

Leicester
City Council

**WARDS AFFECTED
CITY WIDE
AYLESTONE/SAFFRON**

FORWARD TIMETABLE OF CONSULTATION AND MEETINGS:

Cabinet

4th June 2001

ROAD SAFETY ON LOCAL DISTRIBUTOR ROADS.

Report of the Director of Environment, Development and Commercial Services

1 Purpose of Report

The Cabinet is asked to consider a new policy for traffic calming on local distributor roads and agree in principle a scheme for Wigston Lane which includes road humps.

2 Summary

- 2.1 Since 1991 the City Council has had a programme to introduce traffic calming in residential areas in the city. To date, almost 60 schemes have been constructed covering 336 streets and having a total length of over 92 kilometres (or 58 miles). This compares with a total length of unclassified built-up roads of 590 kilometres.
- 2.2 Priorities for traffic calming since 1993 have been determined using "accidents per kilometre" to ensure that resources are targeted to those areas where they will have the most effect in reducing casualties. Concerns were expressed by the emergency services and bus operators following the introduction of the first schemes. As a consequence, it has been City Council policy since 1995 not to construct road humps on distributor roads.
- 2.3 Experience of traffic calming in Leicester confirms that the most effective way of reducing vehicle speeds below 20mph is the use of road humps and will be the preferred option in residential areas. Chicanes, speed cushions, mini-roundabouts and priority workings have been constructed on residential distributor roads. Whilst they have resulted in reduced vehicle speeds they are not as effective as road humps.
- 2.4 This difference in effectiveness is also reflected in accident reduction. In areas where humps have been constructed accidents are now at 31% of the level before traffic calming, whilst the use of other methods results in accidents being about 82% of the level before, with chicanes and priority workings being more effective than refuges and lining schemes.
- 2.5 Recently a traffic calming scheme was constructed on Wigston Lane. As Wigston Lane is a strategic route for access for the emergency services, the scheme does not include road humps. The scheme includes pedestrian refuges, centre line marking, cycle lanes, alterations to the Belvoir Drve East/Wigston Lane junction and improved lining and signing

in the vicinity of Montrose School.

- 2.6 Measurement of vehicle speeds on Wigston Lane since the scheme was completed show that the scheme has had little if any effect upon vehicle speeds. Over 89% of vehicles are still travelling at speeds above 30 mph. The speed of traffic is inappropriate for Wigston Lane given pedestrian activity outside the school, which is located at the brow of a hill causing visibility problems when approaching.
- 2.7 Parents of pupils at Montrose School are still concerned about the speed of traffic and road danger and have requested that additional features such as a pedestrian crossing and road humps be installed.
- 2.8 This report asks Cabinet to consider changing the existing Council policy on traffic calming on residential distributor roads to allow the judicious use of road humps. and to agree in principle the a scinallation of road humps on Wigston Lane. A separate report on the petition for the request for the pedestrian crossing to be reassessed is to be prepared for consideration by Highways and Transportation Scrutiny Committee.

3 Recommendations

It is recommended, in respect of local distributor roads, that Cabinet:

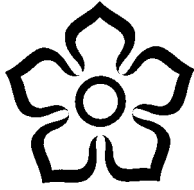
- 3.1 Confirms the Council's existing policy that road humps will not normally be used on local distributor roads, and that, traffic calming, where proposed, will normally be implemented using other measures, such as chicanes, priority workings, pedestrian refuges and signing and lining.
- 3.2 Agrees that only in exceptional circumstances, where other measures are unlikely to achieve or have not achieved the desired reductions in accidents on a local distributor road, will consideration be given to the judicious use of road humps as part of a package of measures.
- 3.3 Agrees that, when such exceptional circumstances arise, a report requesting approval in principle of a scheme using road humps will brought to Cabinet, following initial consultations with the emergency services and bus operators.
- 3.4 Agrees in principle the scheme for Wigston Lane (shown in Appendix 4) and that formal consultations be undertaken with the emergency services, bus operators and local residents.

4 Financial and Legal Implications

No legal implications directly arise from this report.

The scheme on Wigston Lane (Cost £40,000) will be funded from the supplementary credit approval for Integrated Transport.

5 Report Author/Officer to contact: Michael Jeeves x6529



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4th June 2001

ROAD SAFETY ON LOCAL DISTRIBUTOR ROADS.

Report of the Director of Environment & Development Supporting Papers.

1. **Report**
- 1.1 Traffic Calming in Leicester
- 1.2 Effective traffic calming in residential areas, without the use of road closures, has been possible since the Government issued new regulations governing Road Humps in 1990 and other traffic calming measures (such as chicanes, overrun areas, road narrowings etc) in 1992.
- 1.3 In all 336 residential streets in the city have now been traffic calmed, about 92 kilometres. This compares with a total length of unclassified built-up roads of 590 kilometres. The number of accidents in the first 36 schemes to be completed has been reduced to 42% of their previous level.
- 1.4 It is accepted that, whilst road humps have proved to be most effective at cutting speeds and, hence, accidents, they have, by and large, only proved acceptable in residential side streets.
- 1.5 Since 1995 because of concerns raised by the emergency services and bus operators about the use of road humps on residential distributor roads, an alternative range of traffic calming options has been used, including the use of overrun areas, chicanes, mini-roundabouts, pedestrian refuges and footway extensions but excluding road humps.
- 1.6 The Table below shows how effective various types of schemes have been in reducing accidents. The Table in Appendix 1 lists, where available, before and after speeds for traffic calming schemes.

Table 1 - Effectiveness of different types of traffic calming measures

Type of scheme	Number of schemes	Average change in accidents
With Road humps	27	-69%
Without road humps	7	-18%
All Schemes	34	-58%

- 1.7 It can be seen that whilst traffic calming, both with and without road humps, can reduce the number of accidents, the use of road humps is far more effective, than the alternatives. Other surveys show that this is because road humps are far better at reducing vehicle speeds.
- 1.8 The effectiveness of using only refuges, cycle lanes and signing and lining can be seen on Wigston Lane where almost 90% of vehicles are still travelling at speeds greater than 30 mph. The speed of traffic is inappropriate for Wigston Lane given pedestrian activity outside the school and the location of the school.
- 1.9 Parents of pupils at Montrose School are still concerned about the speed of traffic and road danger and have requested that additional features such as a pedestrian crossing and road humps be installed. A petition has been received asking that the request for the pedestrian crossing be reassessed. Receipt of the petition was reported to Highways & Transportation Scrutiny Committee on 16th May. A report will be prepared for a future meeting of Highways & Scrutiny Committee. The traffic and pedestrian counts have been carried out to reassess the request. If the installation of a pedestrian crossing is justified it could be included as part of the traffic calming proposals.
- 1.10 Current City Council Policy on Traffic Calming Local Distributor Roads
- 1.11 In September 1995 the Urban Management Sub-Committee agreed that, in the light of objections from bus companies and the fire service, as well as concerns about the risk of traffic being diverted on to less suitable streets, measures other than road humps, such as chicanes, pedestrian refuges and speed cameras, will normally be proposed on distributor roads.
- 1.12 The Committee confirmed that in view of their effectiveness road humps would normally be proposed for residential side streets.
- 1.13 In January 1999 the priority list for traffic calming was reviewed and the Director of Environment and Development was authorised to prepare schemes with a guideline first year rate of return of 100% or more for inclusion in future bids for funding. 16 residential distributor roads and 24 residential areas were included in the priority list. All residential roads and areas which have not yet been traffic calmed were prioritised for traffic calming

using accident statistics for 1995 – 1997.

- 1.14 The Committee also agreed that, in the light of concerns expressed by the Fire and Rescue Service and the Ambulance Service, discussions should take place to determine a policy for traffic calming on residential distributor roads and main routes through residential areas, and that a report setting out the policy be presented for approval by Environment & Development Committee following these discussions.
- 1.15 Discussions have taken place with the emergency services but it has not been possible to agree a policy for traffic calming residential distributor roads. The emergency services would prefer to deal with each scheme individually. However they would accept the judicious use of road humps on local distributor roads if they were part of a package of measures subject to their use being justified in terms of casualty reduction.
- 1.16 The emergency services have issued their own joint statement, a copy of which is attached as Appendix 2. Their position will be taken into account in future consultations.
- 1.17 Proposed Policy
- 1.18 Measures other than road humps, such as chicanes, priority workings, pedestrian refuges and signing and lining will normally be proposed on local distributor roads. However, if in exceptional circumstances where other measures are unlikely to achieve or have not achieved the desired reductions in accidents on a local distributor road, consideration will be given to the judicious use of road humps as part of a package of measures.
- 1.19 Officers as part of the initial consultations with the emergency services and bus operators will produce a statement to justify the installation of road humps on specific local distributor roads. The statement will include summaries of the volume and the speed of traffic, the number of casualties, (particularly involving children and other vulnerable road users), and the type of frontage. In addition in developing the details of a scheme consideration will be given to the types of accidents occurring and the most effective measures to prevent such accidents. Such a statement for Wigston Lane is shown at Appendix 3.
- 1.20 Following these initial discussions with the emergency services and bus operators, a report requesting approval in principle of a scheme using road humps on the local distributor road will be prepared for Cabinet. The report will set out the reasons for using road humps on the local distributor road.
- 1.21 Appendix 4 contains a proposal to traffic calm Wigston Lane. The scheme will cost about £40,000. This would be the first local distributor road which will be considered for road humps under the new policy. The Cabinet is asked to agree the principle of installing road humps on Wigston Lane and for officers to carry out the necessary consultations with the emergency services in line with the new policy.

1.22 Implications of policy change.

1.23 When the traffic calming priority list is reviewed in January 2002, local distributor roads which have already been treated using refuges, lining or priority working will be included in the priority list.

1.24 If road humps can be justified on local distributor roads to be traffic calmed as part of this years programme, the additional costs incurred is likely to be minimal compared with the installation of other measures.

1.25 The emergency services have concerns that the introduction of road humps could adversely affect emergency service times and therefore could affect their statutory duties. To maintain a good working relationship with the emergency services and bus operators, it will therefore be important that road humps are only used on local distributor roads where the road safety benefits can be justified.

1.26 Legal Implications

1.27 Current Government Regulations - Road Hump Regulations

1.28 Before 1999 when new Road Hump Regulations came into force it was not possible to install road humps on principal roads. The new regulations allow the use of road humps on any road which is subject to a 30mph speed limit. In addition to the consultations outlined below the Highway Authority has a responsibility to consult with users of the highway. These consultations are undertaken by leafleting all frontages affected by the scheme often supplemented with exhibitions and public meetings. Where the scheme includes road humps or speed cushions the locations of features are advertised in the Leicester Mercury and on-street and frontagers can make objections to the scheme. There is a requirement to advertise road humps or speed cushions in a local newspaper and place notices at appropriate points on the highway.

1.29 The basic types of road hump covered by the regulations, include speed tables which are individual road humps, junction tables where the whole junction is on a raised table and speed cushions where there are gaps to allow large buses and fire engines to travel over with minimal discomfort.

2 Consultations and Research.

2.1 Consultations with the Emergency Services.

2.2 The emergency services are consulted on all traffic calming schemes in the city. Whilst there has always been a requirement to consult with the Chief Constable, the need to consult with the Chief Fire Officer and the Chief Ambulance Officer was only included in the regulations in June 1996.

2.3 Traffic Advisory Leaflet 3/94 included a code of practice for consulting with the Fire and Ambulance Services about traffic calming. The code of practice which had been agreed the Joint Committee on Fire Brigade Operations and the Department of Health's

Ambulance Policy Advisory Group, the Department of Transport and the Local Authority Associations was as follows:

- 1 Emergency services and highway authorities to establish a dialogue on broad principles upon which traffic measures may be introduced and to consult on individual schemes at an early stage in their design.
 - 2 Road hierarchy and emergency services strategic routes to be integrated.
 - 3 Variety of traffic calming measures to be determined and agreed for different roads bearing in mind impact on response times.
 - 4 Consider need for and, where appropriate, implement monitoring of journey times.
 - 5 After installation, conduct review to determine performance of calming measures and the impact on journey times, where monitored.
 - 6 Confirm measures agreed for use on different roads, or refine measures by further action from Stage 3.
- 2.4 City Council officers hold regular meetings with the emergency services to discuss traffic calming schemes and have a broad agreement on the types of measures on different types of road.
- 2.5 Unfortunately it has not been possible to agree a road hierarchy with the emergency services as they would prefer to deal with schemes on an individual basis. However, in discussions with the emergency services they have indicated that they would not rule out the use of road humps on local distributor roads if the City Council can justify their use in terms of casualty reduction and it can be demonstrated that other measures have either been used and not worked or been investigated and cannot be justified. .
- 2.6 To assist in the process the emergency services have been supplied with the list of residential distributor roads in the traffic calming priority list, and have been requested to identify other important routes in the city.
- 2.7 Consultations with Bus Operators.
- 2.8 As with the emergency services, bus operators are consulted in the early stages of a scheme and there is general agreement about the type of measures which can be used on different routes. The major routes for bus operators are similar to the emergency services important routes. In general the use of speed cushions has been accepted on major bus routes in preference to other types of road hump.

2.9 What other Authorities have agreed

- 2.10 Hull City Council have agreements with the ambulance service, fire service and police and bus operators which specifies the type of features which can be used on different types of road. In Hull speed cushions have been used extensively on distributor roads and there has been a significant reduction in accidents on such routes.
- 2.11 The London Borough Authorities have produced guidelines for traffic calming on bus routes which have been agreed with bus operators in London. The guidelines give technical advice with regard to what would be acceptable to bus operators.
- 2.12 The issue of traffic calming and the emergency services is to be discussed at the next meeting of the East Midlands Accident Reduction Working Group (all Highway authorities in the East Midlands are represented on the working group as well as GOEM and the Highway Agency) in mid June.

3 **Implications.**

OTHER IMPLICATIONS	YES/NO	PARAGRAPH REFERENCES WITHIN SUPPORTING PAPERS
Equal Opportunities	NO	
Policy	YES	1.18, 1.19
Sustainable and Environmental	NO	
Crime and Disorder	YES	1.6,1.7
Human Rights Act	NO	

4 **Background Papers**

- 4.1 The Highways (Road Humps) Regulations 1990
- 4.2 The Highways (Road Humps) Regulations 1996
- 4.3 The Highways (Road Humps) Regulations 1999
- 4.4 Traffic Advisory Leaflet 3/94 - Fire and Ambulance Services Traffic Calming:A Code Of Practice
- 4.3 Report to Planning Committee: Traffic in Residential Areas 13th June 1993.
- 4.4 Report to Planning Committee: Traffic in Residential Areas 12th September 1995.

4.5 Report to Urban Management Sub-Committee Traffic Calming in Residential Areas 6th January 1999.

4.5 London Boroughs - Traffic Calming measures for Buses

CD/TA/MFJ/TA05070 (M. F. Jeeves, Extn 6529)

APPENDIX 1 - TRAFFIC CALMING SCHEMES SPEED REDUCTION

Scheme	Feature	Speeds Before		After		Change	
		Mean	85%ile	Mean	85%ile	Mean	85%ile
Melbourne Road	Road Humps - 100mm	24	28	16	19	-8	-9
Mere Road	Road Humps - 100mm	27	32	16	19	-11	-13
Beaumanor Road	Road Humps - 75mm	26	32	18	21	-8	-11
Maidstone Road	Road Humps - 50mm	31	35	21	23	-10	-12
Hillsborough Rd	Between Cushions	38	43	22	32	-16	-11
Hillsborough Rd	At Speed Cushions	38	43	24	32	-14	-11
Pasley Road	Between Cushions	36	39	22	28	-14	-11
Pasley Road	At Speed Cushions	36	39	20	27	-16	-12
Winstanley Drive	At Junction Table	31	35	15	21	-16	-14
Winstanley Drive	Off Junction Table	31	35	21	27	-10	-8
Winstanley Drive	Between features	31	35	20	26	-11	-9
Winstanley Drive	At Speed Cushions	31	35	16	23	-15	-12
Wycombe Road	Between Cushions	33	38	19	24	-14	-14
Wycombe Road	At Speed Cushions	33	38	16	25	-17	-13
Strasbourg Drive	Between Chicanes	31	35	29	33	-2	-2
Strasbourg Drive	Through Chicanes	31	35	21	25	-10	-10
Strasbourg Drive	Between Cushions	36	40	25	29	-11	-11
Strasbourg Drive	At Speed Cushions	36	40	15	26	-21	-14
Thurncourt Road	Refuges, Mini Rbts	28	32	26	29	-2	-3
St Saviours Road	Refuges, Mini Rbts	28	31	25	29	-3	-2
Gleneagles Ave	Refuges, Mini Rbts			34	39		
Kimberley Road	Road Humps -75mm	27	32	20	25	-7	-7
Devana Road	Road Humps - 75mm	20	26	15	22	-5	-4
Aikman Avenue	Between Refuges	28	32	28	33	0	1
Aikman Avenue		29	34	34	36	5	2
Wigston Lane	Between refuges	37	41	35	39	-2	-2

Appendix 2

Joint Statement of the Emergency Services on road humps

The emergency services are supportive of traffic calming to reduce road casualties. However the use of speed reducing features, particularly road humps, must be balanced against the need for emergency access.

- 1 If traffic calming is proposed on a road that is a primary route for any of the emergency services, there will be strong objections.
- 2 If traffic calming is proposed on a route that is an important route for any of the emergency services,
 - a) the highway authority will be asked to prove that there is a specific problem on that road that would be addressed by traffic calming

and
 - b) the highway authority will be asked to show that vertical traffic calming features are the only option.

If a) and b) are satisfied, the emergency services may accept the minimum number of 65mm high road humps with a 1:15 gradient. Each case will be treated on its merits and there may still be objections depending on the particular circumstances.

- 3 If traffic calming is proposed on a road that is not important to any of the emergency services, 75 mm high road humps may be acceptable, but a height of 65mm would be preferred.

Appendix 3 - Justification for Road Humps on Wigston Lane.

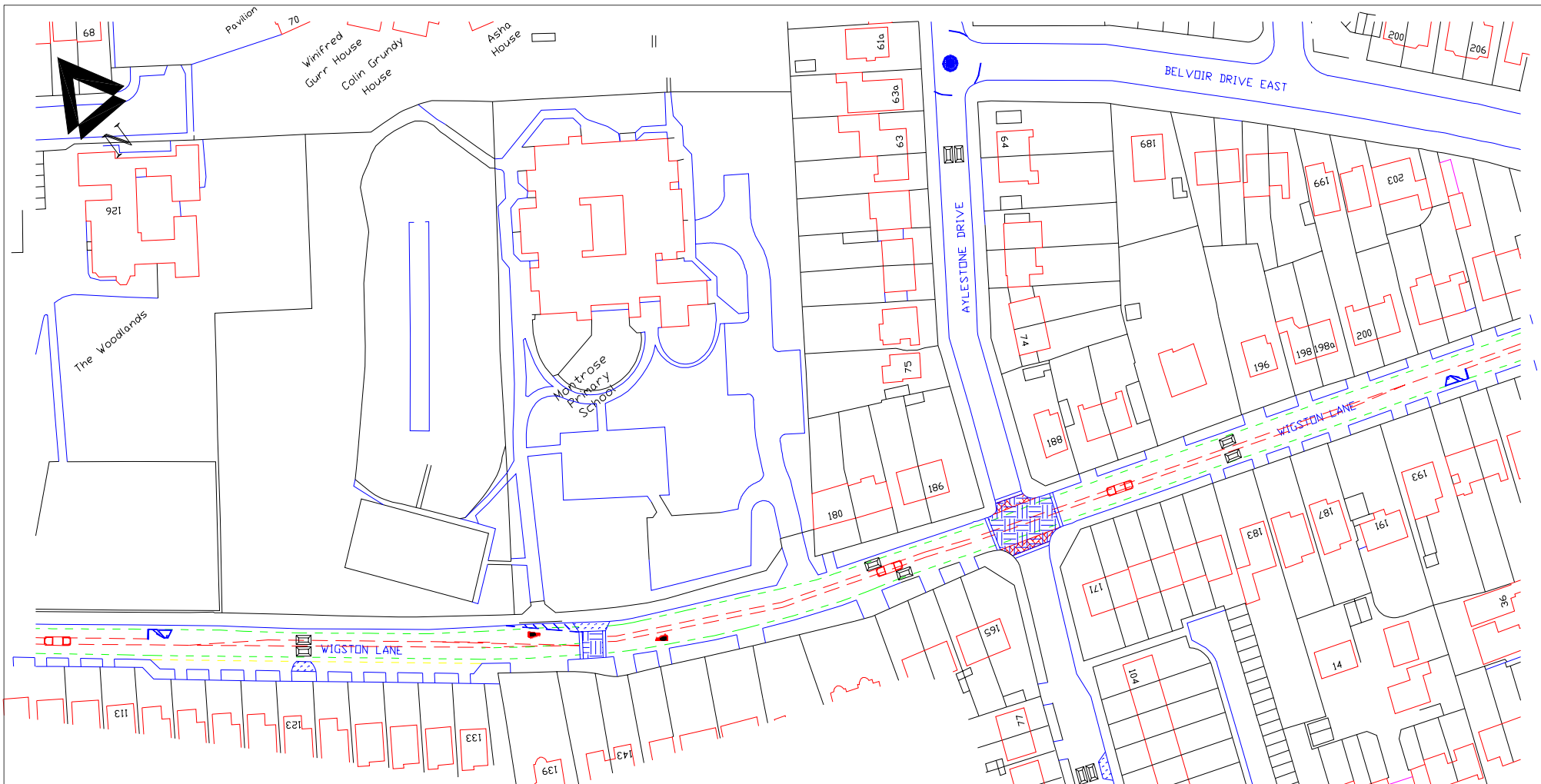
- 1) Between 1st January 1996 and 1st October 2000, there were 28 personal injury accidents on Wigston Lane, 6 of the accidents involved pedestrians and two were cyclists. Of the 6 pedestrians 4 were children and 2 were adults.
- 2) 12 of the accidents were at the junction of Aylestone Drive/Wigston Lane.
- 3) In February 2001 a traffic calming scheme was completed on Wigston Lane which included refuges, centre line hatching, cycle lanes and improved signing. Prior to its introduction over 95% travelled at over 30 mph outside the school which is the speed limit, the introduction of the scheme has reduced this to 86%. The 85 percentile speed is still 39mph. Additional speed tests carried out on Wigston Lane away from the school confirm this.
- 4) The speed of traffic is inappropriate for Wigston Lane given that it is heavily used by children and parents walking to Montrose School and the school is located at the brow of a hill causing visibility problems when approaching.

Proposals. A draft scheme has been proposed which will reduce vehicle speeds outside the school, and reduce accidents at the Aylestone Drive/Wigston Lane junction.



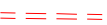








The proposed scheme includes the following features:

- 1) Junction table at Aylestone Drive/Wigston Lane.
- 2) Road hump outside the school where the School Crossing Patrol operates. Width of carriageway to be reduced by constructing a footway extension.
- 3) 5 sets of speed cushions Speed Cushions
- 4) Priority working as a speed reducing feature on approach to speed cushions on Wigston Lane.
- 5) Mini-roundabouts as speed reducing features on the approach to speed cushions on Aylestone Drive.


Conclusions. The proposed scheme will reduce vehicle speeds outside the school, and reduce accidents at the Aylestone Drive/Wigston Lane junction.



KEY

-  Imprint Area
-  Refuge
-  Hatch Markings
-  Cycle Lane
-  Proposed Speed Cushions
-  Proposed Kerb Build-out
-  Proposed road hump
-  Proposed Junction Table
-  Proposed Chicane
-  Proposed Mini-roundabout
-  Preformed School Sign

WIGSTON LANE TRAFFIC CALMING SCHEME

DATE	MAY 2001	 Leicester City Council PETER CONNELLY Director Of Commercial Services, Environment And Development
DRG. No.	TA/09128/A4	
ACAD	AED	
CHECKED	WFJ	
SCALE	NTS	
LETTER FILE	TA09128	
ACAD FILE	A4MONTROSE	