Author: Lee Wright
Ext: 38674

**Public**

**Agenda Item No. 4(b)**

**DERBYSHIRE COUNTY COUNCIL**

**MEETING OF CABINET MEMBER - HIGHWAYS, TRANSPORT AND INFRASTRUCTURE**

**11 February 2021**

Report of the Director – Economy, Transport and Environment

# OBJECTIONS TO THE A632 MATLOCK TO COUNTY BOUNDARY AND ADJACENT ROAD, 30MPH, 40MPH AND 50MPH SPEED LIMIT ORDER 2020

(1) **Purpose of Report** To inform the Cabinet Member of the objections received to the A632 Matlock to County Boundary and adjacent road, 30mph, 40mph and 50mph Speed Limit Review during the public advertisement.

(2) **Information and Analysis** It is proposed to consolidate all Speed Limit Traffic Regulation Orders pertaining to the A632 from its junction with the A615 in Matlock to its County Boundary with Nottinghamshire and its adjacent road of Vernon Lane in Kelstedge. There are no changes to the current speed limits or position of the existing speed limits. This technical adjustment will assist the Police with their enforcement duties. The proposals were advertised from 27 August 2020 until 18 September 2020. A copy of the consultation documents including the consultation email, press notice and plan is attached in Appendix A. Comments were received from Councillor Burfoot and Sutton cum Duckmanton Parish Council.

## Objections

Sutton cum Duckmanton Parish Council feels that this is an ideal time to review the speed limit on the A632 through Duckmanton for several reasons. The volume of traffic has greatly increased since the link road to junction 29A of the M1 was completed. The Parish Council is concerned that a proposed development will increase turning traffic and the number of pedestrians crossing the A632. The Parish Council has existing concerns regarding the junctions of the A632 with both Rectory Road and Longcourse Lane and that shunt collisions have continued to occur even after the installation of the interactive traffic sign that flashes a queue warning to oncoming traffic.

The Parish Council, on behalf of local residents, request that detailed consideration is given to the reduction in the speed limit from 40mph to 30mph

for an agreed stretch of the A632 at this location to include the new proposed junction, Rectory Road and Longcourse Lane as a minimum.

Councillor Burfoot has asked for the speed limit on the approach to Matlock to be reduced to 30mph. Councillor Burfoot cites the downhill approach from the north, the current speed of traffic, the accesses to Matlock Golf Club and the developments at Cardinshaw Road and Thornberries as reasons to extend the 30 mph speed limit to Wayside Farm/Cuckoostone Lane.

**Officer Comment**
The proposals, as advertised, enable more straight forward enforcement of the speed limits in place on the A632 and this process has been replicated on a number of other routes within Derbyshire.

In January 2006, the Department for Transport published guidance circular 01/2006 (now replaced by circular 01/2013) on setting local speed limits which sought a common national approach on the setting of limits, highlighting the need to manage speed in a way that is appropriate for the road function and local characteristics. Speed limits are not used to alert drivers to specific hazards, this is more effectively done through the use of traffic signs and road markings.

Speed limits are set in accordance with the County Council's own Speed Management Protocol (See Appendix B) and the criteria laid down by the Department of Transport, mentioned previously.

In order for Speed limits to be effective, they need to be appropriate for the nature of the road and how it appears to a road user. If a speed limit is seen by motorists as being unrealistically low, it is unlikely to lead to lower speeds.

It must be remembered that Speed limits are the maximum speed at which vehicles may legally travel, they are not target speeds: Motorists should always reduce their speed, when, for example:

- the road layout presents hazards, such as bends;
- you are sharing the road with pedestrians;
- there are adverse weather conditions; or
- you are driving at night – as it is harder to see other road users and possible obstructions.

In relation to Duckmanton, there are several warning signs already in place on both approaches to the Rectory Road junction. On the westbound approach there is the interactive sign that warns drivers they are approaching queueing traffic. Additionally, there are dragon's teeth road markings on both approaches to further highlight the area concerned. The appropriateness of the current 40mph can be reviewed separately to the current Order process,

which has been undertaken solely to make enforcement more straight forward.

In relation to Councillor Burfoot's comments relating to the approach to Matlock, the County Council is to promote a road safety scheme during 2021. This does include proposed changes to the speed limits on the section of the A632 from Chesterfield to Matlock. Should an extension of the 30mph speed limit be justifiable, it could be undertaken as part of that scheme and any changes identified would be subject to consultation.

**Local Member Comments**
Councillor Nigel Barker has been consulted with a request for comment by 18 January 2021. No response has been received.

(3) **Financial Considerations** There are no financial considerations associated with this report.

(4) **Other considerations**

In preparing this report the relevance of the following factors has been considered: legal, prevention of crime and disorder, equality and diversity, human resources, environmental, health, property, social value and transport considerations.

(5) **Key Decision** No

(6) **Call-In** Is it required that call-in be waived in respect of the decisions proposed in the report? No

(7) **Background Papers** Held on file within the Economy, Transport and Environment Department.

(8) **OFFICER'S RECOMMENDATIONS** That:

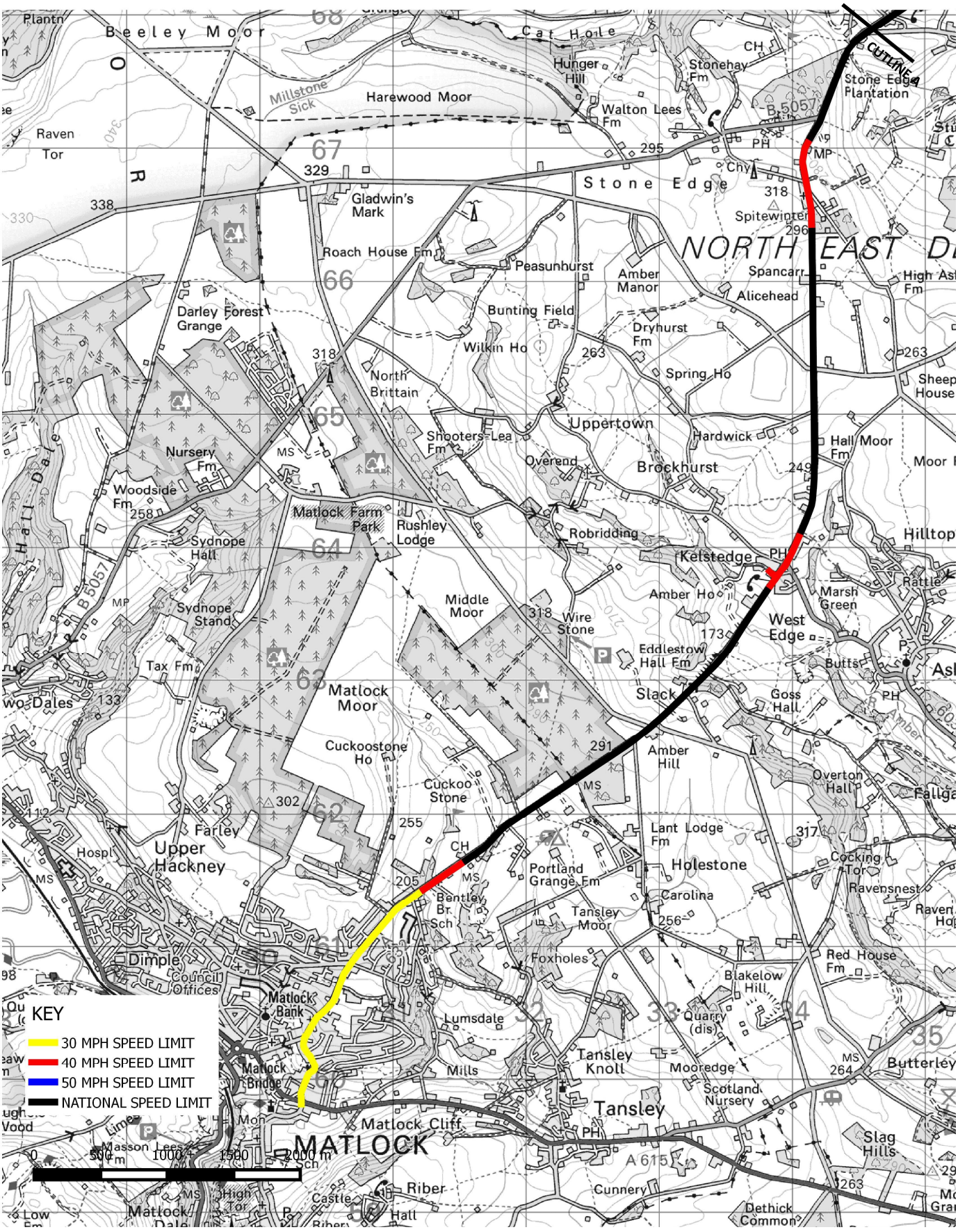
7.1 The extension of the 30mph speed limit, requested by Councillor Burfoot, be investigated as part of the A632, 2021-22 Capital Scheme.

7.2 The request of Sutton cum Duckmanton Parish Council for a reduction of the speed limit from 40mph to 30mph be investigated.

7.2 The objections be refused and the Order, as advertised, be made.

**Tim Gregory**
**Director – Economy, Transport and Environment**

# Appendix A

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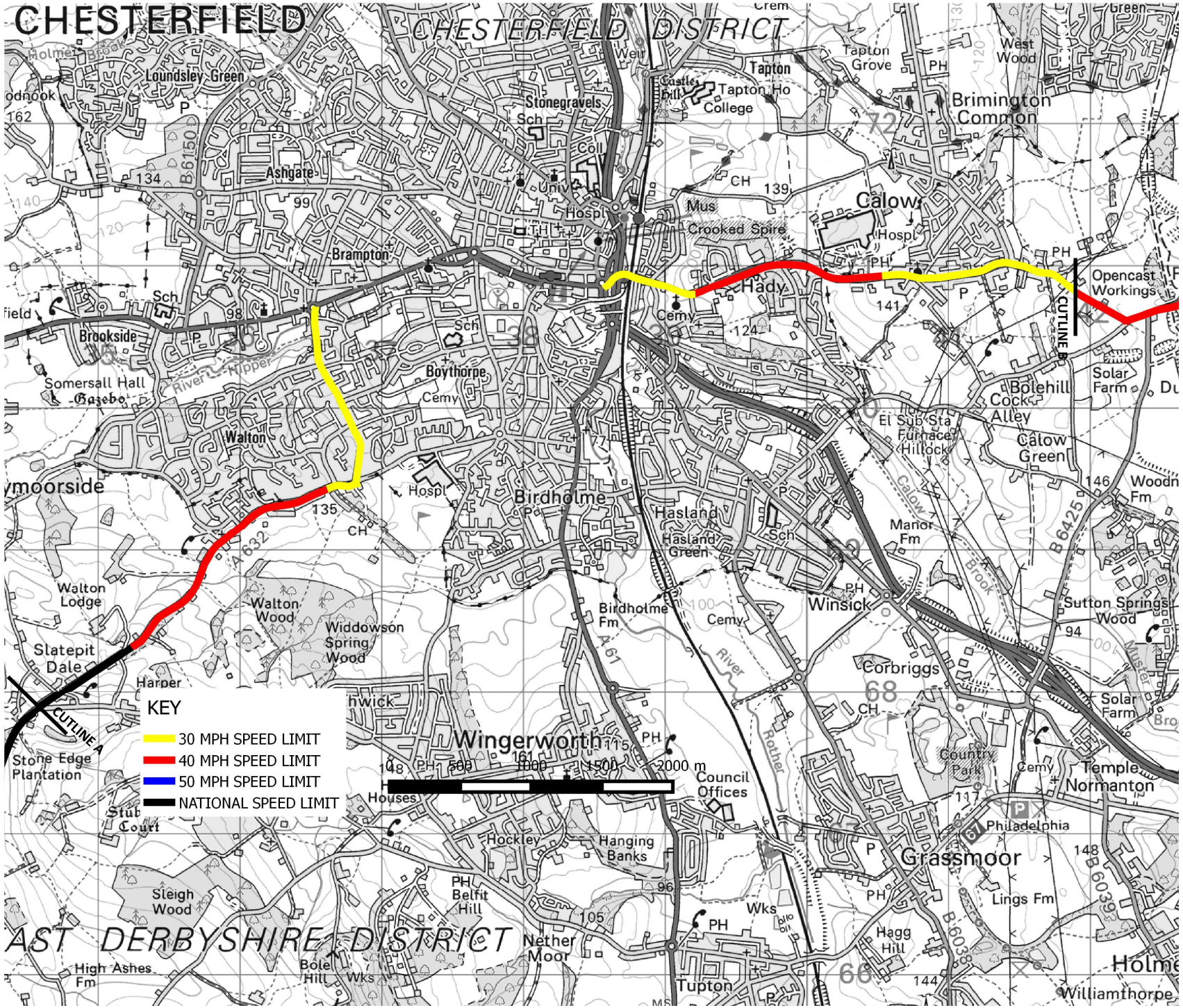
|---|---|---|---|
| DERBYSHIRE County Council Improving life for local people | A632 Speed Limit<br>Traffic Regulation Order<br>Plan 1 of 4 | © Crown copyright and database rights<br>Derbyshire County Council<br>Licence No. 100023251 2017 | SCALE: AS SHOWN<br>DATE: 07/09/17<br>DRAWING No.: A632/001<br>DRAWN BY: TF |

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DERBYSHIRE County Council
Improving life for local people

A632 Speed Limit
Traffic Regulation Order
Plan 2 of 4

| | |
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| SCALE | As stated |
| DATE | 07/09/2017 |
| DRAWING No. | A632/002 |
| DRAWN BY | TF |
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# THE DERBYSHIRE COUNTY COUNCIL

# ROAD TRAFFIC REGULATION ACT 1984

# (A632 MATLOCK TO COUNTY BOUNDARY AND ADJACENT ROAD)

# (30MPH, 40MPH AND 50MPH SPEED LIMIT) ORDER 2020

**Derbyshire County Council hereby gives notice that it proposes to make an Order under the Road Traffic Regulation Act 1984, the effect of which will be, in respects of roads in the Districts of Derbyshire Dales, North-East Derbyshire and Bolsover and the Borough of Chesterfield:**

**It is proposed to consolidate all Speed Limit Traffic Regulation Orders pertaining to the A632 from its junction with the A615 in Matlock to its County Boundary with Nottinghamshire and its adjacent road of Vernon Lane in Kelstedge. There will be no changes to the current speed limits or position of the existing speed limits. This technical adjustment will assist the police with their enforcement duties.**

**Due to ongoing Covid 19 social distancing requirements a copy of the Order and documents giving more detailed particulars of the Order are available on request by emailing highways.hub@derbyshire.gov.uk or calling 01629 538674 until 6 weeks after the Order is made. For plans, a copy of the notice and the statement of reasons please go to: www.derbyshire.gov.uk/council/public-and-statutory-notices/public-and-statutory-notices.aspx**

**All objections and other representations to the proposal must (a) be in writing (b) state the grounds on which it is made and (c) provide a name and address for contact purposes (d) be sent to the Interim Director – Economy, Transport and Environment, Derbyshire County Council, County Hall, Matlock DE4 3AG (For Attention of Traffic and Safety Team quoting reference Z3237) or email highways.hub@derbyshire.gov.uk by Friday 18th September 2020.**

**Dated:27th August 2020.**

**TIM GREGORY, INTERIM DIRECTOR – ECONOMY, TRANSPORT AND ENVIRONMENT, DERBYSHIRE COUNTY COUNCIL, COUNTY HALL, MATLOCK DE4 3AG**

| | |
|---|---|
| **From:** | ETE Traffic Management (Economy Transport and Environment) |
| **Subject:** | A632 Matlock to County Boundary and Adjacent Road 30mph, 40mph and 50mph Speed Limit Order 2020 |
| **Date:** | 26 August 2020 18:00:00 |
| **Attachments:** | A632 PermSpdLmt 2020 Newspaper notice.pdf<br>image001.jpg<br>A632 Plan 001.pdf<br>A632 Plan 002.pdf<br>A632 Plan 003.pdf<br>A632 Plan 004.pdf |

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Good afternoon,

Please find attached a copy of the press notice for the above proposals which were originally consulted upon a couple of years ago. There are no changes to the extents of the speed limits on site. The speed limits are shown on the attached plans. Copies of the newspaper notice and plans are to be sent to statutory consultees such as the affected Parish Councils in due course.

All objections and other representations to the proposal must (a) be in writing (b) state the grounds on which it is made and (c) provide a name and address for contact purposes (d) be sent to the Interim Director – Economy, Transport and Environment, Derbyshire County Council, County Hall, Matlock DE4 3AG (For Attention of Traffic and Safety Team quoting reference Z3237) or email highways.hub@derbyshire.gov.uk by Friday 18th September 2020.

Yours sincerely

Traffic and Safety Service

Economy, Transport and Environment | Derbyshire County Council
County Hall, Matlock, Derbyshire, DE4 3AG

**Appendix B**

**Public**

**Agenda Item No. 6(e)**

**DERBYSHIRE COUNTY COUNCIL**

**CABINET**

**16 November 2017**

Report of the Strategic Director – Economy, Transport and Environment

# DERBY AND DERBYSHIRE ROAD SAFETY PARTNERSHIP - APPROVAL OF SPEED MANAGEMENT PROTOCOL ENGINEERING TECHNICAL ANNEX (HIGHWAYS, TRANSPORT AND INFRASTRUCTURE)

(1) **Purpose of Report** To seek Cabinet approval of the Derby and Derbyshire Road Safety Partnership Engineering Technical Annexes to the proposed Speed Management Protocol (SMP).

(2) **Information and Analysis** In order to progress the development of the proposed Derby and Derbyshire Road Safety Partnership SMP, policies and procedures for all partner organisations, i.e. Derbyshire Constabulary, Casualty Reduction Enforcement Support Team (CREST) and Derby City Council, need to be reviewed and compiled into a series of technical annexes. The annexes need to reflect the current practice and priorities of each of the partner organisations in dealing with speed related matters.

The demands upon the Council's highway service and its budgets are high and it is important that requests for improvements are dealt with in a consistent manner with regard to delivering the most cost effective way of continuing and maintaining road safety on the network.

The intention of the Derby and Derbyshire Road Safety Partnership, Engineering Technical Annex will therefore be to categorise all engineering measures available and to identify the circumstances where such measures will and will not be used.

In order to facilitate this, it has been necessary to combine and update all existing technical policies in relation to any engineering measures that may be deployed in resolving speed related matters, as well as defining the conditions or criteria that will be applied for each type of measure.

The measures employed to help resolve speed related matters, with accompanying description and criteria that are covered within the Technical Annex, are:

- Speed Limits (urban and rural)

- 20mph Speed Limits and Zones
- Traffic Regulation Orders
- Speed Limit Changes
- Vehicle Activated Signs
- Horizontal Traffic Calming (build-outs, chicanes and priority narrowing)
- Vertical Traffic Calming (road humps, speed cushions, speed tables, plateau)

The approval of the Derby and Derbyshire Road Safety Partnership, Engineering Technical Annexes will provide a clear step to a more consistent and transparent approach to Economy, Transport and Communities Highways Traffic and Safety Engineering at this early stage of the development of the SMP.

(3) **Financial Considerations** There are no financial considerations associated with this report.

(4) **Social Value Considerations** The purpose of the SMP is to provide a consistent approach to the management of speed and concerns about speeding vehicles on the roads of Derbyshire. It aims to reduce casualties, improve the safety and quality of life for residents and those who travel through, whilst involving local communities in decisions affecting their local area. The associated technical annexes are a key aspect in supporting the SMP.

**Other Considerations**

In preparing this report the relevance of the following factors has been considered: legal, prevention of crime and disorder, equality and diversity, human resources, environmental, health, property and transport considerations.

(5) **Key Decision** No.

(6) **Call-In** Is it required that call-in be waived in respect of the decisions proposed in the report? No.

(7) **Background Papers** Held on file within the Economy, Transport and Environment Department. Officer contact details – Neill Bennett, extension 38659.

(8) **OFFICER'S RECOMMENDATION** That Cabinet approves the Derby and Derbyshire Road Safety Partnership, Engineering Technical Annexes to the proposed Speed Management Protocol.

**Mike Ashworth**
**Strategic Director – Economy, Transport and Environment**

# Derby and Derbyshire Road Safety Partnership - Speed Management Protocol

# Engineering Technical Annex

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# 1 SPEED LIMITS

Derbyshire County Council is responsible for setting speed limits on all roads in the County, and Derby City is responsible for those in its jurisdiction, and motorways and trunk roads – the M1, A38, A50, A52 (east of Derby), A5111, parts of the A6 and the A628 – which are the responsibility of Highways England. Any queries about speed limits on these routes can be directed via e-mail to info@highwaysengland.co.uk or by calling 0300 123 5000.

Speed limits are introduced to ensure greater road safety and should seek to balance this with accessibility and environmental objectives, improving the quality of life for local communities. Any changes we make to speed limits must adhere to criteria as set out by the Department for Transport (DfT).

Speed limits are the maximum speed at which vehicles may legally travel – they are not target speeds: You should always reduce your speed when:

- the road layout presents hazards, such as bends;
- you are sharing the road with pedestrians and;
- there are adverse weather conditions; or
- you are driving at night – as it is harder to see other road users and possible obstructions.

Balancing the need to travel and overcoming social exclusion and strengthening rural communities are also key, but must be carefully assessed against reducing road traffic collision. The promotion and education of safe and considerate driving and encouraging road users to adopt appropriate speeds on our roads is also important to the success of speed limits. The responsibility for the enforcement of speed limits lies solely with the Police and instances of speeding can be reported to your local Police officers by dialling their 101 non-emergency number. In future the development of an area on the partnership website with appropriate links will facilitate the reporting of all speed related matters.

In January 2006, the DfT published guidance circular 01/2006 on 'Setting Local Speed Limits'***** which sought a common national approach on the setting of limits, highlighting the need to manage speed in a way that is appropriate for the road function and local characteristics. Following release of this guidance, routes in Derbyshire were reviewed and changes to speed limits implemented where appropriate - *[***** circular 01/2006 has now been replaced by circular 01/2013 – see link below*]:

https://www.gov.uk/government/publications/setting-local-speed-limits

## 1.1 Speed limits in urban areas

DfT guidance states:

> *"Urban roads by their nature are complex as they need to provide for safe travel on foot, bicycle and by motorised traffic. Lower speeds benefit all urban road*

*users, and setting appropriate speed limits is therefore an important factor in improving urban safety."*

On roads where a recognised system of street lighting is present (where there are 3 or more lighting columns not more than 183m apart) the default speed limit will be **30mph**, unless there are signs in place indicating a different limit, and will be signed accordingly where the street lights start. Such roads will have a significant degree of frontage development with pedestrian activity and the presence of driveways, junctions, traffic signals and crossings. By law we cannot put in additional 30mph (repeater) signs where street lighting is present.

A **40mph** speed limit is generally appropriate on higher quality suburban roads away with less frontage development but with side roads, some bends and traffic signals or pedestrian crossings. Repeater signs are required.

In exceptional circumstances, **50mph** speed limits may be introduced on roads where the environment and characteristics allow this speed to be achieved safely – e.g. dual carriageways, radial routes or bypasses. Higher speed limits encourages urban through traffic to use routes of this nature rather than less suitable residential streets.

Where roads do not have a speed limit and are unlit, the national limit applies and drivers are expected to drive to the conditions. The following link provides a summary of national speed limits with reference to vehicle type:-

https://www.gov.uk/speed-limits

## 1.2 Speed limits in rural areas

DfT guidance stipulates that **30mph** is considered the norm in villages, based on a simple criteria relating to the density of frontage development and distance:

- There should be **20** or more houses on one or both sides of the road, over a length of around 600m. This can be less if the level and density of development exceeds the 20 or more houses criterion. In instances where there are less than 20 houses, an extra allowance can be given for key buildings – i.e. churches, community centres, schools, etc.

- A preferred length of 600m is desirable to avoid too many changes of speed limit along the route, which could lead to motorists disregarding the changes.

In the absence of street lighting, 30mph repeater signs will be required.

**70mph** is the maximum speed limit for cars on dual carriageways and motorways.

The national speed limit applies to single carriageway roads (maximum of 60mph) that have very sparse development, are of a high quality, and have a strategic function.

Lowering the speed limit to **50mph** can be considered where there are a high number of bends, junctions or accesses and a high level of injury collisions.

A speed limit of **40mph** may be considered in very exceptional circumstances in an area of outstanding national beauty or across, or adjacent to, unenclosed common land; or if they form part of a recommended route for vulnerable road users. Such a special application would need, however, to be done in association with the DfT and in discussion with a national park authority.

Speed limits on single carriageway rural roads should take into account: the collision history, the road's function, existing average traffic speed, level of use by vulnerable road users, the road's geometry and engineering, and the environment, including the level of road-side development.

**Terminal** signs (at the start of a speed limit) must be positioned as close as practicable to the start of a built-up area. Where forward visibility is restricted, signs may be extended outwards to meet standard forward visibility requirements.

## 1.3 20mph Speed Limits and Zones

These can be differentiated as follows:-

- 20mph limits, which consist of just a speed limit change to 20mph which is indicated by the speed limit (and repeater) signs, and
- 20mph zones, are designed to be "self-enforcing" due to traffic calming measures that are introduced along with the change in the speed limit.

Note – refer to Table 1 in section 4 for consideration criteria

20mph speed limits/zones are introduced sparingly, with casualty reduction being a priority for the selection of such schemes.

A number of 20mph zones are in operation in Derbyshire. They should be self-enforcing and so are usually only appropriate in areas where speeds are already naturally low or where a suitable package of traffic calming measures can be used to ensure compliance with the speed limit.

## 1.4 Traffic Regulation Orders

The imposition of any new speed limit, or amendment to an existing speed limit, requires a Traffic Regulation Order to be made. This is a legal process which includes a statutory consultation with public bodies such as the Police, Borough/District and Parish/Town Councils. A public notice period is also required – where details are advertised both on site and in the local press - to give local residents and road users the opportunity to comment on the proposal. Any representations need to be considered that in turn may

result in changes to the original proposal. Where powers are delegated, representations can be dealt with by a delegated senior officer.

Once a proposal has been approved, the necessary signs are ordered and arrangements made for them to be in place on a certain date to coincide with the date the Order comes into force; the Order is then enforceable by the Police.

This entire process – from investigation to implementation – can take between 6 and 12 months to complete.

Introducing a Traffic Regulation Order is both a time consuming and costly process. We receive many requests for speed limits and therefore apply a points-based scoring system to allow such requests to be prioritised. This allows resources to be better targeted at those areas which highlight an issue with collisions. The ranking scheme is included below.

### 1.4.1 Speed limit ranking scheme

| Subject | Parameters | Points range | Points scored |
|---|---|---|---|
| Collisions | Serious and Fatal<br>Slight<br>Non-Injury<br>Sub-total score<br>Divided by crash exposure value: (volume (volume per day) x length (m) x 365) x 2<br>Total collision component score | 10<br>5<br>1<br>=<br><br>= | |
| Capital scheme or developer funded | Yes<br>No | 5<br>0 | |
| Road hierarchy | A road<br>B road<br>C road<br>Unclassified | 5<br>4<br>3<br>2 | |
| Enforceability (based upon 85 percentile speed) | New limit self-enforcing<br>Supporting engineering features required<br>Regular Police enforcement | 5<br>0<br>-5 | |
| Benefits of scheme to vulnerable road users | Possible improvement<br>No change<br>Deterioration | 2<br>0<br>-2 | |

| Subject | Parameters | Points range | Points scored |
|---|---|---|---|
| Benefits to schools | Possible improvement<br>No change<br>Deterioration | 2<br>0<br>-2 | |
| Benefits to elderly/mobility impaired | Possible improvement<br>No change<br>Deterioration | 2<br>0<br>-2 | |
| Benefits to local facilities/businesses | Possible improvement<br>No change<br>Deterioration | 2<br>0<br>-2 | |
| Effect on emergency services response times | Possible improvement<br>No change<br>Deterioration | 2<br>0<br>-2 | |
| Support from residents | Yes<br>No overall support<br>Residents not in support | 2<br>0<br>-2 | |
| Support from community and/or special interest groups | Yes<br>No support forthcoming<br>Against proposals | 2<br>0<br>-2 | |
| Cost of speed limit, including advertisements and associated works | <£5,000<br>£5,000 to £7,500<br>£7,500 to £10,000<br>£10,000 to £15,000<br>> £15,000 | 10<br>8<br>6<br>3<br>1 | |
| | | Total | |

## 1.5 Speed limit change

Excess speeds alone are unlikely to justify the lowering of an existing speed limit. The speed limit will have been implemented according to DfT guidance and will be appropriate for the character of the road and level of built-up development. The vast majority of drivers will choose to drive at speeds they feel are appropriate and unnaturally low speed limits will be ignored. Compliance could be achieved by introducing a package of traffic calming measures but, in the absence of a speed-related injury collision history, the expenditure would be difficult to justify.

## 1.6 Community speed watch

Community Speed Watch is administered by the Police and will be an option in dealing with speed related matters. In future, the development of an area on the partnership website with appropriate links will facilitate the reporting of all speed related matters

# 2 VEHICLE ACTIVATED SIGNS (VAS)

## 2.1 Introduction

This guidance puts in place detailed procedures to be followed in considering the installation of permanent, temporary or mobile VAS.

VAS have become a popular, effective, less intrusive form of speed-reduction which can be used as an alternative to more physical measures. These are electronic signs which display a symbol and/or message when triggered by a vehicle travelling at a specific pre-set speed – the threshold speed usually being set at 10% + 2mph above the posted speed limit (e.g. 35mph in a 30mph limit). They are often introduced to supplement rather than replace traditional signing and lining, and are aimed at addressing specific road safety problems. However, note that those displaying a speed limit sign only should be set at speed limit +2mph, see criteria 2.2(b) below).

Note – refer to Table 1 in section 4 for consideration criteria

Both **permanent** and **temporary** VAS measures have been used in Derbyshire and Derby City. Research has shown that the effectiveness of permanent VAS reduces as motorists become familiar with them. The advantages of a temporary VAS is that it can be moved around between a number of sites; remaining at one site for a number of months before being moved to another site before motorists become familiar with it. The sign can then be redeployed to the same site several months later to retain its effectiveness.

VAS have been developed in Derbyshire and Derby City to address not only problems of exceeding speed limits, but also to encourage drivers to approach hazards – such as bends or junctions – at a safe speed, and to provide hazard warnings where conventional signing alone has not been effective. Analysis of existing sites has shown that, where these signs have been introduced in response to injury collision problems, they have resulted in immediate and ongoing improvements to the casualty record.
There are still relatively few signs of this nature in Derbyshire and Derby City but there are concerns that to introduce them on a widespread basis would cause drivers to become used to them and their effect would diminish. In response to these concerns we apply a stringent set of criteria to each application we receive, to guard against over-proliferation and to ensure that signs are introduced where they are most needed. This allows the Councils to determine their priorities for investment in VAS and to inform other bodies about where signs will be deployed and where installation is likely to be refused.

The protocol dictates that <u>all</u> of the following criteria must be met for VAS:

2.1(a) VAS should be considered at sites that have a **collision history associated with inappropriate speed**, or a hazard, that has not been satisfactorily remedied by standard signing. Other signing means must have been tried and have failed; the site must have been subject to a recent speed survey to determine justification for a VAS installation.

2.1(b) VAS displaying a speed limit should be located at sites which have a history of a **minimum of 6 injury collisions within 1km over the previous 3 years** and where speed has been a factor in some, if not all the collisions.

2.1(c) VAS displaying a speed limit should be located at sites where the results of traffic surveys show the 85$^{th}$ percentile speed is at least 10% over the speed limit +2mph, measured over a 7-day period. [The 85$^{th}$ percentile is the speed at which up to 85% of the traffic is travelling].

2.1(d) Hazard warning VAS should be located at sites which have a history of a **minimum of 6 injury collisions within 1km over the previous 3 years**, and where the hazard has been the cause.

2.1(e) Requests for VAS that meet these criteria should be prioritised on the basis of a calculated estimate of casualty reduction benefits.

2.1(f) The flexibility of temporary VAS means they are the preferred option but the decision on which type of VAS to be used should be made on a case by case basis. To retain effectiveness, temporary VAS should remain on site for **no longer than 3 months and should not be redeployed at the same site within 6 months**.

## 2.2 Installation and Monitoring Criteria

2.2(a) VAS warning of a hazard should be set to operate at the 50$^{th}$ percentile speed measured before installation. However, discretion may be used to change this depending on the road conditions.

2.2(b) VAS displaying a speed limit should normally be set to operate at 10% + 2mph above the posted speed limit (e.g. 35mph in a 30mph limit). However, discretion may be used to change this depending on the road conditions.

2.2(c) The section of road in advance of the VAS must be straight over a reasonable distance to maximise visibility to the sign.

2.2(d) There should be little or no vegetation or street furniture that will block the view of the sign or affect the working of the radar equipment.

2.2(e) There must be sufficient footway or roadside verge to install the sign. There must also be reasonable access to a power supply.

2.2(f) The sign should, wherever possible, not be intrusive to nearby residential properties and early consultation should be sought to establish residents' views. If the sign is proposed within the Peak District National Park, early consultation with the National Park Authority should be sought.

2.2(g) VAS displaying a speed limit should be located between 100 metres and 200 metres beyond the start of the posted speed limit sign, except in

urban areas with street lighting where a 30mph speed limit operates and where repeater signs are not allowed.

2.2(h) VAS warning of a hazard should be located between 50 metres and 100 metres in advance of that hazard.

2.2(i) Permanent VAS should be routinely inspected every six months and provided with regular maintenance, such as cleaning the sign face, removing any obstructing foliage and ensuring that the vehicle detection system is functioning correctly.

2.2(j) All VAS installations should be monitored for effectiveness by regular analysis of speed data and collision records. Any that are considered ineffective should be removed.

### 2.3 Permanent and Temporary VAS - Funding by Borough, District or Parish/Town Councils

Where a local council has requested a VAS, which meets criteria for inclusion in the County Council's programmes but is a low priority for installation at the County Council's expense, then the local council may fund the installation. The Funder must undertake to be responsible for all costs, including long-term maintenance for the life of the installation, and removal if required. All selection, installation and monitoring criteria above will apply, with the exception of criteria 2.1(e).

### 2.4 Mobile VAS

Mobile VAS differ from temporary VAS as they are completely mobile and do not require pre-prepared sites, and may be deployed in locations which would not meet the criteria for permanent or temporary sites. Currently, there are no mobile VAS operating, but are included as they may be employed in the future. Decisions on where they may be deployed, and the length of deployment, should be taken through established selection and consultation procedures of the sign's owner, either the County Council, Derby City or Derby and Derbyshire Road Safety Partnership. The owner may seek contributions to costs from the local council requesting the installation. In no circumstances should mobile VAS be deployed for longer than the three month limit applying to temporary installations.

## 3 TRAFFIC CALMING/SPEED REDUCTION MEASURES

Derbyshire County Council and Derby City, as local Highway Authorities, are committed to the reduction of casualties on their highway networks. There are a number of traffic calming measures available to help reduce traffic speeds, and discourage inappropriate through traffic, in order to achieve casualty reduction on our roads.

We receive many requests for traffic calming measures which far outweigh the limited funding available for such schemes. Our funds must therefore be targeted at areas with a history of speed-related collisions resulting in **personal injury**; prioritised to those locations with the greatest number of collisions, with pattern and severity also taken into account. Sites of concern are identified either from data analysis (speed surveys and collision history) or from members of the public, in person or via their parish/town council/County Council Member. Measures can only be introduced at locations where there is an identifiable problem (e.g. trend in collisions) and will be chosen based on the likelihood of an improvement to the road safety record being achieved.

Note – refer to Table 1 in section 4 for consideration criteria

The responsibility for the enforcement of speed limits lies solely with the Police and instances of speeding can be reported to your local Police officers by dialling their 101 non-emergency number. In future the development of an area on the partnership website with appropriate links will facilitate the reporting of all speed related matters.

Below is a description of some of the speed-reduction measures we can consider, given the right circumstances. Physical calming measures - such as road humps or speed cushions (vertical deflection), build-outs and chicanes (horizontal deflection) – are costly and generally not well supported by the public and so we will tend to consider less intrusive measures wherever possible.

## 3.1 Road Humps

Perhaps the most recognisable form of traffic calming, **road humps** (commonly referred to as 'sleeping policemen'), can be used to reduce traffic speeds and discourage inappropriate through-traffic on residential roads in order to lessen the risk of speed-related collisions occurring.

A road hump is rarely introduced in isolation and a scheme would normally include several humps, set at regular intervals, in order to reduce speeds consistently over the given route.

A variation on road humps are **speed cushions**. Unlike road humps, speed cushions form small plateaux across the width of the carriageway with gaps in between. Arguably not as effective as road humps, speed cushions do, however, allow easier passage for wider vehicles (such as those used by the emergency services) as they can straddle either side of the plateau; a useful alternative to road humps on busy bus routes and those heavily trafficked by heavy goods vehicles.

**Speed Tables** take the form of single, raised 'table-top' plateaux across the width of the carriageway. In addition to achieving reductions in speed, tables also provide a safe crossing place for pedestrians, across the top of the plateau, where traffic speeds will be at their lowest.

Measures of vertical deflection, as described above, can only be introduced on roads with a speed limit of 30mph or less, and where street lighting is present. We are also

governed by the Highways (Road Humps) Regulations 1999 which state that humps are to:

- be between 25mm and 100mm high;
- have a minimum length of 900mm;
- be either curved or flat topped, and
- be spaced at between 20m and 150m.

There will need to be very clear justification on grounds of road safety for any of these measures to be introduced as they are not well supported by the general public due to their detrimental effects. These measures will invariably create a level of noise/vibration pollution for local residents. The need for associated signage and street lighting can also be considered detrimental to the aesthetic of residential areas. Given the lack of support, less intrusive measures may be more appropriate in most situations where traffic calming is required.

## 3.2 Build-outs, Chicanes and Priority Narrowing

The benefit of horizontal deflection over vertical deflection is that vehicles do not have to travel over a physical feature and therefore problems of noise/vibration pollution are removed.

Such measures can often take the form of **chicanes** which uses features to either narrow the carriageway – allowing for two way traffic flow at slower speeds – or gives priority to drivers travelling in a certain direction, creating a break in traffic flow and reducing speeds.

Chicanes can be formed by creating **footway build-outs**; widening of the footway into the carriageway to provide improved visibility for pedestrians wishing to cross the road. This is of particular advantage on residential roads with high levels of parked cars. Build-outs introduced in isolation would not necessarily be used as a speed-reducing technique but the 'narrowing' of the carriageway will encourage some drivers to reduce speeds. A number of build-outs, introduced at strategic locations, will create a chicane effect and help to control traffic speeds along the route in question. Build-outs can be difficult to achieve where there are many private driveways restricting their positioning.

**Priority narrowing** is usually created through footway build-outs, extending into the carriageway to such a degree as to limit it to one-way traffic flow. The effect of this is that vehicles travelling in one direction have to give way to oncoming traffic, creating a break in traffic flow and subsequently reducing speeds. This measure does rely on oncoming traffic to be effective. A steady flow of traffic in either direction is needed and, if the balance is not right, can result in drivers speeding up to get through the gap first.

Footway build-outs and priority narrowing are often viewed as too intrusive by residents due to the associated kerbing required for the build-outs and signing/illumination of the priority system. An additional consequence of all forms of horizontal deflection is that it

invariably removes lengths of on-street parking, which is unfavourable in areas where such provision is in high demand.

Less intrusive measures will be considered wherever possible.

As with vertical measures, horizontal measures can only be introduced on roads with a speed limit of 30mph or less, and where street lighting is present.

## 3.3 Road Markings

Before using any of the above measures, we will normally consider whether road markings could be used at sites which suffer from a poor road safety record. The use of road markings can be a cost-effective measure in resolving certain speed-related injury problems.

An example of road markings we may consider are **rumble strips**. These would normally take the form of slightly raised strips, set across the entire width of the carriageway, and a different colour to the road surface. The strips cause vibration when driven over to alert drivers to reduce their speed and are typically used to draw attention to a change in speed limit – e.g. at the entrance to villages where there have been collision problems. Due to the noise generated by rumble strips, we are not recommended to introduce them within 200 metres of residential properties.

Another technique we may adopt is **visually narrowing road markings**, usually taking the form of white hatching placed down the centre of the carriageway. This creates a visual effect of narrow traffic lanes, reducing speeds and keeping opposing vehicle flows away from each other. They also encourage lower speeds when overtaking cyclists or parked vehicles. **'SLOW'** road markings can also be considered at problem locations.

# 4 TABLE 1: IDENTIFIED TREATMENTS AND THEIR CRITERIA FOR CONSIDERATION OF IMPLEMENTATION

| Treatment Type | Treatment | Criteria | Considerations |
|---|---|---|---|
| Engineering | 20mph zones. | • Only available for existing 30mph speed limit areas.<br>• Not available for arterial/ strategic routes.<br>• 6 personal injury collisions over 1km (pro rata) in the latest 3 years.<br>• Recorded mean speed and 85th percentile should be approximately 20mph. | Traffic Regulation Order legal process required |
| Engineering | Speed Limit Change. | • Current speed limit assessed and not appropriate.<br>• Procedure to rank and prioritise requests for speed limits is applied.<br>• | Traffic Regulation Order legal process which is subject to the public and statutory bodies opinion. |
| Engineering | Permanent Vehicle Activated Signs (VAS). | • 6 personal injury collisions over 1km in the latest 3 years, where either a trend can be identified or speed has been a factor in some of the collisions.<br>• Site or Route Specific Road Markings and/or Traffic Signs methods have been evaluated and not worked<br>• 85$^{th}$ percentile recorded speed has exceeded the threshold specified in Table 2.<br>• Other traffic calming measures inappropriate due to strategic nature, hierarchy and importance of the route and to avoid the use of less appropriate routes. | Speed or specific collision trend required.<br>Road user can become familiar. |
| Engineering | Temporary VAS. | • 6 personal injury collisions over 1km in the latest 3 years, where either a trend can be identified or speed | Road user less likely to become familiar and effectiveness is retained.<br>VAS should remain in place for no longer than 3 months and not |

| Treatment Type | Treatment | Criteria | Considerations |
|---|---|---|---|
| | | has been a factor in some of the collisions.<br>• Site or Route Specific Road Markings, Traffic Signs and other engineering methods have been evaluated and not worked.<br>• 85th percentile recorded speed has exceeded the threshold specified in Table 2.<br>• Other traffic calming measures inappropriate due to strategic nature, hierarchy and importance of the route and to avoid the use of less appropriate routes. | redeployed at the same site within 6 months (subject to resourcing and funding). |
| Engineering | Horizontal Traffic Calming Measures (build-outs, chicanes and priority narrowing). | • 7 personal injury collisions over 1km (pro-rata) in the latest 3 years in an area or.<br>• Identified rat-running route.<br>• Current speed limit is 30mph or less.<br>• Street lighting must be present. | Limited noise and vibration issues.<br>Difficult to implement where there are private driveways.<br>Often viewed as intrusive by residents.<br>Additional traffic signing and illumination is required which has an environmental impact.<br>Amount of on-street parking provided will be reduced. |
| Engineering | Vertical Traffic Calming Measures (road humps/speed cushions/speed tables/plateaux. | • 7 personal injury collisions over 1km (pro-rata) in the latest 3 years in an area or.<br>• Identified rat-running route with more desirable alternative route available.<br>• Current speed limit is 30mph or less.<br>• Street lighting must be present.<br>• Cannot be provided on the strategic road network where there is a high proportion of heavy goods vehicle traffic. | Size/height, etc, is prescribed by Highways (Road Humps) Regulations 1999.<br>Can provide additional noise and vibration issues for residents.<br>Additional traffic signing required which has an environmental impact. |
| Engineering | Site Specific Road Markings (rumble strips). | • 3 personal injury collisions over 1 km in the latest 3 years | Noise impact upon nearby properties. |

| Treatment Type | Treatment | Criteria | Considerations |
|---|---|---|---|
| | | • Cannot be located within 200m of a residential property. | |
| Engineering | Site or Route Specific Road Markings (white hatching/narrow lanes/SLOW markings) and or Traffic Signs. Reductions in signs and markings where beneficial to safety. | • 3 personal injury collisions over 1 km in the latest 3 years. | Environmental considerations, where signs and markings have a little impact upon road safety. Asset reduction and consideration to energy costs. |

# 5 TABLE 2: MEAN AND 85TH PERCENTILE SPEED THRESHOLDS

| Speed Limit | Threshold (mean speeds) | Threshold (85th percentile speeds) |
|---|---|---|
| 20mph | 20mph | 24mph |
| 30mph | 30mph | 35mph |
| 40mph | 40mph | 46mph |
| 50mph | 50mph | 57mph |
| 60mph | 60mph | 68mph |