

	<h2>Hendon Area Committee Meeting</h2> <h3>24 July 2017</h3>
<p style="text-align: right;"><b>Title</b></p>	<p><b>Colindeep Lane – Pedestrian Improvements (Initial Assessment)</b></p>
<p style="text-align: right;"><b>Report of</b></p>	<p>Strategic Director for Environment</p>
<p style="text-align: right;"><b>Wards</b></p>	<p>Colindale Ward</p>
<p style="text-align: right;"><b>Status</b></p>	<p>Public</p>
<p style="text-align: right;"><b>Urgent</b></p>	<p>No</p>
<p style="text-align: right;"><b>Key</b></p>	<p>No</p>
<p style="text-align: right;"><b>Enclosures</b></p>	<p>Appendix 1 – Measures Studied (Drawing)</p>
<p style="text-align: right;"><b>Officer Contact Details</b></p>	<p>Jamie Blake – Strategic Director for Environment                  Jamie.blake@barnet.gov.uk</p>

<h2>Summary</h2>
<p>This report details the preliminary feasibility study undertaken to address the pedestrian safety and vehicular traffic concerns raised in relation to Colindeep Lane outside North London Grammar School, NW9 and provides an update on the progress to date.</p>

<h2>Recommendations</h2>
<ol style="list-style-type: none"> <li>1. That the Hendon Area Committee note the findings presented, obtained as a result of a preliminary feasibility study on pedestrian improvements on Colindeep Lane in the vicinity of North London Grammar School.</li> <li>2. That the Hendon Area Committee, noting the Council’s Policy on Traffic Calming, agrees the following Officer preferred Proposal 5 which includes the following measures below:                     <ul style="list-style-type: none"> <li>• <b>Measure 1</b> – Improve signage</li> <li>• <b>Measure 2</b> – Remove excess vegetation</li> <li>• <b>Measure 3</b> - Reduce dual carriageway section to one lane in each direction</li> <li>• <b>Measure 4</b> - Traffic islands/ refuges</li> <li>• <b>Measure 5</b> - Changes to junction of Colindeep Lane with Colin Crescent</li> </ul> </li> </ol>

- **Measure 6a** - Vertical speed deterrents (cushions)
- **Measure 7** - High friction coloured surface
- **Measure 8b** – Refresh and improve road markings

3. That the Hendon Area Committee, having noted the above, gives instruction to The Strategic Director for Environment to proceed to develop a detailed design of the approved measures in recommendation 2 above.
4. That the Hendon Area Strategic, gives instruction to the Commissioning Director for Environment to carry out a statutory consultation on the approved measures.
5. That subject to no objections being received to the statutory consultation, referred to in recommendation 4, the Hendon Area Committee instruct Strategic Director for Environment to introduce the approved measures.
6. That the Hendon Area Committee agree that if any objections are received as a result of the statutory consultations, referred to in recommendation 4, the Strategic Director for Environment will consider and determine whether the approved measures should be implemented or not, and if so, with or without modification.
7. That the Hendon Area Committee note that the scheme is funded by the Local Implementation Plan (LIP) 17/18 funding to design and carry out statutory consultation and, subject to the outcome of that consultation, introduce the approved Scheme.

## **1. WHY THIS REPORT IS NEEDED**

- 1.1 Officers carried out preliminary investigations including a site meeting with Ward Councillors and the School, with input from Officers in the Safe and Sustainable Travel Team, pedestrian and traffic surveys and Personal Injury Accident data analysis and are summarised below. The findings of these surveys were presented to Committee in a report on 2<sup>nd</sup> May 2017.
  - Traffic speeds exceed the road's speed limit;
  - Traffic speeds exceed the maximum speed deemed safe for an uncontrolled pedestrian crossing;
  - There are high volumes of traffic on Colindeep Lane, with low contributions from Colin Crescent;
  - Pedestrian volumes in the area are low. In particular, demand for a crossing on this section of Colindeep Lane appears to be extremely low, with the busiest section of Colindeep Lane studied having a peak of under 5 pedestrians crossing per hour. This may be caused by the very apparent danger of crossing, and should a safe facility exist, the demand may have been higher;
  - Demand for a pedestrian crossing facility is slightly higher on Colin Crescent, with a peak of 16 pedestrians crossing per hour;

- A total of 13 accidents resulting in personal injury were recorded in the 5 year period ending August 2016. Eleven of these were slight, one severe and one fatal;
- There appears to be little conflict between vehicles and pedestrians, and the majority of accidents appear to be a result of vehicles travelling over the speed limit and not being able to react to hazards (e.g. the sharp bend of the road or vehicles exiting Colin Crescent onto Colindeep Lane);
- The most appropriate way to improve pedestrian safety on this road can only be achieved following the introduction of traffic calming measures that will slow traffic on Colindeep Lane sufficiently to allow pedestrians to travel safely around this area.

## **Proposed Improvements**

1.2 In view of the above in Committee (02/05/2017) RESOLVED  
*'That the Hendon Area Committee note the findings presented, obtained as a result of a preliminary feasibility study on pedestrian improvements on Colindeep Lane in the vicinity of North London Grammar School. That the Hendon Area Committee, having noted the above, gives instruction to The Commissioning Director for Environment to proceed to develop a traffic calming proposal within the premises set out in this report.'*

1.3 Further investigation has produced the following measures that would improve pedestrian safety and reduce vehicle speeds on Colindeep Lane.

### **1.4 Measure 1 - Improve signage** (Refer to drawing number BC/000143-15-07\_01)

1.4.1 Following a site visit it became apparent that, despite being a residential area with a school, the general feel of the road is of a large trunk road. A combination of warning signs and Vehicle Activated Signs (changing existing and adding a new one) is proposed to alert drivers of the existence of the school, the sharp bend ahead and the junction with Colin Crescent.

1.4.2 Where possible, the new signs will be installed on existing posts (such as existing signs and lamp columns), thus reducing its cluttering effect and implementation cost.

#### Advantages

- Low implementation and maintenance costs, with the exception of the Vehicle Activated Sign
- Short implementation time

#### Disadvantages:

- Limited effect as single measure, as drivers may choose to ignore signage

### **1.5 Measure 2 - Remove excess vegetation encroaching on the footway** (Refer to drawing number BC/000143-15-07\_01)

- 1.5.1 Vegetation from a private property on the south-western side of Colindeep Lane is encroaching on the footway, causing obstructions to pedestrians and drivers' sight lines.

Advantages

- Low implementation costs
- Short implementation time

Disadvantages:

- Maintenance dependent on 3<sup>rd</sup> party
- Property owners are being traced. Records show this property belonged to a company now dissolved, and to present it has not been possible to identify current owners. Due to the high risk caused, it is recommended maintenance commences as soon as practicable, and costs are recovered from owners when identified.

**1.6 Measure 3 – Reduce dual carriageway section to one lane in each direction**

(Refer to drawing number BC/000143-15-07\_01)

- 1.6.1 The overpass section of Colindeep Lane is, at present, a dual carriageway. The carriageway either side of the overpass is formed by single carriageways in a residential setting, and constitute the only access points to the dual carriageway section. There is no change in traffic volumes or speeds.

- 1.6.2 In view of the above, the additional capacity provided by the dual carriageway serves no purpose. On the other hand, this layout is inductive to drivers accelerating, which in turn contributes to the speed issues further along Colindeep Lane.

- 1.6.3 Measure 3 consists in reducing the dual carriageway section to one lane in each direction by altering existing road markings and signage.

Advantages

- Low implementation costs
- Addresses speeding problem at one of its possible roots, and therefore has a positive impact on the wider area

Disadvantages:

- Drivers may not comply to road markings and signs only, and may choose to still increase their speed. If post-implementation monitoring shows this to be the case, additional speed calming measures may be implemented, such as chicanes or cushions.

**1.7 Measure 4 - Traffic island**

(Refer to drawing number BC/000143-15-07\_01)

- 1.7.1 The majority of the accidents recorded appear to be a result of careless driving over the speed limit. The introduction of a traffic island will encourage drivers to remain alert, and reduce their speed if necessary.

- 1.7.2 Some pedestrians may still be inclined to use this island to cross the road. Therefore, this measure is not recommended in isolation. Instead, other physical measures should be placed in the vicinity.
- 1.7.3 Subject to traffic speeds being reduced to a safe level, this may be adapted to be used as an uncontrolled crossing by pedestrians in the future.

Advantages

- Physical measure that drivers cannot ignore
- Allow for future pedestrian facilities, should these be deemed safe

Disadvantages:

- The effectiveness of traffic islands has been varied when used as the only measure to reduce traffic speeds below 30 mph.

**1.8 Measure 5 - Changes to junction of Colindeep Lane with Colin Crescent**  
(Refer to drawing number BC/000143-15-07\_01)

- 1.8.1 Following site visits and accident data analysis, it is clear that this junction poses a high risk to drivers. This is as a result of low visibility for vehicles coming out of Colin Crescent, which can currently see approximately 25m along Colindeep Lane, and vice versa. This lack of visibility, combined with vehicles traveling at high speeds on Colindeep Lane and the sharp bend on the road can cause drivers to fail to see each other in time to brake.
- 1.8.2 This proposal would involve on a repositioning stop lines by narrowing lanes on Colindeep Lane. This will allow drivers exiting Colin Crescent to see further down Colindeep Lane (a minimum of 40 meters as recommended by guidance), and vice versa.
- 1.8.3 Various possible alternatives have been considered for implementing the layout described above:
- 1.8.4 Option 5A - Road Markings, including solid red areas: the existing islands will be retained, and new road markings will indicate the new areas off-limits to drivers.

Advantages:

- Improved sight lines
- Reduction of lane width on Colindeep Lane will discourage drivers from speeding
- Low implementation cost
- Flexibility, as it allows larger vehicles to occasionally drive over road markings if required to help manoeuvre the sharp turns.

Disadvantages

- Reduction of lane width on Colindeep Lane may make turning slightly more difficult to exceptionally long vehicles
- Drivers may choose to regularly drive over markings.

1.8.5 Option 5B - Build outs: the existing islands will be removed, and new build outs and traffic islands will delimit the new junction layout.

Advantages:

- Improved sight lines
- Reduction of lane width on Colindeep Lane will discourage drivers from speeding
- Drivers forced to respect new layout
- Drivers waiting to exit Colindeep Lane protected by physical barrier of new traffic island

Disadvantages

- Reduction of lane width on Colindeep Lane may make turning slightly more difficult to exceptionally long vehicles
- New kerbs may increase risk of small collisions by careless drivers that may not reduce their speed. To mitigate this risk, additional traffic calming measures may be located ahead of the bend
- No flexibility when compared to road markings. Detail design will be subjected to modelling to ensure large vehicles can turn. This may alter the preliminary design presented.
- Higher implementation cost when compared to road markings.

1.8.6 Option 5C – Combination of road markings and build outs:

Advantages:

- Improved sight lines
- Reduction of lane width on Colindeep Lane will discourage drivers from speeding
- Kerbs force drivers to respect new layout
- Lower implementation cost when compared to build outs only

Disadvantages

- Higher implementation cost when compared to road markings only
- Higher flexibility

## **1.9 Measure 6 - Vertical speed deterrents**

(Refer to drawing number BC/000143-15-07\_01)

1.9.1 We are aware these are in principle considered not desirable in the borough. However, this may be a very efficient form of speed reduction, with limited negative impact as there are no residential properties within close proximity.

1.9.2. Two options have been considered:

1.9.3 Option 6A - Speed Cushions: these will be placed at the locations where speeding is more severe (refer to Appendix 1), and more likely to lead to accidents, as shown by survey and accident data. In particular, a pair of

speed cushions may be located either side of the proposed pedestrian refuge, ahead of the bend (for vehicles travelling in a south-westerly direction).

Advantages:

- Very effective method of speed reduction
- Accommodates most road users (when compared to wider speed tables) as larger vehicles' wheels are wider apart
- Lower risk of vehicles mounting the footway when compared to raised table
- Lower cost when compared to raised table

Disadvantages

- May still cause discomfort to road users, and increased pollution if drivers choose to speed and brake instead of keeping to the advised speed

1.9.4 Option 6B – Rumble device: to be positioned ahead of the bend for vehicles travelling in a south-westerly direction (refer to Appendix 1), this measure would serve the double purpose of alerting road's grip, which in turn would slow vehicles down.

Advantages:

- Effective method of speed reduction
- As explained, serves double purpose

Disadvantages

- May still cause discomfort to some road users (such as cyclists)
- May cause discomfort to nearby residents due to noise

**1.10 Measure 7 - High friction coloured surface**

(Refer to drawing number BC/000143-15-07\_01)

1.10.1 A high friction surface may be applied to the section of carriageway approaching the bend from a north-westerly direction, where a large portion of accidents were recorded. This will improve vehicle traction and alert drivers to potentially hazardous conditions.

1.0.2 Note for better and longer lasting results, it is recommended to remove and relay a shallow depth of carriageway prior to applying a high friction surface, which will increase the cost of the treatment.

Advantages:

- Improved skid resistance and contribute to raise awareness of oncoming hazards, encouraging drivers to reduce speed

Disadvantages

- Relatively high cost
- Localized effect

**1.11 Measure 8 – Refreshing of road markings**  
(Refer to drawing number BC/000143-15-07\_01)

1.11.1 Making the road layout more visible will assist drivers to remain within their lanes.

1.11.2 Option 8A – Refresh as existing:

Advantages

- Low cost

Disadvantages

- No significant disadvantages

1.11.3 Option 8B – Refresh existing with improvements: such as introducing a solid red background to the centre hatching, and speed roundels (also with a red background)

Advantages

- More visible
- Lower cost than introducing kerbed traffic islands

Disadvantages

- Higher implementation and maintenance cost than refreshing as existing

1.12 The Committee should consider that vertical traffic calming measures are generally not favoured in the Borough but are appropriate in certain situations. This was confirmed in a report on Traffic Calming to the Environment Committee on 14th July 2016. The Environment Committee, having considered the report on the Traffic Calming resolved:

*‘That the Environment Committee noted the current approach to Traffic Calming Measures as set out in this report. That the Environment Committee approved the following Policy Wording:*

*‘Generally this Council opposes the use of vertical traffic calming measures, but acknowledges that calming measures can sometimes be appropriate. Officers should not, though, propose these apart from in exceptional circumstances and with all such decisions reserved for Members, and that Members be consulted with from the earliest opportunity, if required’.*

1.13 It is the officers opinion that this is an exceptional circumstance and cushions should be considered. Ward Members have been consulted on the Options in Measure 5. No responses were received.

**Summary of Measures**

1.14 All of the above individual measures, as summarised in the table below, are deemed suitable solutions to the issues in Colindeep Lane. However, they are not all compatible with each other.

1.15 The following combinations of measures are considered by officers to be the most cost-effective to address the traffic and safety issues on this section of Colindeep Lane, with Proposal 5 being the preferred option:

	<b>Brief Description</b>	<b>Indicative Cost</b>	<b>Proposal 1</b>	<b>Proposal 2</b>	<b>Proposal 3</b>	<b>Proposal 4</b>	<b>Proposal 5</b>
<b>Measure 1</b>	Improve signage	£6,800	x	x	x	x	x
<b>Measure 2</b>	Remove excess vegetation encroaching on the footway	£700	x	x	x	x	x
<b>Measure 3</b>	Reduce dual carriageway section to one lane in each direction	£4500	x	x	x	x	x
<b>Measure 4</b>	Traffic island/ pedestrian refuge	£3000					x
<b>Measure 5 *</b>	<b>5A</b> - Changes to junction - build outs	£12,000	x	x	x	x	x
	<b>5B</b> - Changes to junction - road markings and red background	£1,000					
	<b>5C</b> - Combination of Options A and B	£1,000 – £12,000 (TBC at detailed design stage)					
<b>Measure 6</b>	<b>6A</b> - Speed cushions	£2,500					x
	<b>6B</b> – Rumble devices	£10,000			x		
<b>Measure 7</b>	High friction coloured surface	£19,000				x	x
<b>Measure 8</b>	<b>8A</b> - Refreshing of road markings	£2,500					
	<b>8B</b> – Refreshing of road markings with improvements	£5,500	x	x	x	x	x

1.16. Should committee proceed with the preferred measures indicated above, the scheme would have a combined works cost of £43,000 to £54,000 (depending on the junction design). This would, in turn result in the following cost estimates (assuming the most expensive scenario):

Detailed Design	£4,500
Safety audit, surveys etc	£2,500
Consultation	£3,500
Construction (works cost)	£54,000
Implementation, supervision and post implementation costs	£4,000
<b>Subtotal</b>	<b>£68,500</b>
Contingency*	0
<b>TOTAL</b>	<b>£68,500</b>

## 2. REASONS FOR RECOMMENDATIONS

- 2.1 The improved signage and road markings will provide drivers with sufficient notice to reduce their speed and become aware of oncoming hazards.
- 2.2 Removing excess vegetation and altering the layout of the junction will improve visibility and increase safety of road users
- 2.3 Reducing the dual carriageway to one lane, together with the speed cushions and high friction surface will force drivers to reduce their speed.

## 3. ALTERNATIVE OPTIONS CONSIDERED AND NOT RECOMMENDED

- 3.1 The following measures were considered and not recommended in the previous report to the Hendon Area Committee on 2 May 2017 and within this report:
  - Zebra crossing – this option is not recommended as surveys show traffic travels above the recommended speed for an uncontrolled pedestrian crossing.
  - Speed table –this would be an effective way to reduce speed of traffic, and could be adapted as a crossing in the future. However, due to the proximity to the steep slop south-west of Colindeep Lane, officers consider the risk and severity of vehicles mounting the footway after driving over the table to be unacceptably high, and therefore do not recommend this measure at this location.
  - Mini roundabout – this option is not recommended as traffic on the minor road (Colin Crescent) falls under the recommended minimum for a mini roundabout to act as a traffic calming feature.
  - Bus stop – this option is no longer being considered as, as part of this scheme as, there is no timescale available for TfL to implement this.
  - Traffic signals (pelican crossing or signalised junction) – this option is not recommended as traffic volumes (in particular from Colin Crescent) and pedestrian volumes are too low.

- Widening of footway - this option is not recommended as the width of the road does not appear to be the cause for speeding issues on the road.

#### **4. POST DECISION IMPLEMENTATION**

- 4.1 Following the Hendon Area Committee's agreement, detailed design will be finalised and statutory consultation undertaken with schools, residents, Metropolitan Police and emergency services would be undertaken and detailed design of the proposal would be completed, with a view to implementing the proposal during the 2017/18 financial year, subject to the processes outlined in items 5 and 6 of 'Recommendations' above.

#### **5. IMPLICATIONS OF DECISION**

##### **5.1 Corporate Priorities and Performance**

- 5.1.1 The proposals here will particularly help to address the Corporate Plan delivery objectives of "a clean and attractive environment, with well-maintained roads and pavements, flowing traffic" and "a responsible approach to regeneration, with thousands of new homes built" by helping residents to feel confident moving around their local area on foot, and in a vehicle and contribute to reduced congestion.

- 5.1.2 The proposal also helps address road traffic casualties.

##### **5.2 Resources (Finance & Value for Money, Procurement, Staffing, IT, Property, Sustainability)**

- 5.2.1 At feasibility stage, detailed cost estimates cannot be provided. Notwithstanding this, indicative costs have been provided bases on schemes of a similar nature.

- 5.2.2 Transport for London (TfL) provide core funding for implementation of a borough Local Implementation Plan (LIP) 2017/2018 programme. It includes a "Corridors, Neighbourhoods and Supporting Measures" programme for addressing a range of transport issues. This amounts to £3.413m, and Environment Committee approved the allocation of this on 15 March 2017. A sum of £400k was allocated for Accident Reduction Schemes. The proposals in this report would be introduced using funding from that programme at a cost of upto £68,500 depending on the agreed measure..

- 5.2.3 The estimated implementation costs of this recommendation are (based on prices contained in Year 4, Volume 4 Adjusted Rates – London Highways Alliance Contract (LoHAC) Northwest.

- 5.2.4 Future maintenance of electrical apparatus shall pass to Barnet Lighting Services, the PFI Contractor, who will charge a commuted sum for the maintenance – the cost of this can be absorbed within existing Council revenue budgets.

5.2.5 The work will be carried out under the existing PFI (electrical) and LoHAC (non electrical) term maintenance contractual arrangements.

### 5.3 **Social Value**

5.3.1 None in the context of this report.

### 5.4 **Legal and Constitutional References**

5.4.1. The Council's Constitution, in Article 15 headed "Responsibility for Functions" (Annex A) states that Area Committees may take decisions within their terms of reference provided it is not contrary to Council policy and can discharge various functions, including highway use and regulation, within the boundaries of their areas in accordance with Council policy and within budget.

5.4.2. The Traffic Management Act 2004 places obligations on authorities to ensure the expeditious movement of traffic on their road network. Authorities are required to make arrangements as they consider appropriate for planning and carrying out the action to be taken in performing the duty.

### 5.5 **Risk Management**

5.5.1 None in the context of this report. Risk management may be required for work resulting from this report.

### 5.6 **Equalities and Diversity**

5.6.1 The Equality Act 2010 outlines the provisions of the Public Sector Equalities Duty which requires Public Bodies to have due regard to the need to:

- eliminate unlawful discrimination, harassment and victimisation and other conduct prohibited by the Equality Act 2010
- advance equality of opportunity between people from different groups
- foster good relations between people from different groups.

5.6.2. Proposed changes associated with the proposal are not expected to disproportionately disadvantage or benefit members of the community.

### 5.7 **Consultation and Engagement**

5.7.1. A public consultation will be carried out on the proposals and details of the proposals will also be outlined on the council's website.

### 5.8 **Insight**

5.8.1. The options developed for the scheme were informed through analysis of injury accident data, third party surveys and site observations.

## **6. BACKGROUND PAPERS**

- 6.1 Planning permission and Section106 Agreement for North London Grammar School, Planning Reference No. H/02535/12.
- 6.2 Agenda and minutes - Hendon Area Committee, Wednesday 6th July2016  
<http://barnet.moderngov.co.uk/ieListDocuments.aspx?CId=717&MId=8660&Ver=4>
- 6.3. Agenda and minutes - Hendon Area Committee Wednesday 26th October, 2016  
<http://barnet.moderngov.co.uk/ieListDocuments.aspx?CId=717&MID=8657>
- 6.4 Agenda and draft minutes - Hendon Area Committee, 2 May 2017; At draft stage,  
<http://barnet.moderngov.co.uk/ieListDocuments.aspx?CId=717&MId=9129&Ver=4>
- 6.5 Agenda and minutes – Environment Committee 14 July 2016  
<http://barnet.moderngov.co.uk/ieListDocuments.aspx?CId=717&MId=9129&Ver=4>

