
Meeting	Finchley and Golders Green Area Environment Sub-Committee Meeting
Date	16 October 2012
Subject	<p>Review of Pedestrian Safety and Pedestrian Facilities in East Finchley in the Vicinity of Martin School Incorporating Four Main Locations;</p> <ul style="list-style-type: none"> i) Church Lane, ii) A1000/Creighton Avenue Junction iii) A1000/Church Lane Junction, and iv) Church Lane / East End Road Junction
Report of	The Interim Director of Environment, Planning and Regeneration
Summary	The report submits the findings of a systematic study to look at how best crossing facilities could be improved for the benefit of the wider community taking into account all identified pedestrian movements at the location. It also puts forward recommendations for traffic management measures for possible implementation to address pedestrian safety concerns within the context of the intervention criteria set by 'Priorities of the Traffic Management Budget' Cabinet Report of July 2002.

Officer Contributors	Neil Richardson, Themba Nleya
Status (public or exempt)	Public
Wards affected	All
Key Decision	No
Enclosures	Appendix A: Church Lane 20mph Conceptual Design; Appendix B: Creighton Avenue Zebra Crossing Conceptual Design; Appendix C: A1000/Church Lane Signalisation Feasibility Report; Appendix D: East End Road Pedestrian Island Conceptual Design; Appendix E: 36 Months Accident Data & Locations (Nov 08 to Oct 11); Appendix F: Speed Survey Summaries
Function of	Executive
Reason for urgency / exemption from call-in	Not applicable

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1. RECOMMENDATION

- 1.1 That the Committee decides whether to instruct the Interim Director of Environment, Planning and Regeneration to progress the proposed 20mph speed limit on Church Lane.**
- 1.2 That the Committee decides whether to instruct the Interim Director of Environment, Planning and Regeneration to progress the proposed Zebra crossing on Creighton Avenue to consultation stage with a view to implement.**
- 1.3 That the Committee notes that there is no recommendation to make modifications to the existing junction configuration and layout of pedestrian facilities at the A1000 and Church Lane junction.**
- 1.4 That the Committee decides whether to instruct the Interim Director of Environment, Planning and Regeneration to progress the proposed pedestrian island at the junction of Church Lane and East end Road to consultation stage with a view to implement.**
- 1.5 That the Committee notes the maintenance-related improvements in the form of footway relays, signs rationalisation and changes to street furniture including pedestrian guardrail that have previously been undertaken**

2. RELEVANT PREVIOUS DECISIONS

- 2.1 None.

3. CORPORATE PRIORITIES AND POLICY CONSIDERATIONS

- 3.1 A formal procedure to review the appropriateness of traffic signals in the borough as it contributes to the One Barnet Plan and Corporate Plan priority “A Successful London Suburb” by keeping traffic moving.
- 3.2 Un-necessary traffic signals may cause delays, contribute to high maintenance costs, increase clutter and diminish the overall input to the transport needs of Barnet today and into the future. Therefore the recommendations also seek to contribute to the corporate priority ‘Better Services with Less Money’ as contributions for traffic signal maintenance would reduce at locations where an unjustified signalling of junctions can be avoided.
- 3.3 The London Mayor’s Transport Strategy also addresses these areas through:
“Proposal 30: The Mayor, through TfL, and working with the London boroughs and other stakeholders, will introduce measures to smooth traffic flow to manage congestion (delay, reliability and network resilience) for all people and freight movements on the road network, and maximise the efficiency of the network. These measures will include ...c) “... keep traffic moving ...” , e) Planning and implementing ... improvements to the existing road network, ... to improve traffic flow on the most congested sections of the network, and to improve conditions for all road users

4. RISK MANAGEMENT ISSUES

- 4.1 Introducing a zebra crossing at the proposed location on Creighton Avenue requires extensive pedestrian guardrail to channel users to the crossing. However the provision of guardrail for this purpose may be seen as contributing to street clutter as well as hindering sightlines. It is also counter-productive as it contradicts cost-effective strategies due to associated capital and maintenance costs.
- 4.2 At some locations, there may be concerns that pedestrian guardrail may restrict or trap cyclists caught between the rails and large vehicles and therefore eliminates chances for cyclists to escape potentially hazardous situations. Besides, the provision of guardrail is itself not always an effective way to mitigate entirely the risk that an accident or accidents may take place at pedestrian crossing points.
- 4.3 Replacing the existing pedestrian island on Creighton Avenue with a Zebra crossing can increase the risk of rear-shunt collisions and tailbacks on the A1000 High Road during periods of high pedestrian activity as sustained demand for the zebra crossing will continuously confer priority to pedestrians thus putting traffic on hold and causing journey-time delays to vehicular traffic.
- 4.4 Relocating of existing pedestrian facilities or the introduction of new, may provide a disproportionate benefit when taking into consideration the capital outlay required for the relocation of street furniture, lighting equipment, new pedestrian guardrail and associated utility improvements. On the other hand, any attempts to omit the pedestrian guardrail to curtail costs may lead to the use of undesignated crossing points thus increasing the risk of pedestrian-vehicle collisions.
- 4.5 Introducing controlled pedestrian facilities and features such pedestrian islands at those locations where there are none such as on Creighton Avenue and East End Road /Church Lane junction respectively will lead to a loss of amenity in the form of public off-street parking as park-free zones have to be created on the approaches to the crossings to ensure adequate inter-visibility. This loss of parking space may meet resistance particularly from those residents that rely on the available kerb space for their off-street parking needs should there be no spare capacity nearby that is available. This may be pertinent to this area as it sits right on the periphery of the controlled parking zone. As a result the area is characterised by high parking demand.
- 4.6 There is a cost associated with developing and implementing proposals. In order to limit abortive costs, the recommendations aim to rule out impractical or speculative proposals at early stage where acceptable alternative forms of control are unlikely to be technically feasible or economically viable or are unlikely to confer desired benefits. The Council has a duty to ensure value for money when carrying out programmes that are funded from the public purse. For this reason it may not be prudent to give sanction to the proposals to signalise the A1000/Church Lane junction and introduce a 20mph speed limit on Church Lane.

5. EQUALITIES AND DIVERSITY ISSUES

- 5.1 Section 149 of the Equality Act 2010 which places and strengthens the duty on public authorities to advance equality of opportunity came into effect on 5 April.
- 5.2 This includes giving due regard to the need to advance equality of opportunity and, remove or minimize disadvantages related to particular protected characteristics and to take steps to meet the different needs that result including taking account of disabled persons' disabilities.

- 5.3 Formal or controlled pedestrian crossings provide a safer alternative to all users to cross busy roads. They can be of particular benefit to those members of the community who are less able to judge whether it is safe to cross, or less confident that they can do so. This may include vulnerable and disadvantaged user-groups such as the disabled, visually-impaired or partially-sighted, the elderly and school pupils and their carers.
- 5.4 The priority accorded to pedestrians by zebra crossings and the coloured tactile paving provides the necessary confidence to wheelchair-bound and other vulnerable users to cross more easily what would be an otherwise difficult challenge. This also allows learning disabled people or children to navigate independently where they would otherwise not be able to. Parents and other carers supervising small children may also find the reassurance of a controlled crossing particularly helpful.
- 5.6 The extent to which junctions and crossings operate safely will vary depending on the levels of vehicular and pedestrian traffic and the mix of users due to the local environment and facilities e.g. town centre, local schools etc.
- 5.7 Whereas during periods of lower traffic levels give-way priority would not be expected to adversely affect safety and optimum operation, during peak periods when demand is high both in terms of vehicular and pedestrian traffic, signalisation may be necessary to provide optimum needs of all users.
- 5.8 In some cases it will not always be economically viable to provide an alternative without disadvantaging some user-groups or one that is seen to be more biased towards catering for a particular category of road user.
- 5.9 In order to fully inform the feasibility study on the impact that signalising the A1000/Church Lane junction may bring, this report includes in **Appendix C** the output of a site specific Feasibility Study that highlights the impact of the three possible layout options that could be considered as part possible signalisation of the junction. The assessment takes into account the peculiar characteristics of the location, likely users and traffic levels to interrogate and predict the outcomes.

6. USE OF RESOURCES IMPLICATIONS (Finance, Procurement, Performance & Value for Money, Staffing, IT, Property, Sustainability)

- 6.1 **Finance** Estimated costs for the necessary statutory processes, including advertising, printing and all officer time which would be rechargeable, including consideration of any comments received and report writing will be met from the applicable LIP funding secured for the purpose of making improvements to the Borough's road network. Any financial implications will be contained within the Environment, Planning and Regeneration budgets.
- 6.2 Indicative costs for provision of a pedestrian island, provision of a new zebra crossing, and typical maintenance costs and/or savings are tabulated below.

Type of Measure	Estimated Costs
Traffic Signals at A1000/Church Lane	£50k to £155k depending on preferred layout option from Appendix C + £2.5k/year ongoing maintenance cost
Pedestrian Island	£5k
Zebra crossing + guardrail	£30k
Signs + 20mph limit + VAS	£7k

- 6.3 Traffic signal maintenance payments made to Transport for London (TfL) amount to some £460,000 per annum (2011/12). Annual maintenance costs per aspect (an aspect can be thought of as a “light-bulb” so each red, amber or green light, each red or green man signal, and each push button unit are an aspect) is currently approximately £80 (the saving from removal of older units may be more). A simple T-junction without pedestrian signals would have at least 18 aspects so an annual maintenance cost of at least £1,440 and a cross roads with pedestrian signals on each arm would have at least 36 aspects so an annual cost of at least £2,880. More complex arrangements would cost appreciably more.
- 6.4 **Procurement** Works involving traffic signals would have to be procured through Transport for London who is the operator of the equipment. Other highway works would be procured through the borough’s highway term contracts.
- 6.5 **Performance & Value for Money** The assessment of proposals for individual sites has included assessment of the financial costs and benefits and changes in delays and accidents at the junction.
- 6.6 There are no **Staffing, IT or Property** implications arising out of this report.
- 6.7 **Sustainability** None.

7. LEGAL ISSUES

- 7.1 The Traffic Management Act 2004 places an obligation on authorities to ensure the expeditious movement of traffic on their road network.
- 7.2 The GLA Act 1999 s245 and the Road Traffic Regulation Act 1984 s74A provides for Transport for London to operate and maintain traffic signals on borough roads.
- 7.3 The Equality Act 2010 s149 places a duty on public authorities to advance equality of opportunity.

8. CONSTITUTIONAL POWERS (RELEVANT SECTION FROM THE CONSTITUTION, KEY/NON-KEY DECISION)

- 8.1 Constitution Part 3, Responsibility for Functions – Section 3, Responsibilities of the Executive – Area Environment Sub- Committees perform functions that are the responsibility of the Executive including highways use and regulation not the responsibility of the Council.

9. BACKGROUND INFORMATION

- 9.1 In 2006/07 a School Travel Plan Implementation Scheme was developed to address barriers to travelling more sustainably to school that had been identified in the Martin School Travel Plan. Following consultation the following engineering measures were installed:
- i) Church Lane – footway improvements, signage improvements for the zebra crossing at the junction with A1000
 - ii) Creighton Avenue – kerb realignment and pedestrian island improvements as well as a number of improvements to the footway and carriageway along Plane Tree Walk.

- Since the end of the summer of 2011, various traffic and pedestrian safety concerns in East Finchley have been raised by various residents and stakeholders who then organised themselves into an interest group called WALKSAFE N2.
- Officers have held several meetings and discussions with both the WALKSAFE N2 group and ward members to understand the concerns better after which an e-petition with more than 2000 signatures was then submitted.
- A meeting between the WALKSAFEN2 Group representatives and the Cabinet Member for Environment took place on 10 February 2012.
- The petition was featured on the Agenda of, and debated by, the Business Management Overview and Scrutiny Committee meeting on 29 February 2012 and the Interim Director of Environment, Planning and Regeneration (EPR) was tasked to conduct investigations on site to undertake a holistic survey of the area to look at how best crossing facilities could, if there is justification, be improved for the benefit of the wider community taking into account all identified pedestrian movements at the location.
- In summary, the areas of road safety that have been under investigation include the following;
 - i) Church Lane - A review of pedestrian facilities and speeding concerns
 - ii) Creighton Avenue and A1000 High Road Junction - A feasibility study to consider a zebra crossing facility subject to visibility and technical considerations being met.
 - iii) Church Lane and A1000 High Road Junction - Review of existing pedestrian facilities (pelican and zebra crossings) and carrying out feasibility studies to explore the signalisation of the junction.
 - iv) Church Lane and East End Road Junction - A feasibility study to consider a pedestrian island facility subject to visibility and technical considerations being met.

This report is a result of the investigations and the table below summarises officer findings, and recommendations for consideration.

Church Lane - A review of pedestrian facilities and speeding concerns	
Pedestrian facilities & Sight lines	<ul style="list-style-type: none"> • Due to the restrictive road space, the footways on both sides of the Church Lane carriageway are narrow and confine pedestrians who are then forced to walk very close to the live traffic. At some sections pedestrian guardrail is strategically positioned to prevent pedestrians straying onto the carriageway • Visibility along Church Lane, taking into account recorded speeds is deemed adequate
Related Personal Injury Accidents (PIA)	<ul style="list-style-type: none"> • None related in the last 36 months
Speed surveys	<ul style="list-style-type: none"> • Speed surveys have been carried out at two locations along the one-way section of Church Lane either side of the railway bridge. The summary is shown in Appendix F. • The recorded average 85%ile speeds over the 7-day period between 6am and 6pm are 29.7mph east of the bridge and 31.3mph west of it.

	<ul style="list-style-type: none"> • The corresponding figures for the same locations during that period coinciding with morning and after-noon school-runs (7am-10am, 2pm-5pm) are 28.8mph and 31.2mph respectively • As Church Lane is subject to a 30mph posted speed limit, the figures do not appear to suggest speeding during those times that the assessment was made. • Further, the speeds on the east side of the bridge which is on the approach to the school are marginally lower during school peak periods when children are walking to/from school reflecting increased traffic volumes during this period • As the complaints received from residents regarding perceived 'speeding' are so far not established, the perception is thought to arise due to the fact the footways are of narrow width which forces pedestrians to walk so close to live traffic • Excessive speeds and an adverse personal injury accident record are key to any considerations for measures in response to calls for 20mph speed limit or other related traffic management measures. • While a lower speed limit will make the area safer, based on accident records and recorded speeds, it is not obvious that the introduction of a 20mph speed limit restriction yield a significant benefit.
Related PIAs	<ul style="list-style-type: none"> • None related in the last 36 months
Recommendation / financial implications	<ul style="list-style-type: none"> • Although the findings of the investigations when assessed within the context of the existing traffic management show that there would be no justification to introduce the 20mph speed limit, however officers realise that in the context of what we are trying to achieve in the area the Committee decides whether to instruct the Interim Director of Environment, Planning and Regeneration to progress the proposed 20mph speed limit on Church Lane that is shown on Appendix A with or without modifications. • Approximate cost £7k.

Creighton Avenue & A1000 Junction - A feasibility study to consider a zebra crossing subject to visibility and technical considerations being met.

Existing pedestrian facilities and sight lines	<ul style="list-style-type: none"> • The informal pedestrian crossing incorporating an island was improved as part of previous school travel plan initiatives
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	<ul style="list-style-type: none"> • However there are residual concerns regarding vehicles turning left into Creighton Avenue turning at speed due to a permitting kerb alignment and therefore failing to see pedestrians waiting to cross who, themselves, may be masked by adjacent private hedge • Existing configuration permits pedestrians to navigate across Creighton Avenue in to stages although several meetings with parents suggest users are not satisfied with the arrangement • Pedestrian demand for the facility was assessed during the school run hours shows high footfall • A zebra at the current informal crossing would cause tailbacks on the A1000, increase the risk of rear shunts • Offsetting the location of zebra crossing, as is shown in Appendix B, places it away from pedestrian desire line necessitating additional features such as guardrail • A new zebra crossing will result loss of off-street parking as car-free approaches have to be created for a zebra crossing to ensure adequate visibility, a development that may meet resistance especially from those residents that rely on off-street parking for their needs if no alternative parking spaces are offered. 				
Traffic flows		Left into Creighton Ave	Right into Creighton Ave	Left Out / Right Out	Ped /hr
	7.30-8.30	224	49	49/212	72
	8.30-9.30	224	45	58/157	284
	2.30-3.30	132	63	94/62	95
	3.30-4.30	181	63	109/72	254
Related PIAs	<ul style="list-style-type: none"> • 3 out 4 incidents in the last 36 months at this location involved right-turning movements are classed as 'slight'. Includes two incidents involving pedal cycles • 1 incident classed as slight involved a 'passenger falling as bus pulls off' • None involving a pedestrian. The computed accident rate for the junction is 1.33/year 				
Recommendation / financial implications	<ul style="list-style-type: none"> • That the Committee decides whether to instruct the Interim Director of Environment, Planning and Regeneration to progress the proposed Zebra crossing on Creighton Avenue to consultation stage with a view to implement. • Approximate cost £30k 				

Church Lane & A1000 Junction - A Review of the existing junction and Impact Assessment of Signalising the Junction

Justification for traffic signals

- Forward visibility on all three approaches to the T-junction are deemed adequate
- Existing configuration and relationship between the zebra crossing on Church Lane arm and the Pelican crossing across the A1000 is considered optimum taking into account assessed levels, of pedestrian demand, pedestrian movements, volumes of traffic
- The pelican crossing is deemed appropriate as it balances the needs of vehicular traffic and pedestrians whereas signalling the junction will not confer any further advantages to pedestrians, will lead to loss of kerb parking space and exacerbates congestion.
- The existing Transport for London criteria recommends;
 - i) signalling a junction for the benefit of pedestrians if turning traffic volumes exceeds 700 vehicles per hour or the flow of pedestrians is greater than 300 per hour (DfT circular 5/73 or Justification for Traffic Signals- TfL) with figures being the average of the flows during the busiest 4 hours of the day. None of the criteria is met for this location.
 - ii) signalling a junction for the benefit of reducing traffic conflicts and delays if total entering intersection is 565 or greater and contribution from the side road is 170.
 - iii) signalling a junction for the benefit of side road traffic where such traffic experiences unreasonable delay in trying to break into a continuous stream of traffic on a major road if total entering junction is 1356 or greater and contribution from side road is at least 112.
- The above criteria in (i) was applied as it accords with the remit of the study and is not met. Besides, any plans to signalise the A1000/Church Lane junction could be potentially vetoed by Transport for London since the location lies on a traffic-sensitive road that forms part of the London Strategic Road Network (SRN).
- To date, an additional school warning sign on the Church Lane approach arm has since been installed and the line and carriageway markings have been refreshed to make crossings more conspicuous.

Traffic flows		Total entering junction	Side road contribution	Turning traffic >700/hr?	Ped >300/hr?
	7.30-8.30	1549	271	No	No
	8.30-9.30	1047	350	No	No
	2.30-3.30	1672	302	No	No
	3.30-4.30	1906	350	No	No
Related PIAs	<ul style="list-style-type: none"> • 1 out of 7 incidents in the last 36 months at this location involved a pedestrian. • The computed accident rate for the junction is 2.3 PIA /year. By comparison, a signalised junction in Greater London would be expected to have an accident rate of 2.64 PIA / year (SQA 64 2006 Value) • The one incident involving a 14 year old hit at Pelican Crossing by car travelling North to South going 'drove through as ATS changed from green to amber' is classed 'serious' and all others are classed 'slight' • A detailed feasibility study on the potential signalisation of the junction is presented in Appendix C 				
Recommendation / financial implications	<ul style="list-style-type: none"> • That the Committee notes that there is no recommendation to make modifications to the existing configuration of the A1000 and Church Lane junction and the associated layout of pedestrian facilities. 				

Church Lane & East End Road Junction - A feasibility study to consider a pedestrian island subject to visibility and technical considerations being met.

Existing pedestrian facilities and sight lines	<ul style="list-style-type: none"> • The junction has a wide bell-mouth and dropped kerbs without tactile paving • The existing layout is not seen as user-friendly to pedestrians and vulnerable user groups as it encourages vehicles to turn at speed into Church Lane due to a permitting kerb alignment • Drivers run the risk of failing to see pedestrians waiting to cross or failing to stop in time • The existing road width configuration does not permit pedestrians to navigate across in two stages due to the absence of a suitable pedestrian island. • A conceptual design is as is shown in Appendix D. • Through the vehicle swept path analysis, the need to accommodate larger turning vehicles such as Refuse and Fire Tenders has offset the proposed island slightly and away from the desirable line of visibility. <p>However, this is outweighed by the benefit that the</p>
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	introduction of the island is expected to bring as experience elsewhere shows islands can be an effective visual deterrent in curtailing speeds as it imparts to the drive the feel of a 'narrow' and 'pedestrian-zone' environment that demands cautious driving.
Related PIAs	<ul style="list-style-type: none"> • The 2 PIA incidents in the last 36 months recorded at this location involved turning movements and both are classed as 'slight' • 1 incident involved a pedestrian hit by a car turning at speed • The computed accident rate for the junction is 0.67 PIA /year
Recommendation / financial implications	<ul style="list-style-type: none"> • That the Committee decides whether to instruct the Interim Director of Environment, Planning and Regeneration to progress the proposed pedestrian island at the junction of Church Lane and East end Road to consultation stage with a view to implement. • Approximate cost £5k

10. LIST OF BACKGROUND PAPERS

10.1 None.

Cleared by Finance (Officer's initials)	MC
Cleared by Legal (Officer's initials)	J O'H