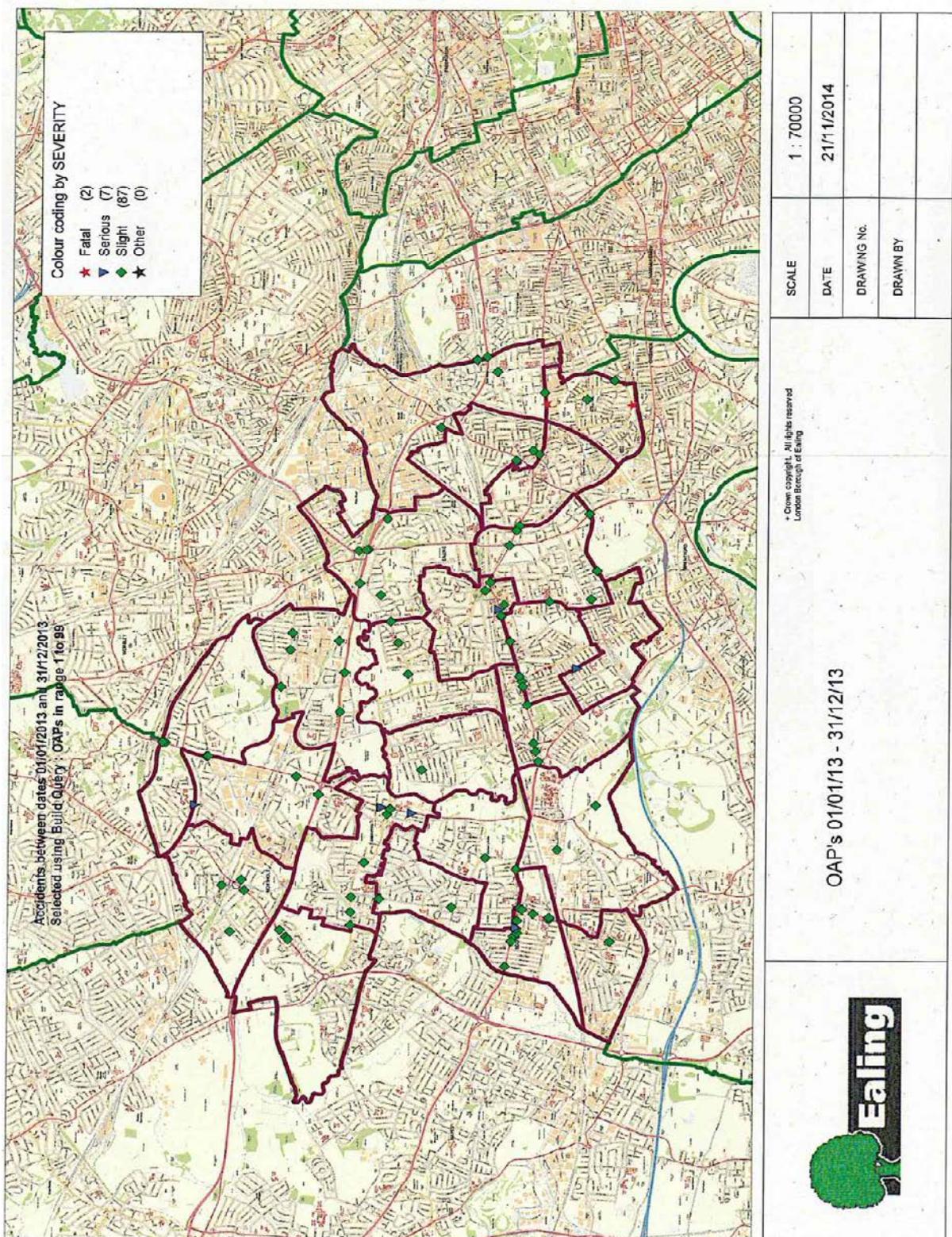
Map 3.2 Cyclist Collisions 2013



Map 3.3 Motorcycle Collisions 2013



Map 3.4 Persons over 65 Collisions 2013



Trends

Ealing Council's performance in road safety has dramatically improved in recent years, with casualties down from 349 killed or seriously injured (KSI) in 1996 to 218 in 2001 and down again to 81 KSIs in 2013.

For all Casualties Killed or Seriously Injured, see Graph 3.2.

The number of killed or seriously injured (KSI) casualties in Ealing reached its lowest level with 66 casualties recorded in 2011. Whilst there was an increase to 88 casualties in 2012 (before a fall to 81 casualties in 2013) this figure is still less than two-thirds of the 2007 level (137 casualties) and under a quarter of the 1996 level (349 casualties).

The three-year rolling average figure shows a clear downward trend from 132.3 casualties for 2006-2008 three-year average to 78 casualties for 2011-2013, meeting the Mayor of London's new target for 2020 early.

For all Casualties Slightly Injured, see Graph 3.3.

Numbers of slightly injured casualties in Ealing saw an increase from 918 casualties in 2011 to 1,076 in 2012 before a fall to 1,069 in 2013. However, this represents less than two-thirds of the 2002 level (1,649 casualties).

For pedestrians Killed or Seriously Injured, see Graph 3.4.

There were 31 pedestrian KSIs in 2013 and this is around two-thirds of the 2008 level of 52 casualties. Despite small increases from 2011 (26 casualties), this is a clear downward trend shown by the reduction from 48.7 casualties 2007-2009 to the 2011-2013 average of 28.7 casualties.

For cyclists Killed or Seriously Injured, see Graph 3.5.

Cyclist KSIs fell from 16 casualties in 2008 to the lowest level of eight casualties in 2012. The trend over recent years has been for casualties to fluctuate here, due to the low numbers involved and 2013 saw nine casualties. However, the three-year average figure has fallen from 13.3 casualties for 2008-2010 to nine for 2011-2013 despite the recent increase popularity of cycling.

It is important to note that as the numbers of people cycling increase, potentially the number of casualties will also increase. Particular attention needs to be paid to the way in which cyclists are susceptible to incidents caused by drivers of motor vehicles.

For children Killed or Seriously Injured, see Graph 3.6.

Child KSI casualties reached their lowest level with seven casualties in 2012 but unfortunately increased in 2013 to 10 casualties. However, the casualty numbers are quite volatile and have fluctuated markedly in recent years due to the low numbers involved (falling from 13 casualties in 2008). However, there is a positive trend shown by the three-year average figure recently, particularly from 11 casualties for 2008-2010 to eight for 2011-2013.

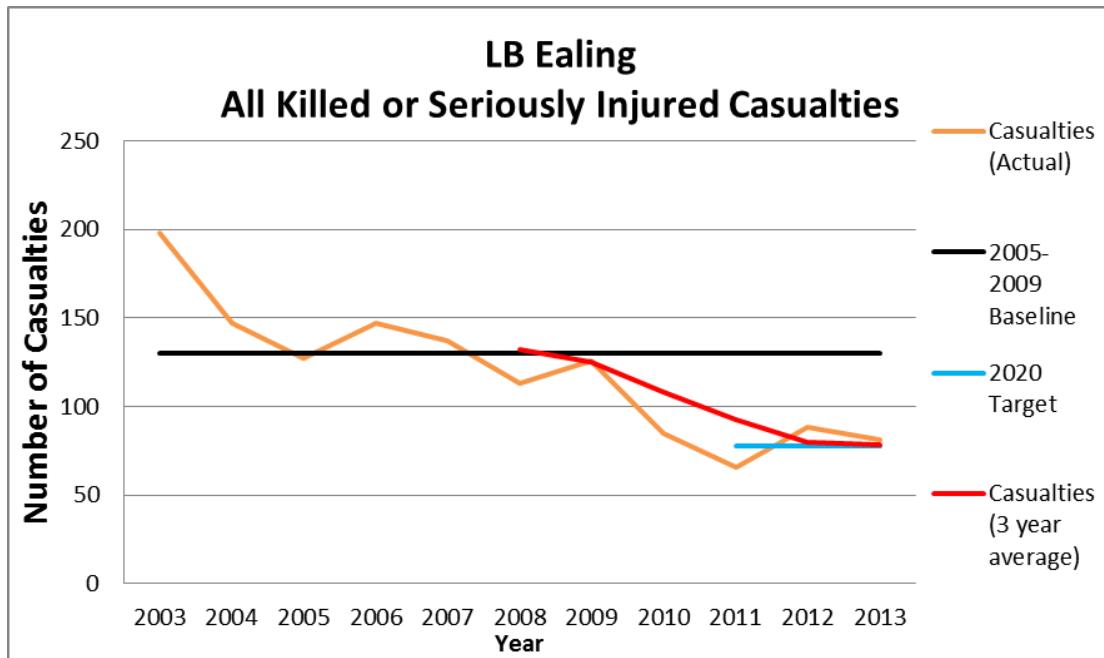
For motorcyclists Killed or Seriously Injured, see Graph 3.7.

Motorcyclist (or powered two-wheeler) KSI casualties have been variable, due to the low numbers involved, with only 14 casualties in 2010 down from 34 casualties in 2009 and 25 KSIs in 2013, but the three-year average trend has generally been downwards from 29.3 casualties for 2007-2009 to 21 for 2011-2013 .

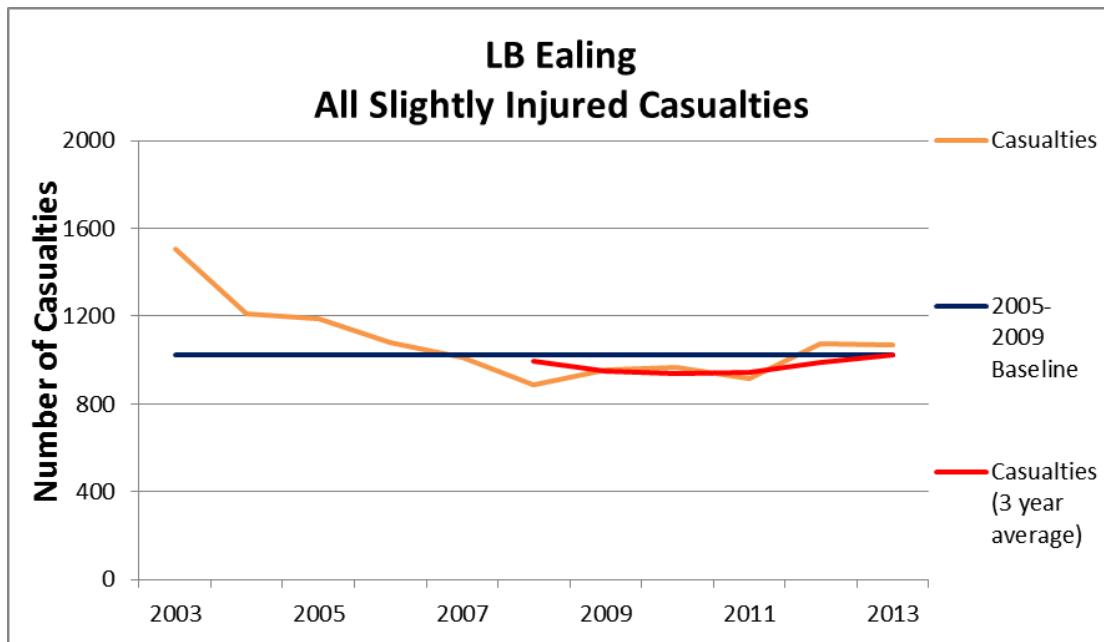
Previously the Council achieved the Government and Mayor of London's 2010 road casualty reduction targets ahead of schedule by 2007. Between 2007 to the end of 2010 the following additional reductions were achieved:

- A 38% decrease in the total killed or seriously injured casualties
- A 47% decrease in killed or seriously injured pedestrians
- A 51.7% decrease in powered two wheeler casualties

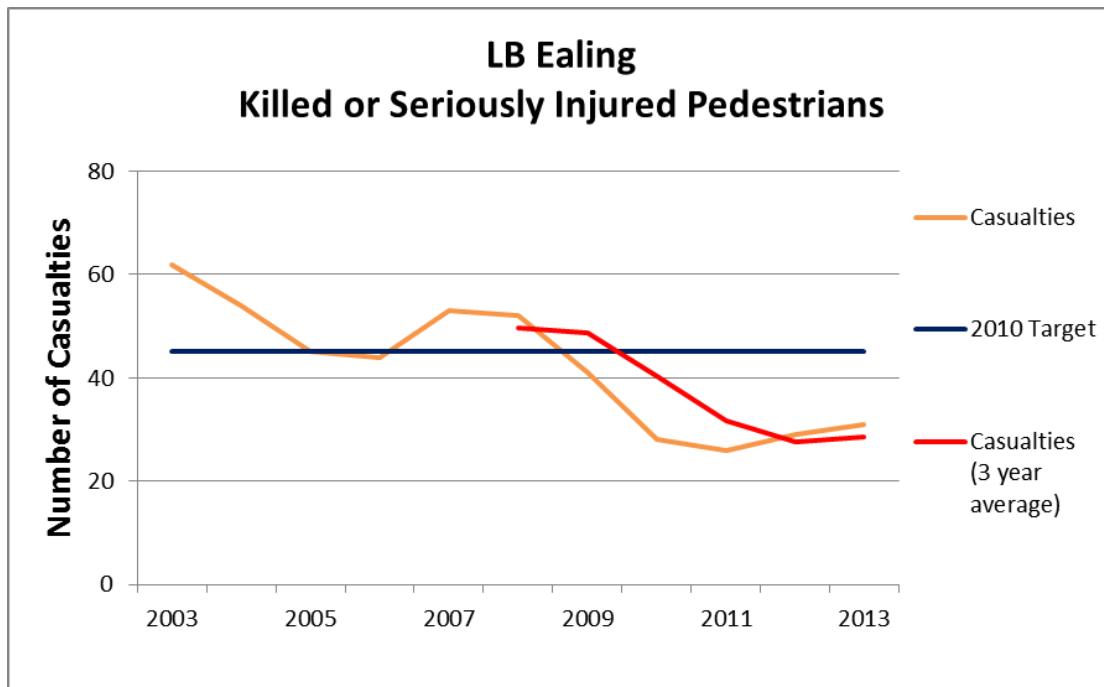
Graph 3.2



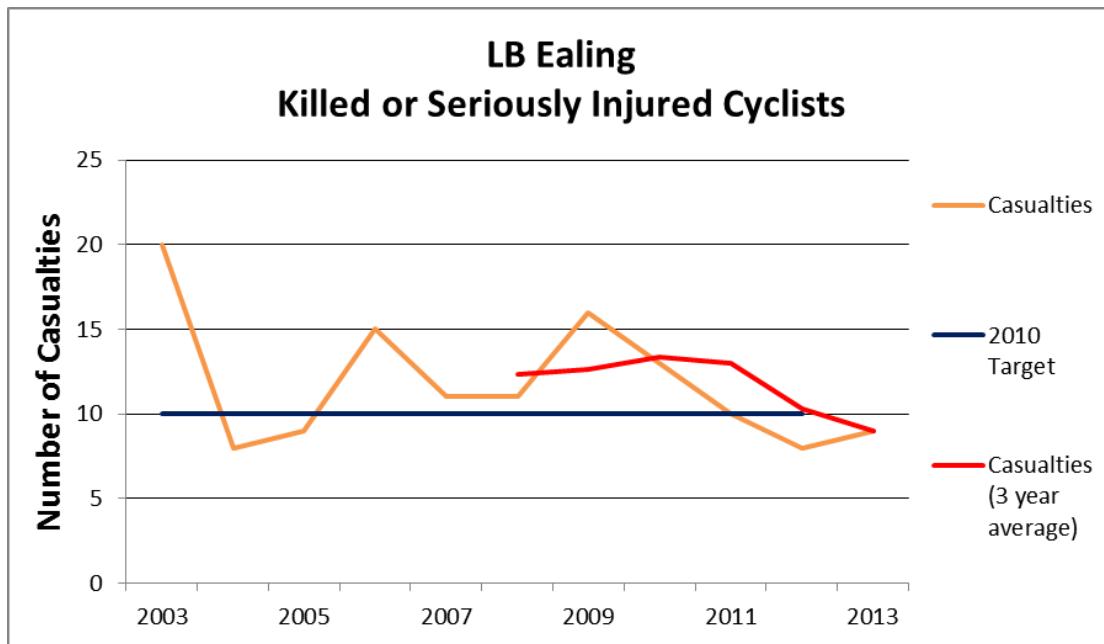
Graph 3.3



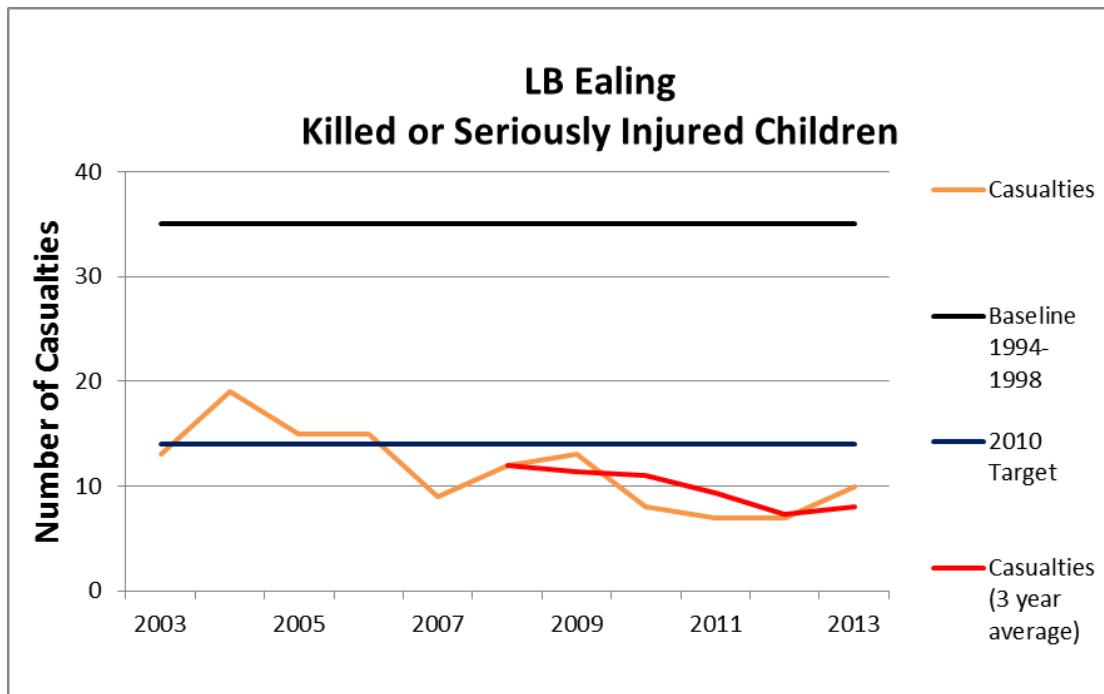
Graph 3.4



Graph 3.5



Graph 3.6



Graph 3.7

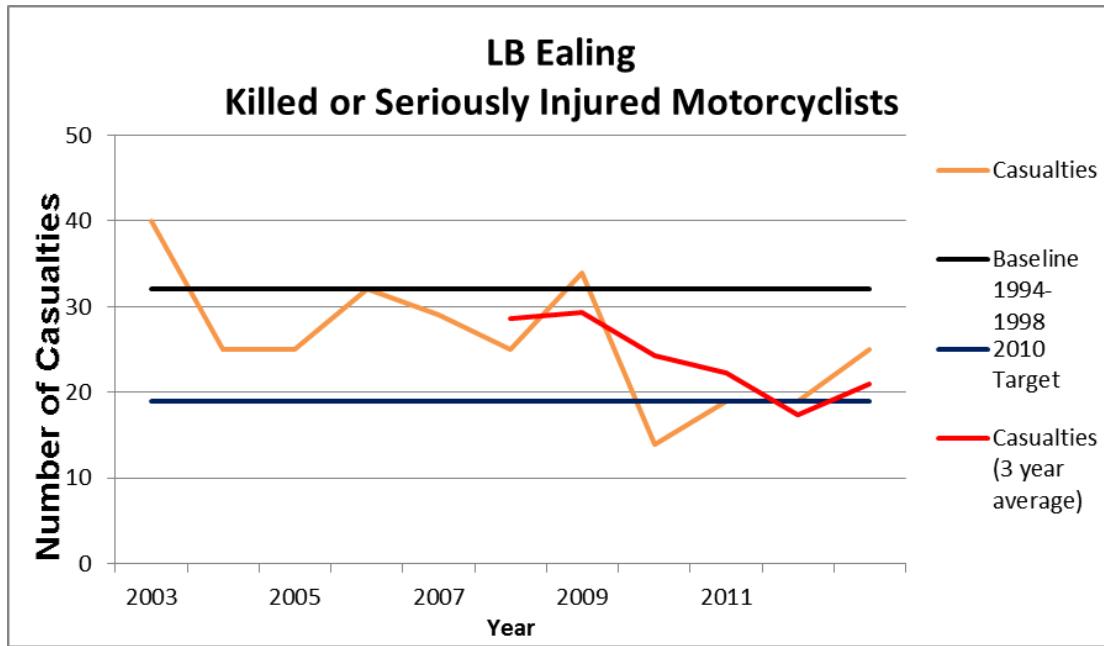


Table 3.3 Road casualties over 65 years of age

| Severity | 2009 | 2010 | 2011 | 2012 | 2013 |
|-----------------------|------------|------------|------------|------------|-----------|
| Fatal | 3 | 3 | 3 | 3 | 2 |
| Serious | 11 | 8 | 7 | 12 | 7 |
| Slight | 94 | 90 | 114 | 118 | 87 |
| All Casualties | 108 | 101 | 125 | 133 | 96 |

Road casualties over 65 years of age showed a fall in 2013 to similar levels seen in 2009 and 2010 are at relatively stable levels in terms of KSIs (between 11 and 12 casualties for the three-year averages). Despite similar total casualties for both child and over 65 casualties, the latter category tends to have more KSIs due to increased vulnerability to injury and death in advanced age. The numbers of casualties in this category may rise in future in line with the expected increase in the average age of the population.

Local Implementation Plan Targets 2011-14 Review

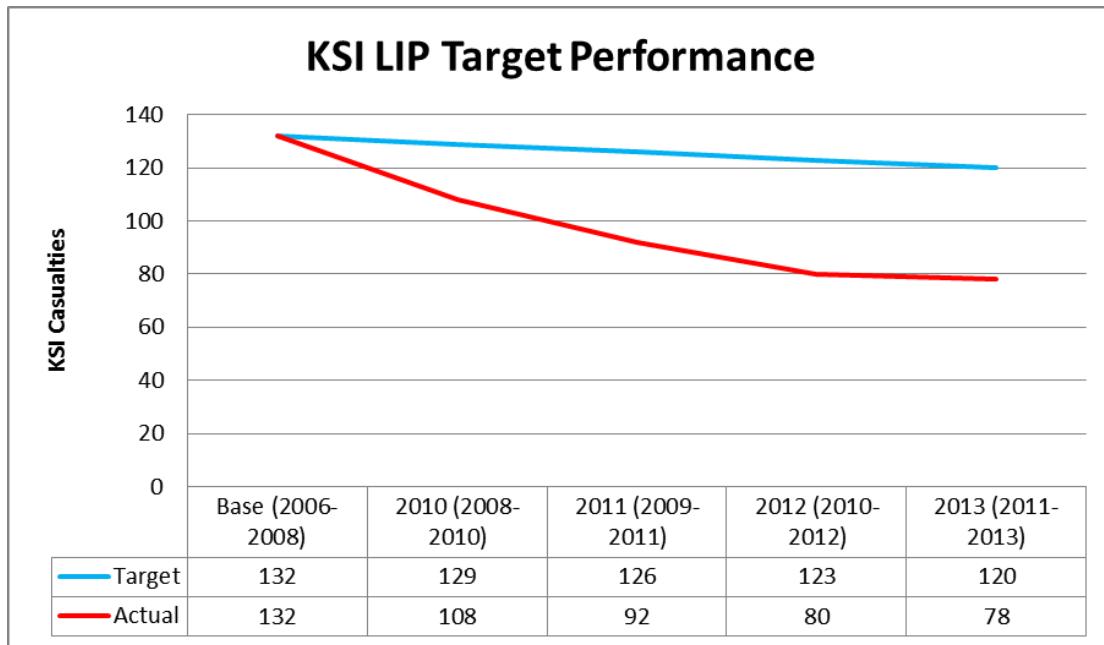
Ealing has exceeded its LIP 2011-14 road safety targets for total KSIs and Cyclist rate-based target. In terms of total KSIs, the recorded casualties fell to just two-thirds of the target level, whilst for cyclists, the possibility of being a KSI casualty is lower than half the target rate being only one casualty for around 700,000 trips (or once every 958 years if two trips a day are made, on average).

However, the number of slight casualties initially dropped but since 2012 has crept above the target level slightly by around 9%.

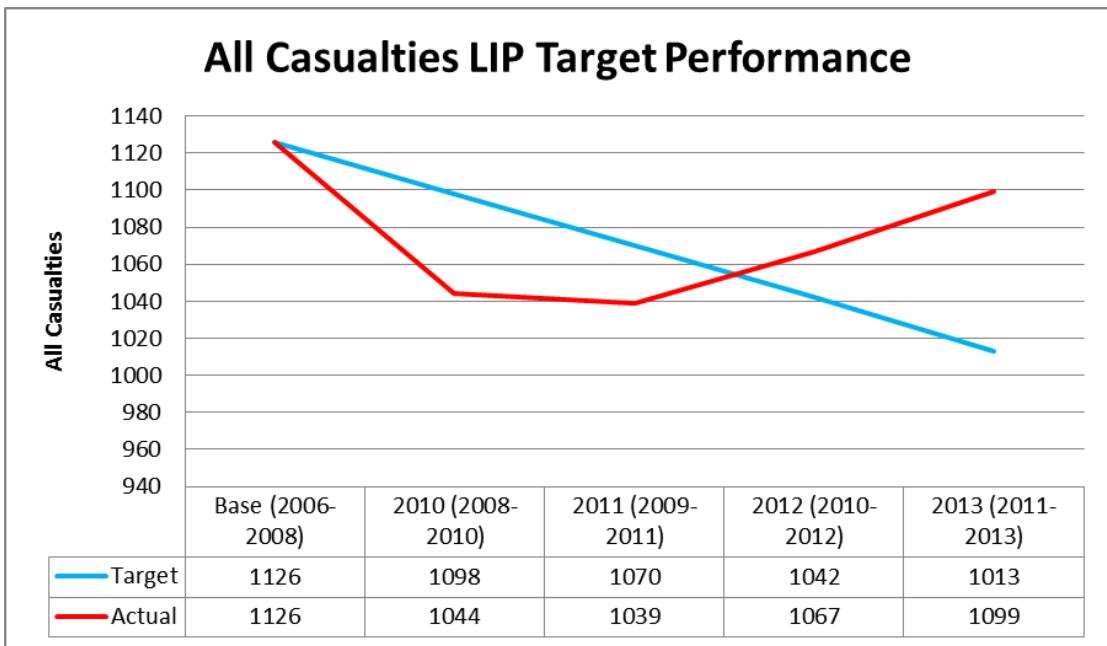
See Graphs 3.8, 3.9 and 3.10.

Note figures are three-year rolling averages to give more statistically significant results.

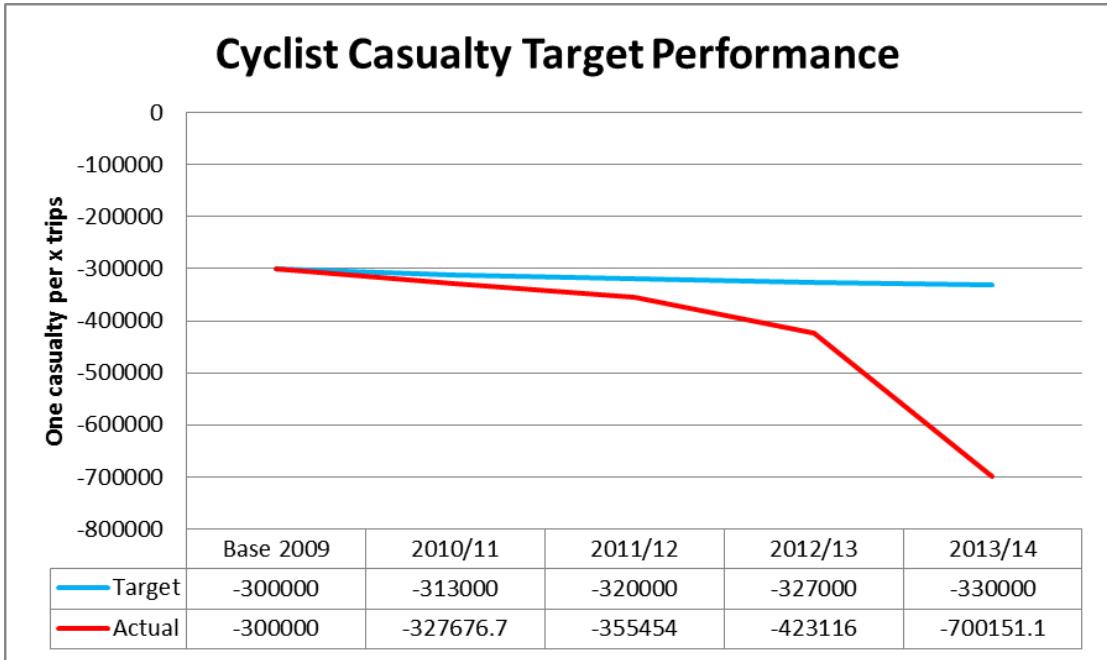
Graph 3.8



Graph 3.9



Graph 3.10



Local Implementation Plan Targets 2014-17

As a result of Ealing's excellent performance against the KSI and cycle casualty targets, these have been revised with more challenging targets. The new KSI target is 75 casualties per year by 2016 and one cycle casualty per 480,000 trips.

Collision Analysis

Collision data feeds into the feasibility and preliminary design process carried out by the Council in preparing schemes or measures to present to councillors and the public. This includes reviewing the causes of collisions and any contributory effects recorded by the police.

Table 3.4 illustrates the sites with the highest rate of collision per kilometre. This analysis compares sites on an equal basis irrespective of the size of road layout. This means that the actual risk of a collision occurring is more accurately portrayed.

The borough's road network is classified into two types of road; the Transport for London Road Network (TLRN) and Ealing's borough roads. Ealing Council is responsible for all roads that are not TLRN roads, therefore the Council is only able to deliver collision reduction schemes on borough roads. Although TfL Streets are responsible for investigating and implementing collision reduction on the TLRN, the Council can lobby for improvements on behalf of residents. For example, the Council was successful in obtaining extra crash barriers installed on the A40 Western Avenue following a number of vehicles colliding with local properties.

Map 3.1 and Table 3.4 demonstrate that there are a high number of collisions on the TLRN and within the vicinities of Ealing Broadway, Southall, Acton, West Ealing, Greenford and Northolt town centres. This can be explained by the higher numbers of vehicle, pedestrian and cyclist traffic in these areas, plus the movement conflicts at significant junctions. Nevertheless, Ealing Council has tackled these problems with the following projects:

- Ealing Broadway – Corridors 1d, 2 and Ealing Broadway Interchange Major Scheme
- Southall – Corridors 1b (Southall Broadway Boulevard) and 5,
- Acton – Corridors 1a and 3
- West Ealing – Corridor 1c
- Greenford – Corridor 8
- Northolt – Neighbourhood 14 and Corridor 11

(see Maps 5.1 and 5.2)

Sites of collisions are identified either by 'node' or 'link'. A node is a junction of two or more roads where collisions generally become concentrated. Junctions vary in size, complexity and method of control (e.g. traffic signals, roundabout or give way). A link is a section of road between two given points. Links can vary in length and can be several kilometres long. Collisions off the node/link network are classified as 'cell' collisions, but due to the minor nature of these roads there are overlaying clusters of collisions.

Table 3.4 Sites with most casualties per KM 2013

| Rank | Node (from – to) | Section of Road | Highway Authority | Number of Casualties per KM |
|------|---------------------|--|-------------------|-----------------------------|
| 1 | 179-665 | A40 Western Avenue Greenford Roundabout (west), Greenford | TLRN | 52.1 |
| 2 | 166-669 | Horn Lane, Acton | LB Ealing | 42.9 |
| 3 | 39-751 | The Broadway to Bankside, Southall | LB Ealing | 39 |
| 4 | 174-661 | Western avenue slip to west of hanger lane gyratory | TLRN | 38.1 |
| 5 | 177-666 | A40 western avenue, Target Roundabout, Northolt | TLRN | 36.7 |
| 6 | 179-664 | A40 Western Avenue, Greenford Roundabout (east), Greenford | TLRN | 29 |
| 7 | 53-61 | Uxbridge Road, West Ealing to Ealing Broadway | LB Ealing | 28.7 |
| 8 | 161-204 | A406 Hanger Lane, Hanger Lane Gyratory (south) | TLRN | 26.7 |
| 9 | 63-66 | Uxbridge Road (Haven Green to Gunnersbury Ave), Ealing | LB Ealing | 24.3 |
| 10 | 137-177 | A312 Church Road, Northolt | TLRN | 21.2 |

Relative Performance/Comparisons

Ealing achieved one of the best reductions of KSIs of all London boroughs with a 32% reduction for 2005-2009 to 2012 according to the latest TfL data available. This compares favourably to a 17% reduction average across Greater London (Table 3.5).

The level of KSIs means Ealing was sixteenth out of thirty-three boroughs (88 casualties) with Westminster highest with 193 casualties and Kingston upon Thames lowest with 34 casualties for 2012.

It should be noted that Ealing has the third largest residential population together with a significant number of trip generators such as employers and transport interchanges. Together with significant through routes such as the A40 and Uxbridge Road, this results in a large number of trips, especially compared to other outer London boroughs³. For instance, between 2011/12 and 2012/13 LB Ealing had 664,000 trips per day (all modes except rail and Underground) compared to only 391,000 trips per day in Harrow⁴. Accordingly with a higher number of trips (motorised and non-motorised) a proportionately higher level of traffic collisions can be expected in Ealing than with a borough with fewer trips.

³ Local Implementation Plan 2011-14, LB Ealing, 2011

⁴ Travel in London Report 6, TfL, 2013

Table 3.5 Road Casualty Reduction in London by Borough KSIs

| Borough | 2005-2009 average Casualties | 2005-2009 average change to 2012 year |
|-----------------------|------------------------------|---------------------------------------|
| Barking & Dagenham | 57 | -18% |
| Barnet | 145 | -23% |
| Bexley | 90 | -39% |
| Brent | 105 | -18% |
| Bromley | 141 | -36% |
| Camden | 125 | -9% |
| City of London | 50 | 16% |
| Croydon | 141 | -24% |
| Ealing | 130 | -32% |
| Enfield | 108 | -21% |
| Greenwich | 117 | -38% |
| Hackney | 127 | 16% |
| Hammersmith & Fulham | 109 | -27% |
| Haringey | 93 | 15% |
| Harrow | 58 | -21% |
| Havering | 98 | -21% |
| Hillingdon | 108 | -23% |
| Hounslow | 114 | -36% |
| Islington | 87 | 40% |
| Kensington & Chelsea | 111 | -15% |
| Kingston upon Thames | 61 | -44% |
| Lambeth | 176 | -14% |
| Lewisham | 125 | -19% |
| Merton | 65 | 0% |
| Newham | 88 | -13% |
| Redbridge | 88 | 6% |
| Richmond upon Thames | 74 | -30% |
| Southwark | 140 | -17% |
| Sutton | 70 | -40% |
| Tower Hamlets | 127 | 32% |
| Waltham Forest | 90 | -23% |
| Wandsworth | 131 | -17% |
| Westminster | 275 | -30% |
| Greater London | 3,627 | -17% |

Recognition and Awards

The road safety achievements of Ealing Council have been recognised by three different bodies. These awards recognise that the Council has successfully developed a number of policies and projects recently to continue the reduction in casualties on its roads.

Ealing Council has won the following recent awards:

- Most effective road safety, traffic management and enforcement project -Lido Junction, London Transport Awards, 2014
- Award for Cycling, Bike Swap, Modeshift National Transport Awards, 2014
- Young Professional of the Year, Maree O'Neill, School Travel Advisor, London Transport Awards 2014
- Achievement in cycling award at the National Transport Awards 2012
- Transport borough of the year at the London Transport Awards 2012
- National Rail Cycle Awards 2012, Best Local Government Scheme, Ealing Broadway Cycle Hub
- National Rail Cycle Awards 2012, London Cycle Parking Award, Ealing Broadway Cycle Hub

For Transport Borough of the Year, the London Transport Award judges noted that Ealing's high standard submission showed the comprehensive progress they are making across all key policy areas including road danger reduction, travel to school mode shift and cycling improvements'. Investment in cycling has increased fourfold over the last three years to over £700,000 annually, walking and cycling to school has increased by almost 8%, and there has been a 5% reduction in road safety casualties.

The Achievement in cycling award was presented at the National Transport Awards 2012 for the Council's Direct Support for Cycling (DSC) programme. This trains cyclists to use the roads safely and with confidence, further details are given in section 7: Cycling.

Ealing Council was also awarded runner up for the Biking Schools programme in the Achievements in cycling award, London Transport Awards, 2014 plus runner up in the Laurie Bunn Road Safety Award for Outstanding Achievement for Road Safety Education, Training and Publicity by the London Road Safety Council in 2012.

The Laurie Bunn Road Safety Award nomination demonstrated how Ealing had pioneered an innovative, combined 'road safety' and 'road danger reduction' approach to make its roads safer.

4. Delivery

Partnership Working

The 'Exchanging Places' initiative is run by the Metropolitan Police to address a recognised collision problem between cyclists and heavy goods vehicles (HGVs). Further details are given on page 29.

Ealing Council has signed up to the European Road Safety Charter and the Road Danger Reduction Charter.

LB Ealing frequently contributes to Department for Transport and TfL consultations. An example was the proposed changes to the treatment of penalties for careless driving and other motoring offences in summer 2012.

The Council regularly collaborates with partner organisations in the area of school travel such as the 'Safe Drive, Stay Alive' campaign with Hounslow Council. Full details are given in section 6: Schools.

Roles and responsibilities

The Ealing Road Safety Plan recognises the valuable contributions of the many organisations and processes that contribute to road casualty reduction in London.

These include the following:

- The Metropolitan Police Service (MPS) are committed to reducing road casualties in accordance with the Association of Chief Police Officers 'Road Policing Strategy'. The police have wide-ranging road safety responsibilities including the enforcement of speed limits and other traffic legislation against anti-social road users, collecting and investigating collision data; working with highway authorities to provide engineering solutions; and helping to provide educational interventions
- London boroughs (such as Ealing) are responsible for roads on which over two thirds of road collisions occur and where local road safety officers and school teachers have a key role in educating children and other road users to help avoid collisions.
- TfL, who provide transport capital funding for projects, road safety research and publicity campaigns. They are also the Highway Authority responsible for upgrades, maintenance and enforcement for the TfL Road Network (TLRN) i.e. red routes including the A40, A406 and A312.
- Central Government, which sets policy at a national level, enacts legislation that has an effect on the safety of the roads through the Department for Transport (DfT) and deliver services through organisations such as the Highways Agency, Driving Standards Agency and Driver and Vehicle Licensing Agency.
- Health providers including hospitals, Health and Well Being Boards and health authorities, who provide information for parents and carers to help protect children below school age from collisions and have a shared objective to reduce avoidable deaths and injuries arising from traffic collisions.

- A range of other organisations with a role to play in reducing collisions and casualties. These include London Councils, road safety charities, the Royal Society for the Prevention of Accidents, the insurance industry, employers, vehicle manufacturers, emergency services, the Health and Safety Executive, the Parliamentary Advisory Council for Transport Safety, user groups, academics, the voluntary sector and the bus operators

The Council directly employs its own parking enforcement staff and also utilises cameras. The presence of civil enforcement officers (also known as parking attendants) is a deterrent to dangerous parking. Dangerous parking at junctions and bends can impair visibility and may lead to road collisions as people step out between vehicles with only a limited visibility of traffic. Well-enforced parking regulations also increase the perception of an effectively policed road network.

Ealing Council has signed up to the TfL Freight Operators Recognition Scheme (FORS) and requires that its contractors do the same. The scheme recognises positive steps organisations are taking to improve the safety of their vehicles and their drivers, such as cyclist awareness training, as well as activities to reduce the environmental impact of their operations.

The Council has trained over 100 goods vehicle drivers from Murrill Construction and Enterprise contractors during 2013/14. This programme is continuing in 2014/15 and will be extended to other freight operators.

Exchanging Places

The Metropolitan Police is working with Transport for London, London Boroughs, Brake (road safety charity), road haulage and bus companies to raise awareness among lorry drivers and cyclists of the difficulties faced by both groups when using London's roads.

Exchanging Places events allow cyclists to experience an HGV driver's view of the road and get a better understanding of the blind spots around the vehicle, especially towards cyclists on the nearside and directly in front of the vehicle.

The purpose is to raise awareness of the dangers of collisions between cyclists and large vehicles. Exchanging Places is an award winning scheme that has been acknowledged as an effective safety demonstration for highlighting the dangers that cyclists face when they travel in close proximity to large vehicles.

As well as a HGV or bus being present, there will normally be cycle security marking and cycling information provided.

Council capital transport projects

Transport capital projects within the Ealing LIP 2014-17 are now defined and funded using the Corridors and Neighbourhoods (CANs) method. Further details of CANs projects are given in section 5, Corridors and Neighbourhoods.

Local ward forums

Local road safety issues can be raised through the Council's local ward forums.

Led by ward councillors, the 23 forums feature joint problem solving on local concerns, including discussions on issues such as community safety, traffic and transport schemes, parks and street improvements.

With an annual budget of £37,500 (consisting of £30,000 capital and £7,500 revenue funding) each forum combines the collective local knowledge of residents and ward councillors to recommend local improvement projects to benefit their ward.

Information on council services, forthcoming consultations and events that affect each ward are also provided.

Forums are open to all Ealing residents, meeting at least three times a year in informal and accessible local venues.

When a perceived, local safety issue is identified Council officers investigate. Firstly, looking at traffic casualty statistics, then speed and vehicle surveys can be funded by the ward forum. When the evidence has been collected and examined an appropriate course of action can be taken.

Local road safety issues can be reported to the Neighbourhood Governance Team either by email mywardmatters@ealing.gov.uk or telephone 020 8825 5453.

5. Corridors and Neighbourhoods

Outline

The Corridors and Neighbourhoods (CANs) approach to transport capital projects in the Ealing LIP 2014-17 is area-based and combines different types of schemes within the same location. All schemes aim to deliver benefits across a range of transport modes including walking and cycling as well as road safety. Concentrations of traffic collisions were used as one of the criteria to define the corridor and neighbourhood projects. The Council has used the CANs approach since April 2010 for planning, design and delivery of transport schemes.

The LIP 2014-17 also has projects that fall under Supporting Measures/Smarter Travel for projects that may not be tied to individual localities (such as school travel) as well as principal road maintenance.

Completed Projects 2011-2014

Map 5.1 shows the location of CANs implemented in the 2011-2014 programme. Schemes within each CAN scheme have been designed to deliver a wide variety of transport improvements holistically, including road safety, which is included in the scope of each project.

Table 5.1 lists the relevant CANs completed 2011-2014 that include road safety benefits.



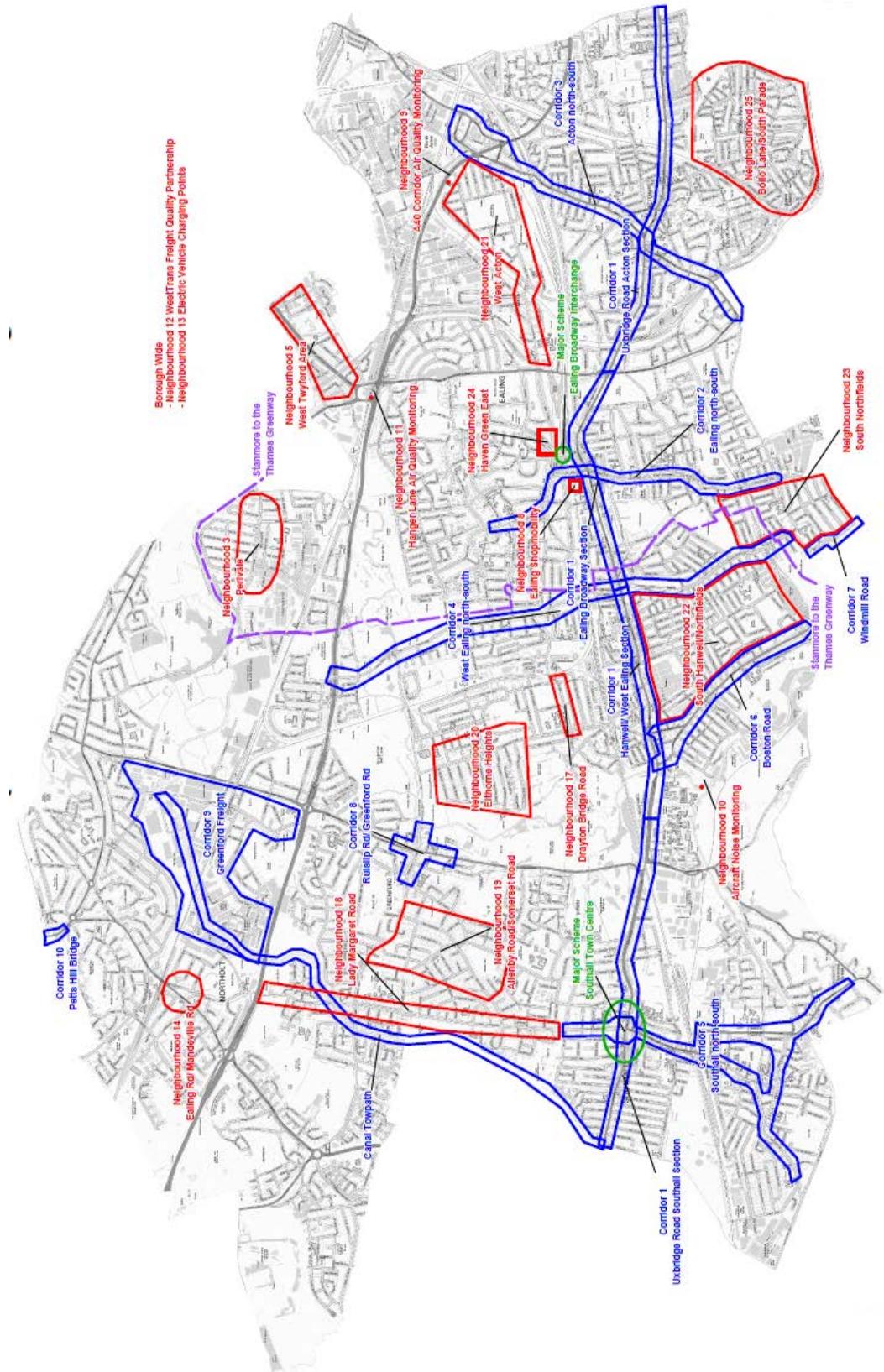
Completed pedestrian crossing phase, Corridor 1a, Acton section

Current Projects 2014-2017

CANs for the 2014-2017 programme are shown in Map 5.2. Certain larger schemes have necessitated implementation across both of the 2011-14 and 2014-17, such as Corridor 1b Uxbridge Road Southall section and Neighbourhood 25 Bollo Lane/South Parade.

Table 5.2 lists the relevant CANs for 2014-2017 that include specific road safety benefits. It is important to note that some larger CANs will be delivered over two or more financial years.

Map 5.1 Corridors and Neighbourhoods 2011-2014



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Table 5.1 LB Ealing Corridor and Neighbourhood Projects 2011-2014

| CANS Description | Road Safety Elements of Proposals | Programmed Completion |
|---|---|--|
| Corridor 1a - Uxbridge Road corridor (Acton section), phase 2 | Uxbridge Road/Gunnersbury Lane and Uxbridge Road/Steyne Road junctions improvements The Vale Acton pre-signals bus priority and pedestrian improvements Uxbridge Road/Gunnersbury Lane - Pedestrian crossing improvements urban realm improvements incorporating widening of footways, raised surfaces, new cycle lanes, traffic smoothing measures Pedestrian/cycle crossing improvements | Partially completed summer 2012 Fully completed summer 2014 |
| Corridor 1b - Uxbridge Road (Southall Section) | Public realm scheme to improve road safety and footway capacity to accommodate pedestrians | Under construction 2013/14/15 |
| Corridor 2 – Ealing north-south corridor | South Ealing Road and St Mary's Road – Streetscape improvements including raised zebra crossings | Completed summer 2012 |
| Corridor 3 – Acton north-south corridor, phases 1 and 2 | Acton Town station area and Gunnersbury Lane/Bollo Lane junction - mini-roundabout permanent works, improve accessibility to station, pedestrian, cycling, buses and public realm improvements. Horn Lane/Friary Road – junction review and bus/rail interchange improvements Horn Lane/Leamington Park – pedestrian improvements | Completed summer 014 |
| Corridor 4 – West Ealing north-south corridor | "Lido" Uxbridge Road/Northfield Avenue/Drayton Green Road and Mattock Lane - junction and pedestrian crossing improvements Wellington Road and Julian Road - 20mph zone | Completed 2012 |

| CANs Description | Road Safety Elements of Proposals | Programmed Completion |
|--|--|---|
| Corridor 6 – Boston Road Corridor | Church Road/St Georges Road/Uxbridge Road – raised tables Lower Boston Road – pedestrian improvements outside St Marks school Boston Road north of station – improve parking management, urban realm, new zebra crossing on raised table, speed management | Completed summer 2012 |
| Corridor 8 – Greenford Road/Ruislip Road | Pedestrian crossing improvements on Greenford Road | Completed spring 2014 |
| Neighbourhood 3 - Perivale | Federal Road and Lily Gardens raised tables and cycling improvements | Completed First phase 2012 Second phase 2013 |
| Neighbourhood 4 - Brentham Area (Hanger Hill) | Extension of 20 mph Zone westwards Meadvale Road – raised table, safety and urban realm improvements | Completed 2012 |
| Neighbourhood 5 - West Twyford Area (Hanger Hill) Study | Install 20mph zone in conjunction with LB Brent | Completed January 2013 |
| Neighbourhood 6 - Northala Fields Area (Northolt) study and implementation | Signalised Toucan and informal pedestrian crossings Pedestrian crossing improvements at junctions | Completed November 2012 |
| Neighbourhood 14 - Ealing Road/Mandeville junction improvements | Road safety improvements at junction | Completed summer 2012 |

| CANs Description | Road Safety Elements of Projects | Programmed Completion |
|---|---|-------------------------|
| Neighbourhood 16 – Kingshill Avenue/Townson Avenue | Implementation of road safety and speed reduction measures | Completed summer 2011 |
| Neighbourhood 18 - Lady Margaret Road | Raised zebra crossing, school safety zone and traffic calming | Completed late 2012 |
| Neighbourhood 19 - Allenby Road/Somerset Road | Improve existing 20mph zone, raised table enhancements with additional signs and markings to reinforce existing 20 mph speed limit | Completed summer 2012 |
| Neighbourhood 20 - Elthorne Heights | 20mph zone with side road entry treatments and traffic calming | Completed August 2012 |
| Neighbourhood 21 - West Action/Queens Drive/Noel Road | New raised zebra crossing in Queen's Drive and junction improvements at Queens Drive/Princes Gardens New raised tables in Noel Road at the entrances to North Acton playing fields | Completed April 2013 |
| Neighbourhood 22 South Hanwell/Northfields | Investigation and provision of 20 mph zones, other traffic calming and freight traffic reduction measures | Completed summer 2012 |
| Neighbourhood 25 Bollo Lane/South Parade | Measures (currently under investigation) to address road safety, speeding and vehicle rat-running issues. | Under construction 2014 |

Map 5.2 Corridors and Neighbourhoods 2014-2017

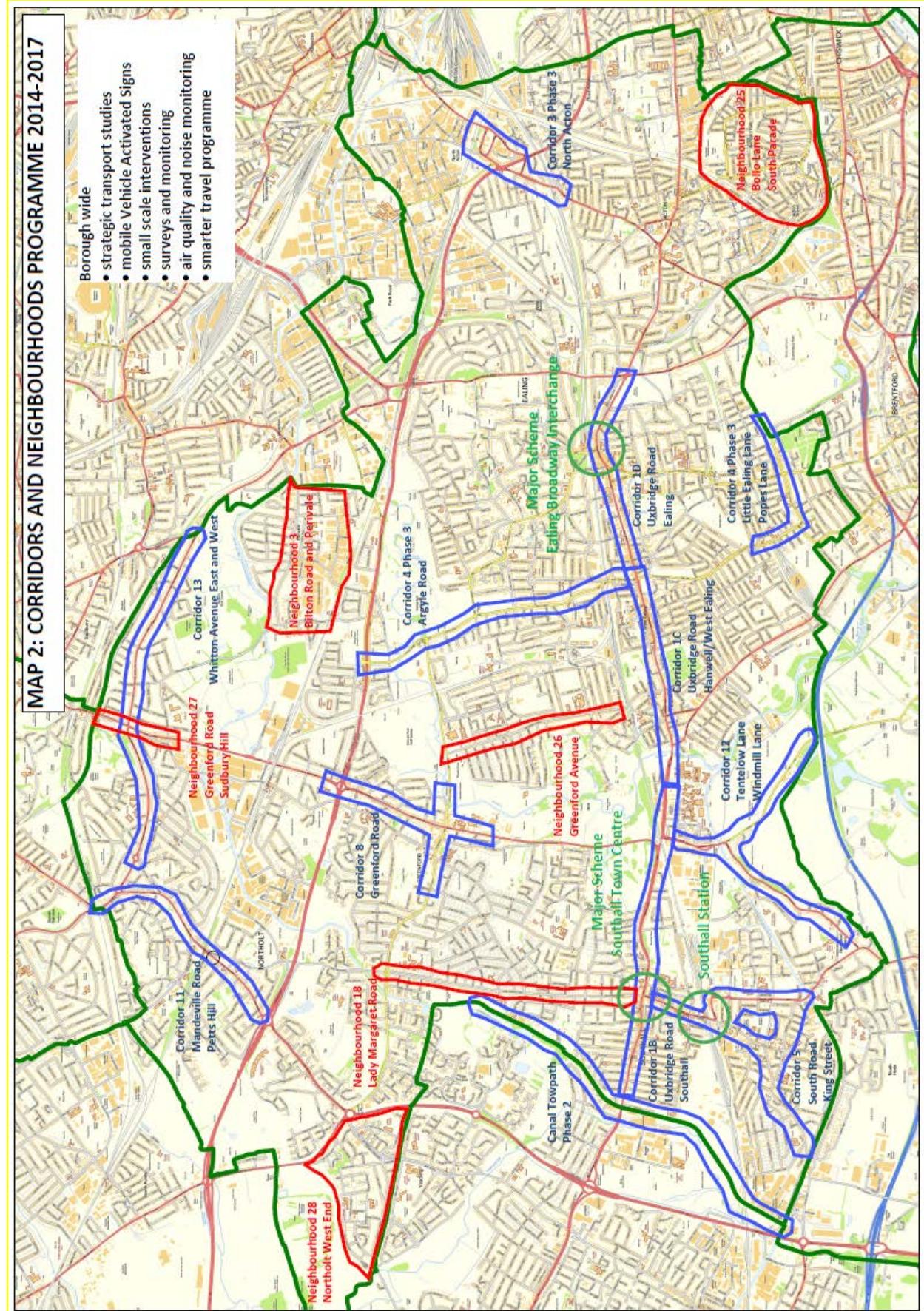


Table 5.2 LB Ealing Corridor and Neighbourhood Projects 2014-2017

| CANs Description | Road Safety Elements of Proposals |
|---|---|
| Corridor 1b - Uxbridge Road Southall Section Phase 2 | Completion of current Southall Broadway Boulevard scheme started in 2013/14 including multi-modal and urban realm improvements for road safety, walking (Legible London), cycling, buses and 20 mph zone. . |
| Corridor 1c - Uxbridge Road Hanwell & West Ealing Section | Completion of current multimodal corridor scheme started in 2013/14. Includes street scene improvements and measures to support walking cycling, road safety, buses and smoothing traffic flow. |
| Corridor 1d - Uxbridge Road Ealing Town Centre Section | Multimodal corridor scheme focused on better provision for cyclists and pedestrians, street scene enhancements. New and improved pedestrian crossing facilities including shopping parade improvements and controlled crossing relocation developed in parallel with Ealing cinema re-development. |
| Corridor 3 - Acton north-south corridor Phase 3 | Further work to improve street scene and improve conditions and safety for cycling and walking. Schemes will be integrated with proposals for North Acton and Acton Mainline Stations. |
| Corridor 4 Northfields Avenue Phase 3 | Further works to address issues of traffic congestion, bus delays, speeding and collisions on Popes Lane and Little Ealing Lane. |
| Corridor 5 Southall South Road & King Street | Continuation of congestion relief, road safety and street environment improvements incorporating Southall Great Streets Phase 2 project. |
| Corridor 8 - Greenford Town Centre & Greenford Station | Replacement of subways with at grade toucan crossings on Greenford roundabout slip roads and integrate improvements with new school. Improve cycling infrastructure and pedestrian crossings. |
| Corridor 11 - Mandeville Road, Northolt | Significant multi-modal scheme focused on improved road safety; reduced traffic severance, dominance and congestion and enhancements to the street scene including and better pedestrian links between local green spaces. Continuation of Neighbourhood 14, Northolt Station access improvements for pedestrians and cyclists. |
| Corridor 12 Tentelow Lane access & Windmill Lane, Southall | Multi-modal corridor scheme focused on delivering improved road safety, smoothing traffic flow and providing better conditions for cyclists. |
| Corridor 13 - Whitton Avenue East & West | Multi-modal corridor scheme focused on addressing congestion, traffic collisions, parking issues and speeding. |
| Neighbourhood 3 - Perivale (Bilton Road area) | Measures to encourage HGVs to use routes away from residential streets |

| | |
|--|---|
| Neighbourhood 18 - Lady Margaret Road, Southall | Measures to reduce traffic dominance and speeding, safety improvements at Carlyle Avenue roundabout, and improve cycling and pedestrian infrastructure. |
| Neighbourhood 25 - Bollo Lane/South Parade | Continuation of scheme from 2013/14 to address local road safety, speeding and rat-running issues. |
| Neighbourhood 26 - Greenford Avenue, Hanwell | Scheme to address poor street environment, cycling, road safety, traffic congestion, parking and bus issues. |
| Neighbourhood 28 - Northolt West End | Scheme to address rat-running, speeding and road safety (residents' concerns), plus reduce traffic collisions on Yeadings Lane. |
| Mobile Vehicle Activated Signs | Target local speeding traffic issues at alternating locations around the borough. |

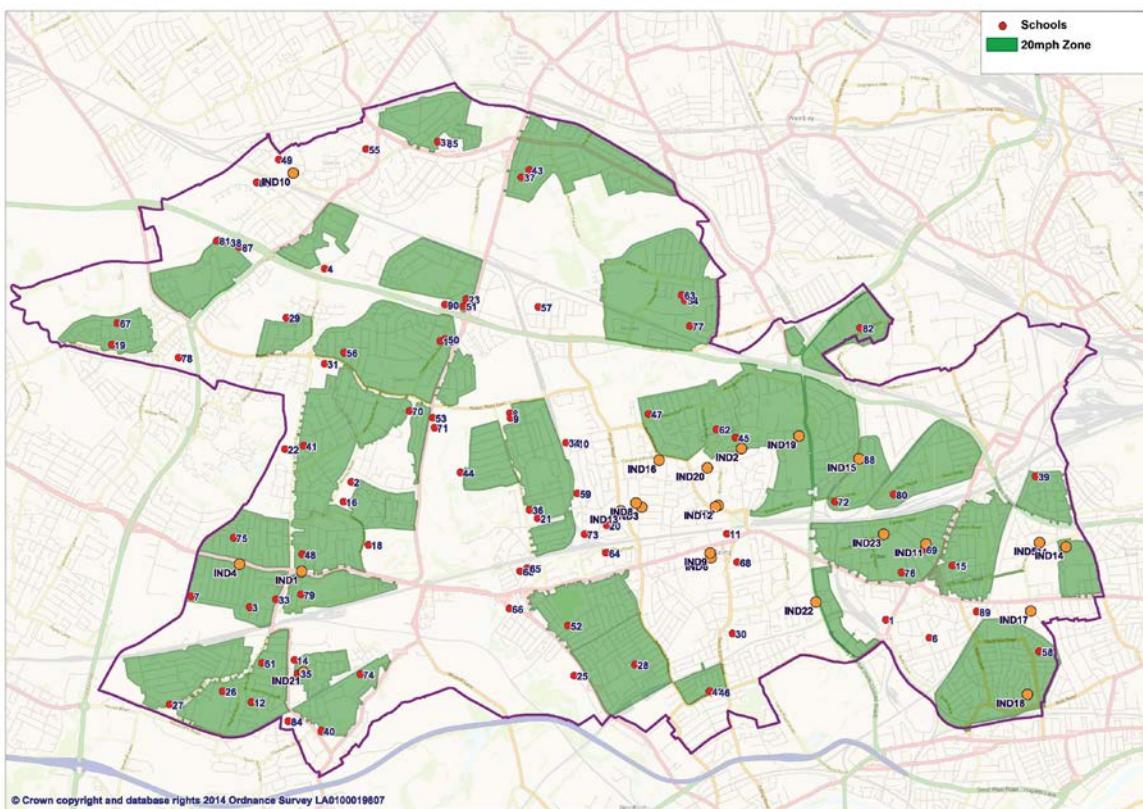
Borough 20 mph

Ealing Council has implemented around fifty 20 mph Zones over the last 12 years. Currently over half of all residential areas are within a 20 mph zone (see Map 5.2).

Statistics show that in a 40 mph collision around 85% of pedestrians are killed, but for 30 mph this drops to 45% whilst in 20 mph collisions only 5% of pedestrians are killed.

Ealing Council is planning to introduce further 20 mph zones in five more town centres including Acton, Ealing Broadway, Southall, Hanwell and West Ealing. A new Urban Speed Limit Policy is being drawn up which could see 20 mph limits rolled-out on a wider scale to whole areas of the borough.

Map 5.2 Location of Existing 20 MPH Zones



Speed Limit Reduction

All borough roads within Ealing have a speed limit of 30 mph or less following the reduction of the Yeading Lane speed limit from 40 mph to 30 mph, completed in partnership with Hillingdon Council in 2012.

Technology

Vehicle Activated Signs (VASs) and Speed Indicator Devices (SIDs) are two similar types of speed management signs. Their aim is to influence drivers' behaviour, reduce vehicle speeds and improve road safety. Both types operate by displaying information to drivers via illuminated signs that are activated by measuring the speed of approaching vehicles. The sign also collects speed data when the display is switched off. Evidence of speeding and collision risk are the main reasons for using VASs and SIDs.

The Council approved a policy on vehicle activated signs in June 2010. The policy is based on the DfT's Traffic Advisory leaflet 1/03 on VASs. The main points of the policy are that whilst the signs are effective in general, they will be more useful in some situations than in others. To date and to ensure value for money, the signs have only been installed when all of the following criteria are met:

1. The problem is unlikely to be resolved with new or improved standard signs and lining.
2. There are no other solutions that are considered more suitable and cost effective, such as fixed traffic calming,
3. The street or area has both: A collision problem that is associated with inappropriate speeds, AND
Existing 85th percentile speeds are at least 10% above the speed limit plus another 2 mph (for example 35 mph in a 30 mph street)

The signs should not be used in place of standard speed limit plate signs. Neither should they be used to target all drivers but rather to target those who exceed either the posted speed limit or the safe speed on a hazardous section of road. However, officers will review this approach, including possible use of mobile signs.

VASs flash a warning when a vehicle approaches at a speed higher than the speed limit, showing '20', '30' or 'slow down'.

SIDs flash up the speed at which the vehicle is travelling. They do not show the speed if it is more than 15 mph above the speed limit, in order to discourage excess speeding by drivers who wish to set a personal record.

VASs appear to deliver the largest reduction in speeds (an average of 4.0 mph) and are fixed signs they can be left in place permanently. This makes them more cost-effective than the SIDs. Ealing currently has 39 VAS signs installed in various locations in the borough.

Studies have shown that SIDs should be left in place for only 2 to 3 weeks, and rotated between sites for maximum effectiveness. They are best used in areas where a speed limit changes in order to reinforce the change near schools or at the start of 20mph zones. The average speed reduction achieved by SIDs is 1.4 mph and Ealing currently has one sign of this type installed.

The Council is pursuing a more flexible approach and trialling mobile VASs that can be deployed for short periods as new concerns arise for speeding in various specific locations (see Table 5.2).

Additional Pedestrian Crossings

Table 5.2 Recent New or Improved Pedestrian Crossing Locations

| Location | Measure(s) | Installation |
|--|---|---------------|
| Twyford Abbey Road (West Twyford Primary School) | Zebra Crossing | Summer 2011 |
| Wadsworth Road, Perivale | Zebra | Summer 2012 |
| South Ealing Road | Zebra Crossings x 2 | Summer 2012 |
| Uxbridge Road/Northfield Avenue/Drayton Green Road 'Lido junction' | Pedestrian phases at signal controlled junction | Summer 2012 |
| Boston Road | Zebra Crossing | Summer 2012 |
| Merton Avenue, Northolt (Greenwood Primary School) | Zebra Crossing | August 2012 |
| Kensington Road (Northala Fields) | Toucan Crossing | November 2012 |
| Knights Avenue/Popes Lane | Zebra Crossing | December 2012 |
| South Ealing Road | Zebra Crossing | May 2013 |
| East Churchfield Road | Zebra Crossing | June 2013 |
| East Acton Lane | Zebra Crossing | June 2013 |
| Victoria Road/Atlas Road | Zebra crossings x 4 | March 2014 |
| Uxbridge Road/Gunnersbury Lane Junction | Pedestrian phases at signal controlled junction | March 2014 |
| Uxbridge Road east of Mansell Road | Toucan crossing | April 2014 |
| Uxbridge Road east of Church Road - Hanwell | Signal crossing | April 2014 |
| Uxbridge Road west of Church Road - Hanwell | Signal crossing | April 2014 |
| Church Road by Uxbridge Road | Zebra crossing | April 2014 |
| St George's Road by Uxbridge Road | Zebra crossing | April 2014 |
| Acton Lane/Beaconsfield Road | Zebra crossings x 2 | June 2014 |
| Norwood Green Road (Khalsa Primary School) | Zebra Crossing | August 2014 |
| Fisher's Lane | Zebra crossing | October 2014 |
| Mount Avenue/ Westmoreland Place (St Gregs) | Zebra crossing | November 2014 |
| Drayton Green (Drayton Green Primary School) | Zebra Crossing | November 2014 |
| St Stephens Road (Notting Hill & Ealing High School) | Zebra Crossing | November 2014 |



East Acton Lane before (with informal crossing)



East Acton Lane after (upgraded to raised Zebra crossing)

6. Schools

Schools have a crucial role to play to make local roads as safe as possible. The World Health Organisation (WHO) estimates that road collisions are the leading cause of death among children and young people aged 10 - 19 years in the UK.

Ealing schools receive considerable support to promote road safety (in partnership with the Council, TfL and the Metropolitan Police).

The Council produces a Sustainable Modes of Travel Strategy (SMoTS) and its main function is to encourage a modal shift from car to walking, cycling and public transport by schoolchildren, their teachers and parents.

The Council outlines its programme of school road safety in the SMoTS. The aim of the strategy is to encourage pupils to travel to school safely by using sustainable and healthy modes of transport. The Council's school travel programme is the primary method to achieve this aim.

The Strategy promotes the use of several initiatives to discourage cars on the school run, increase safety around school gates and promote the safety, health and environmental benefits of walking and cycling to school. Clearly road safety issues need to be fully addressed in the School Travel Plan process and this section of the Road Safety Plan looks at measures in the School Safety Zones programmes that arise out of School Travel Plans. More information is available on the Ealing Grid for Learning website: <http://www.egfl.org.uk/categories/pupil/schtravplan>

Between January 2011 and December 2013 (three year period) there were 240 reported collisions involving children in Ealing. This is a reduction from 318 reported child collisions in the 2009 to 2011 period.

Further details on child casualties are given in the Sustainable Modes of Travel Strategy Schools (SMoT) at
http://www.ealing.gov.uk/info/100011/transport_and_streets/620/transport_strategies_and_plans

Programme

The Council has an active programme of working with schools to develop school travel plans (STPs). Funds allocated to this programme total £250,000 for 2014/15. As part of this process school safety issues are identified and the engineering scheme prioritisation criteria (outlined in the SMOTs) applied. This identifies criteria for funding engineering projects for schools based on several points including; schools being engaged in the school travel programme, involvement in road safety or sustainable travel schemes and scope of assistance the engineering will provide for pupils and parents walking/cycling to school. Examples of these measures include pedestrian crossings and zig-zag 'keep clear' road makings delivered as appropriate to each school and its catchment area.

Current school-based road safety activities in Ealing include the following:

School Crossing Patrols – Officers to facilitate the safe crossing of roads for children close to their school, they are often invited to schools to give presentations, in their capacity as patrollers

Walking routes – identified and audited routes to schools where improvements, e.g. street lighting, can be targeted

Walking Buses – groups or 'buses' of children and adults who walk from home to school each day

Biking Schools programme – an all-inclusive and intensive cycle training. The only programme of its kind in London that involves compulsory cycle training for the whole school, combined with a regular coach presence one day a week.
(runner up, Achievements in Cycling, London Transport Awards, 2014)

Bike Swap – involves parents and pupils bringing old bikes to swap for suitably sized models. Bikes are dropped off in the morning, mechanics check and repair them before swapping occurs after school. Pupils also have the opportunity to purchase accessories including helmets and locks.
(winner, Award for Cycling, Modeshift National Transport Awards, 2014)

Cycle training – Bikeability trained funded by the Direct Support for Cycling programme that is delivered through schools (sometimes as part of a bike club).

Cycle audit – classifies roads and routes by National Cycle Training Standard level that cyclists need to achieve to be able to use relatively safely

Scooter training - footpath training for safe scooter use or year 2 children

Road Safety Engineering: Crossing points, zig-zag markings, school warning signs, 20 mph zones – can be requested near schools subject to meeting the criteria

School Park and Walk/Walking zones – initiative to promote suitable parking areas a distance from schools where parents/carers can park and walk their child the final distance to school

Children's Traffic Club - resources for at home and for nurseries for 3 and 4 year olds, organised by TfL and Ealing Public Health team

TfL safety and citizenship - provides a transport education service to schools, which promotes safety and citizenship on and around London's transport system

Healthy Schools Programme - engages children and young people to be healthy and achieve at school and in life. By providing opportunities at school for enhancing health, the programme aims to improve long term health, reduce inequalities, increase social inclusion and raise achievement.

Junior Road Safety Officers - (JRSOs) are chosen to promote road safety in their school. This can include spreading road safety messages to the school community by giving talks, running competitions and putting up posters. Currently there are 12 schools taking part with 4 JRSOs in each school. Successful JSRO 'X-Factor' competitions have been run in partnership with Hounslow Council over the last three years.

Publicity

Walk on Wednesdays (WoW), Walk to School week and month, 'Keep the zig-zags clear' campaign with associated road safety poster, TfL guidance booklets for schools, Road safety resources - activity booklets, leaflets for parents, assembly packs, posters and games, also available in other languages

Theatre in Education

The school travel advisers organised Theatre in Education groups to visit Ealing schools (with approved travel plans) to conduct performances on sustainable travel and road safety. These are entertaining performances that also get across a very important message to pupils. Relevant performances are listed in Table 6.1.

Table 6.1 Theatre in Education Performances

| Production | Company | Summary |
|--------------------------------------|-------------------|---|
| The Price | Walking Forward | Aims to create a level of understanding of responsibility for the year 7 transitional age group. With a new sense of freedom from the constraints of primary education, there is a price to be paid - responsibility. This year the play links in with TfL's current campaign " <i>Don't let your friendship die on the road.</i> " |
| Now you see me, now you don't | Immediate Theatre | Focuses on a crash in which 11 year old boy, Aaron, is hit by a car. Explores the events leading to the crash for Aaron and his best friend Kali (both recently started secondary school). The audience is asked to establish who is to blame for the accident. Aimed at year 6 pupils. |
| Wasted | Walking Forward | Educational drama that seeks to address some of the moral issues linked to driving under the influence of drugs. Aimed at Year 9 and above. |
| Safe Drive Stay Alive | Questors Theatre | Roadshow based around powerful personal testimonies designed to make the audience aware of the nature and extent of personal tragedy and suffering a road traffic collision can and does cause. Aimed at Year 12 and above, delivered in partnership with emergency services and LB Hounslow. |

Further Details of the School Travel Plan programme are contained in the Sustainable Modes of Travel Strategy. This can be found on Ealing Councils website www.ealing.gov.uk or for more information visit www.egfl.org.uk/stp or contact the school travel advisors, email: sta@ealing.gov.uk

7. Cycle Safety

Direct Support for Cycling

The Direct Support for Cycling (DSC) programme has been running in Ealing for ten years and aims to equip cyclists with the necessary skills to ride safely on the roads. This programme, delivered 2,892 trained children and 1,040 trained adults from April 2011 to March 2014. In this period, there were also 182 Dr Bike sessions held. Whilst in 2013/14 DSC had 15 fully accredited instructors who provided cycle training in Ealing for:

- Total children trained (all Bikeability levels) was 1,161
- Total adults trained (all Bikeability levels) was 289
- Total of 56 Dr Bike events held at 4 different locations every month at Ealing, Southall, Greenford and Acton town centres.

Ealing invests over £200,000 in the DSC programme annually. The scale of this cycling support is unprecedented for a local authority and Ealing probably has the greatest number of bikes checked in formal Dr Bike type sessions in London if not the UK. A new, enhanced DSC contract commenced in 2014 which sets ambitious targets to raise further both the quantity and quality of cycle training in Ealing during the next three years.

Ealing won the National Transport Award for Achievements in Cycling 2012 for the DSC programme and was also awarded runner up in the Achievements in Cycling award, London Transport Awards, 2014.

LBE Cycle Strategy

In 2010 Ealing Council produced its Cycling Strategy 2010-2016. A key part of the vision was to 'Promote cycling as a convenient, safe, secure, inclusive and enjoyable activity'. Generally the purpose of this document was to provide a structured approach to cycling investment and set a robust methodology to prioritise funds to increase cycling levels. The document was also an opportunity to collate and crystallise a number of different data sources on cycling.

Safety was identified as an issue, although more a problem of perceived rather than actual danger when compared to other modes. This document introduced the rate-based targets for cyclist casualties, which are now found in the LIP.

In 2012 the first phase of the Grand Union Canal towpath enhancement was completed.

Cycling in Ealing Report 2013-14

This report gives an update to the 2010 Cycle Strategy. It provides cycle data and trends (including cycle safety), details recent projects and states the funding and investment programme for cycling which includes the 'significant Mini-Holland' proposals centered on Ealing Broadway to provide a step change of enhancements for cyclists.

8. Case Studies

Cycle Safety Shield



Following the tragic two week spell of six cyclists being killed on London's roads in late 2013, with all but one of the riders involved in incidents involving a truck, bus or coach, Ealing Council decided to take a proactive lead in developing a new system to deal with this issue.

After exploring the market to see what systems were available to deal with the issue of cyclist and lorry collisions, Ealing Council was dissatisfied with the quality of what the market had to offer as a lot of the existing systems were detection systems based on 'tagging' of the vehicle and cyclist which was felt impractical and undeliverable on an effective mass scale.

Accordingly, the Council devised its own criteria and specification for the development of a collision avoidance system, which it felt would be the most effective way of eliminating the issue. After approaching a number of companies (who were unable to meet the criteria), a positive conversation was held with Safety Shield Systems. They identified a collision avoidance system that had previously been used by the Ministry of Defence for missile detection and was now available for purchase.

Ealing Council worked with Safety Shield Systems to adapt the software and technology to be able to be fitted to any vehicle and include a number of distinct features including the primary warning system to drivers of a potential collision with only cyclists, pedestrians or motorcyclists (filtering out other inanimate objects to eliminate repetitive and unnecessary alarms). This 'intelligent' detection was a key request and feedback item from the Council interviewing its existing fleet drivers on what they wanted.

The Council was however also keen to enhance the system to make it more attractive to potential buyers by including features to help improve driver training and awareness as well as reduce running costs through integration with existing fleet management systems that track driver behaviour and features. This included Headway Monitoring, Forward Collision Monitoring, High Beam Control, Lane Departure Warning and Speed Monitoring to help prevent accidents. Together with the 360 degree cameras, the trial vehicle was fitted with cycle warning stickers, Fresnel Lenses and sideguards to produce the most comprehensive package of measures on the market.

The initial six month trial using a standard contractor lorry ran from the end of 2013 to mid-2014. Throughout the six month trial period, the results were independently tested and reviewed by a number of organisations including London Cycling Campaign and an independent automotive telematics company called Ituran. The report conclusions of the six month trial were:

- The system works with combined front and left cameras mounted on the vehicle, the system is detecting only pedestrians, cyclists and motorbikes (PCM) up to 400m away from the vehicle. However these detections are not sent as a warning to the

driver unless there is a possibility of a collision. There has been over forty thousand detections by the system of a (PCM) over the trial period. However the driver was only alerted with an audio and flashing display 15 times during the same period.

- Following on from the information given in the point above, the system stands out from standard detection systems in the following ways:
 - Only detects Pedestrians, cyclists and motorbikes, not other objects such as railings, other cars, road signs ECT.
 - The system is a collision avoidance system, not an all-round detection system, reducing the alerts given to the driver which is not overloading, annoying and distracting.
- The data shows that the majority of serious collision alerts which were given to the driver, telling them to break, happened on the left hand side of the vehicle when either travelling straight or turning left.
- The driver interviewed as part of the trial clearly identified the following benefits in using the system:
 - A, The system helped improve his driving by eliminating bad habits.
 - B, compared to other systems CSS is not annoying as it does not pick up inanimate objects compared to other standard detection systems on the market.
 - C, The system has helped avoid several collisions as it gave him time to brake after being warned.
 - D, The driver has started to keep a safer distance from the vehicle in front since the system was installed due to the headway monitoring function which is obviously safer and has also helped improve fuel efficiency.
 - E, the driver would recommend the system to other HGV drivers.

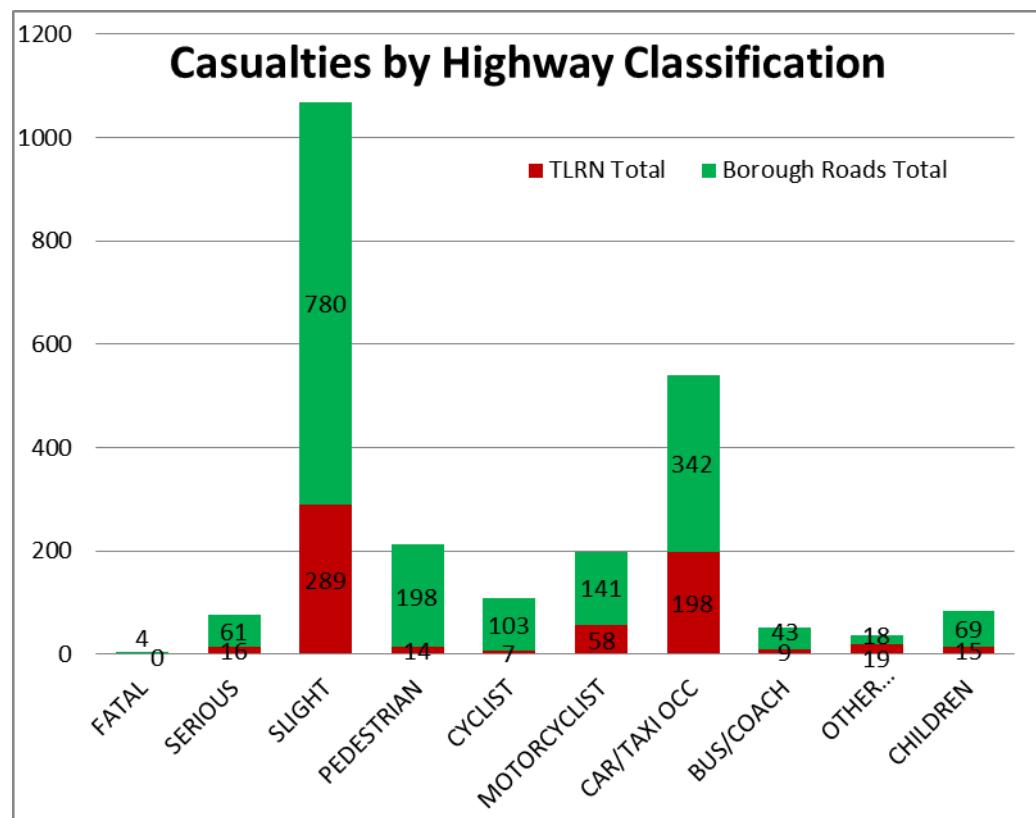
- During the six month trial period Cycle safety shield has potentially **stopped 15 serious collisions** happening between the HGV and a PCM.
- All of the serious collision warnings given happened at an average speed of 13.6 mph, at this speed a collision could have been fatal.
- Overall vehicle **fuel efficiency improved by 8%** throughout the trial period
- Overall **safety rating (driver behaviour) improved by 20%** throughout the trial period with the driver's behaviour significantly improved in Speed reduction, Forward collision warnings reduced, lane departure warnings reduced, collision avoidance alerts reduced.
- The drivers behaviour has significantly improved with less aggressive braking and acceleration and less alerts compared to miles driven. By improving the style of driving fuel efficiency has also improved which is again an added bonus to any fleet operator.

Luke Brown, the Murrills Construction Ltd driver, who drove the vehicle during the trial commented “The system does help with my daily driving and the more I drive with this system the more I am losing my bad habits” .

Despite all the features, the Council also negotiated the system to be available at a competitive price (£1,700 per vehicle). The trial has revolutionised the thinking towards lorry safety and performance in London and is now being rolled out across all of Ealing’s fleet with other Local Authorities around the world starting to follow suit.

TLRN/Borough Road Casualties

Graph 8.1 TLRN/Borough Road Casualties 2013



The split of casualties on the TLRN and Borough Road networks in Ealing is approximately one-third to two-thirds for both serious and slight categories. This pattern is also repeated for car/taxi casualties. For other categories the proportion of casualties on the TLRN is lower, being around a quarter for motorcyclists and children and less than a tenth for cyclists and pedestrians. This may be attributed to proportionally lower use of the heavily trafficked TLRN by these groups and also because all roads in the significant town centres (with high collisions clusters) are the borough's responsibility.

9. The Way Forward

Ealing Council wants to build on its recent successes in the road safety and road danger reduction fields. Projects completed as part of the LIP 2011-14 will be comprehensively evaluated to assess their impacts as collision and speed data becomes available in early 2015.

The LIP 2014-17 has recently been published. The new LIP continues the comprehensive CANs approach that sees road safety included within the scope of all schemes (including prioritising streets with higher than average numbers of collisions) and provides an excellent good opportunity to tackle both new and revisit long-standing issues in the boroughs town centres. Innovative new approaches will be trialed (such as mobile speed signs) as well as continuing successful best practice in Ealing for instance extensive cycle training, school travel plans and road safety-related projects.

A major Mini-Holland (cycling) bid was submitted to TfL as a commitment to deliver a step-change in cycling convenience and safety. In addition the Council is working with TfL and Sustrans to develop a network of cycle 'Quietways'. This will ensure the growth in the popularity of cycling does not create an increase in the number of cycling casualties.

A continued high priority and strong support of resources allocated to School Travel Plan Programme to train the next generation of road users to travel safely.

The Council will also review its road safety criteria and guidance to provide a new balance between following statistical criteria whilst allowing local flexibility where appropriate.

Ealing Council is planning to introduce further 20 mph zones in five more town centres including Ealing Broadway, Acton, Southall, Hanwell and West Ealing. A new Urban Speed Limit Policy is being drawn up which could see 20 mph limits rolled-out on a much wider scale to whole areas of the borough. This will include more residential areas and could link zones cross-boundary to maximise their impacts and effects.

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