



Feasibility Report

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Dedham Parish – Traffic
Management Review

March 2023

Document Control Sheet

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Executive Summary

The purpose of this report is to investigate the feasibility of several possible solutions in response to Traffic Management concerns in Dedham Parish. The drivers behind the issues were traffic volumes and speed concerns.

The main findings of the report are as follows.

- Blanket 30-mph restriction request throughout the Parish.

This will not be possible. Essex County Council defines the area as Rural rather than Urban – Essex Policy is to implement 30-mph restrictions in urban areas.

- 20-mph Zone/Order in Dedham Village.

Neither can be pursued. Average traffic speeds exceed that whereby a speed limit could be introduced. Highways here are on a PR2 route – policy does not permit Zones on PR2 routes.

- Changes in junction priority.

No suitable changes were identified for the three sites covered.

- Vehicle Activated Signs (VAS).

No sites were identified as suitable for further investigation. Mean speeds show compliance with speed limits and there is no obvious trend with accidents at each accident site to support warning signs.

- Average speed cameras along Long Road.

This will not be possible. The accident rate, using National Guidelines, does not support the introduction of average speed cameras along Long Road.

- Rumble strips.

It is recommended not to pursue these. Although traffic speed is low enough not to require other calming measures ahead of installing them, the maintenance aspect as well as possible vibration and noise issues generated by rumble strips have the potential to cause inconvenience to nearby residents.

- Village gateways.

It is recommended, to consider installing gateways at the locations listed below.

1. Ardleigh Road.
2. Birchwood Road.

Network Assurance observation on the proposal was that in some locations residents can have concerns if they are outside of the gateway. This may be a concern at Ardleigh Road where residential properties border this site. Furthermore, gateways would require the Parish to apply for a licence for them to be installed.

- Protected Rural Lane Status.

Assessment and designation of highways as Protected Rural Status is a Planning Authority function rather than a Highway Authority function. It is recommended that any pursuit of this designation for various roads is made through Colchester City Council.

- Community Speed watch signs.

It is recommended that the Parish Council approach the Safer Essex Road Partnership (SERP) to generate a Community Speed watch group.

- Risk/Limitations

Limitations that prevent some requests are detailed in this report. Possible hazards are utility services.

- Recommendation including cost

It is recommended to progress designing and installing gateways at the two locations listed above. The cost is estimated to be £16,000. A licence from ECC would be required prior to installation.

Introduction

The commission is to investigate Traffic Management throughout all of Dedham Parish. This includes the following:

- A 30-mph Speed Limit Order everywhere within Dedham Parish.
- A 20-mph in Dedham Village.
- Changes to priorities at several junctions – 1. Dedham Heath (Long Road West, The Heath, Long Road East, Coggeshall Road), 2. Ardleigh Road and Long Road West, 3. Ardleigh Road and Birchwood Road.
- VAS on a number of roads: Birchwood Road, Ardleigh Road, Mill Lane, Coggeshall Road, Stratford Road, Long Road West, Grove Hill, Castle Hill and Bargate Lane.
- Average speed cameras along Long Road.
- Rumble strips on entrances to Dedham Village, Long Road West and Grove Hill.
- Village Gateways at Parish entrances – Ardleigh Road, Coggeshall Road, Bargate Lane, Mill Hill, Birchwood Road and Stratford Road.
- Protected Rural Lane Status - Bargate Lane, East Lane & Manningtree Road
- Community Speed watch signs at all proposed village gateways.

The request has emanated from Dedham Parish who have said that new housing in Tendring has led to an increase in traffic passing through Dedham to access the A12 at Birchwood intersection and Stratford St Mary.

At present this is a feasibility study. Recommendations are for further investigation of some issues and detailed design to address some others in the next financial year. This is to be commissioned through the Colchester LHP, if they choose to fund it. Other items are recommended not to be progressed.

Background

The scheme was self-validated by the HLO following a request from the County Member in October 2021. *This is included in Appendix A.*

The relevant Policy/Guidance/HPN referred to in this report are as follows:

- Department for Transport Handbook of Rules and Guidance for the National Safety Camera Programme for England and Wales for 2006/07¹
- HPN 027 Essex Quiet Lanes (May 2015)
- HPN 032 Vehicle Activated Signs (May 2015)
- Essex Speed Management Strategy (March 2010).
- Traffic Advisory Leaflet 1/05: Rumblewave Surfacing.

Existing Site Conditions

Site Location/Layout

Dedham Parish is mostly east of the A12 with Suffolk on its northern border. It is the most north-easterly of the parishes within Colchester City with Lawford and Manningtree nearby in the adjoining Tendring District. The extent of the parish is shown in figure 1. It also includes the lengths of highway within the parish that have posted speed limits of 30mph and 40mph.

The Village of Dedham is designated a Conservation Area. The extents are shown in figure 2.

Site Observations/Visit

The area was visited on Monday 3rd October 2022. The weather was dry and fine. The area was visited again on Thursday 15th December 2022. The weather was dry with temperatures around freezing point with snow in places.

¹ Electronic version available at:

<https://webarchive.nationalarchives.gov.uk/ukgwa+/http://www.dft.gov.uk/pgr/roadsafety/speedmanagement/nscp/bookofrulesandguidancefo4582.pdf>

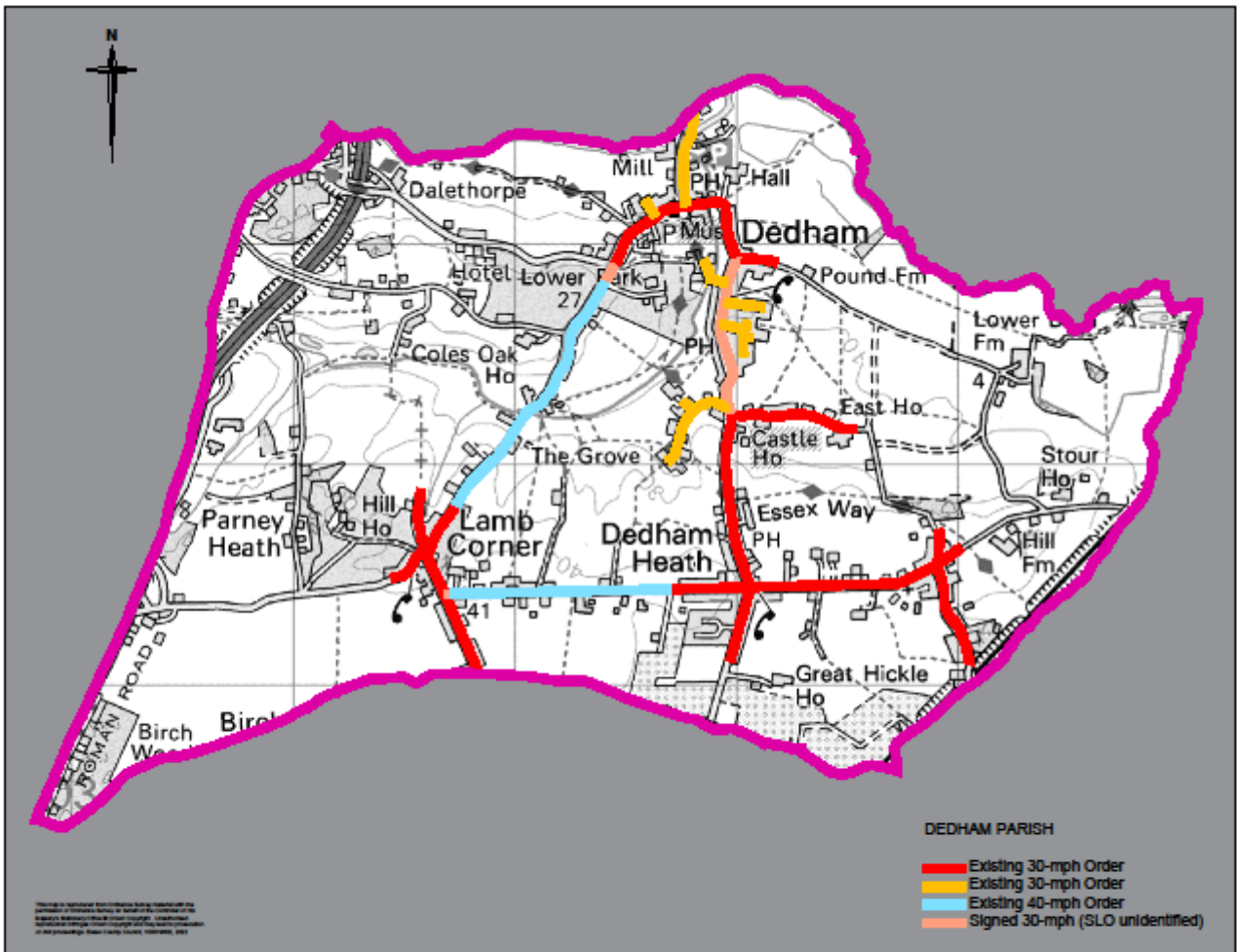


Figure 1: Area covered by Dedham Parish. Plan extracted from 1:50,000 scale OS plans.

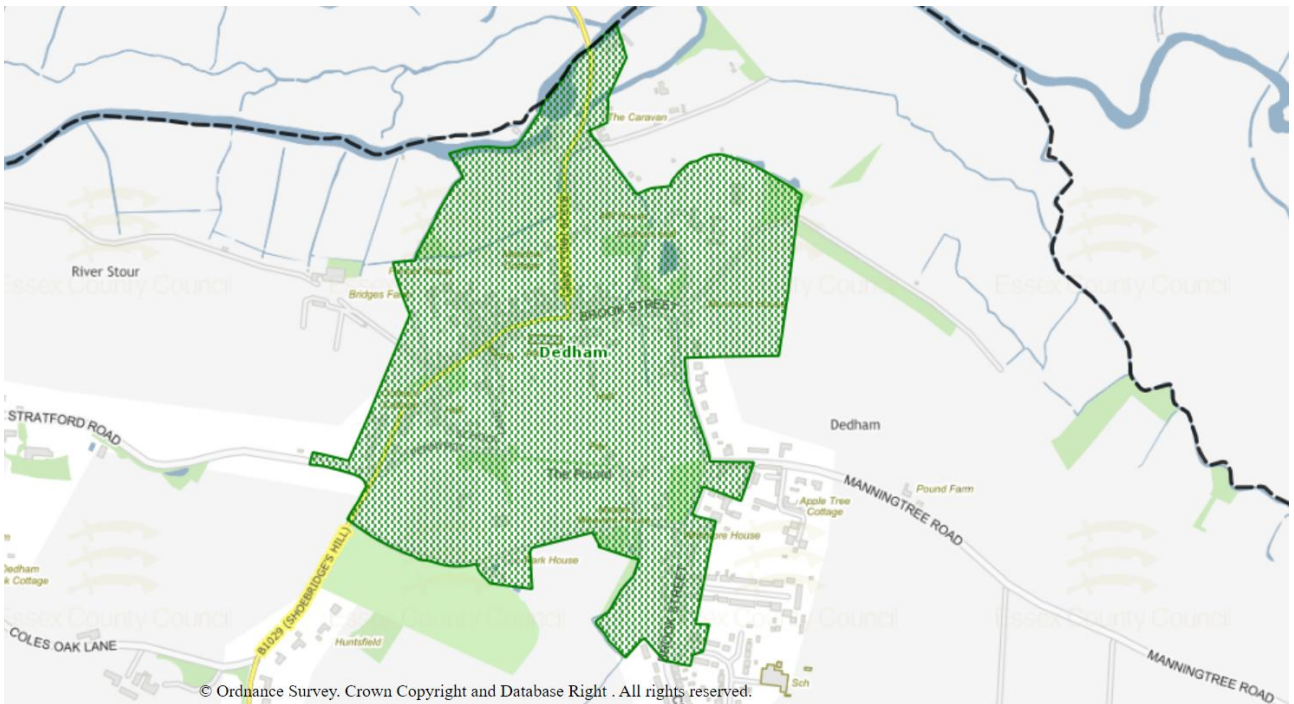


Figure 2: Area covered by Conservation Area.

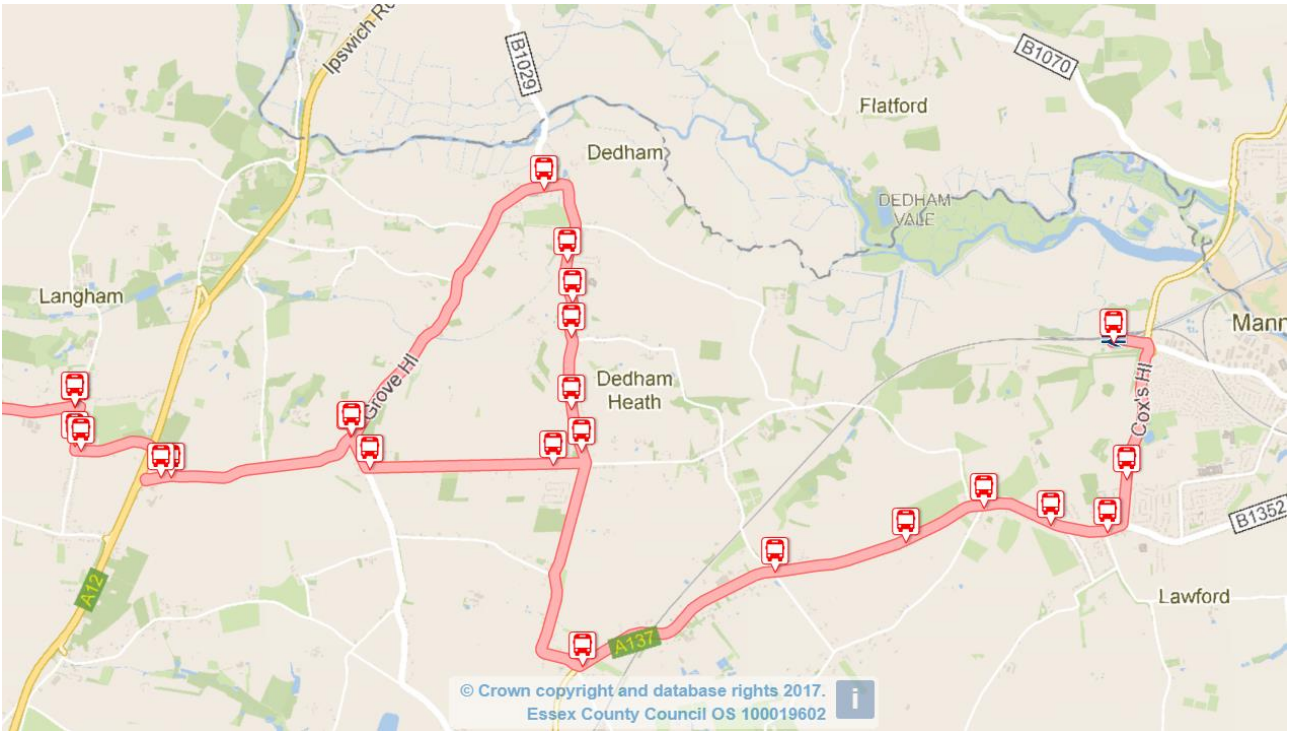


Figure 3: Bus route 81 and 81A: Colchester to Manningtree Station.

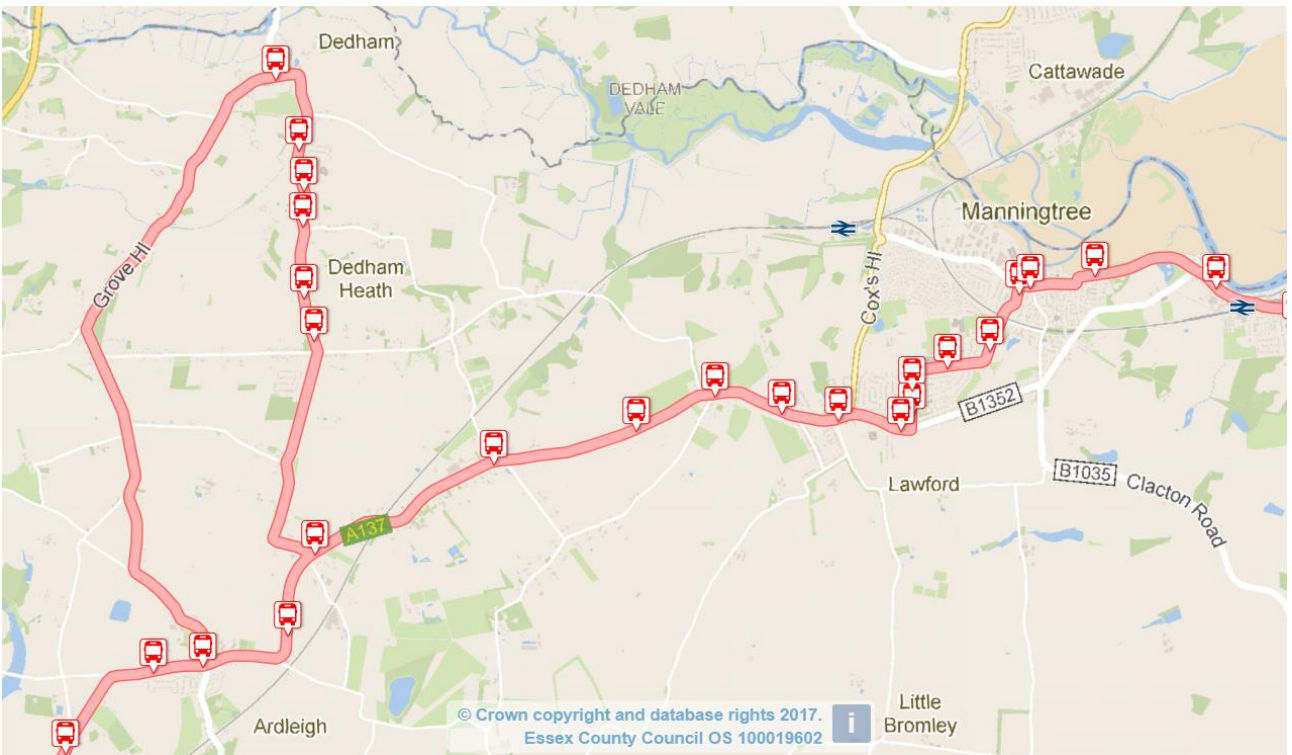


Figure 4: Bus route 102: Colchester to Harwich.

The area is rural. The area north of Long Road is classified as an Area of Outstanding Natural Beauty. Away from the village there are a couple of crossroads where housing has developed over the years.

There are some bus services connecting Dedham with Colchester, Manningtree Station and Harwich (figures 3 and 4).

Existing Traffic Regulation Orders (TROs) and Speed Limit Orders (SLOs)

As the issues raised are to do with speed and volume and not a weight issue, only SLOs have been gathered and are listed below.

Title	Came into Effect	Status
The Colchester Borough (High Street and Mill Lane, Dedham) (Speed Limit) Order 1984	1 st December 1986	Partially changed by 1995 Order
The Colchester Borough (Various Roads, Dedham) (Speed Limit) Order 1986	1 st December 1986	In operation
The Colchester Borough (30 mph Speed Limits) Order 1995	13 th March 1996	In operation
Essex County Council (B1029 Ardleigh Road, Dedham and Ardleigh) (30 mph Speed Limit) Order 2006	16 th January 2006	In operation
Essex County Council (Dedham Road, Gun Hill, Ipswich Road, Stratford Road & The Street, Dedham/Langham) (40mph Speed Limit) Order 2013	1 st April 2013	In operation

Table 1: Speed limit Orders covering Dedham.

All of these are marked for reference on Figure 1 above.

It was noted while comparing these Orders with what is posted on site that the following lengths were not covered by any of the above Orders:

Road	Signed Speed	Length missing	
		Description	Approx length
Colchester Road (B1029)	40	From its junction with Grove Hill to 89 metres southwest of its junction with High Street	794
Colchester Road (B1029)	30	From its junction with High Street south-westerly for 89 metres	89
Crown Street	30	Whole length - from Castle Hill/East Lane junction to Brook Street/Manningtree Road junction.	730

Grove Hill (B1029)	40	From 250 metres north of its junction with Ardleigh Road to its junction with Colchester Road	450
Long Road West	30	From junction with Ardleigh Road west for 30 metres	30
Long Road West	40	From 30 metres west of Ardleigh Road to 360 metres east of junction with Long Road East	989

Table 2: Lengths of signed speed limits that do not appear to have an SLO in place.

These are also shown on Figure 1.

Data analysis

Collision History

The collision history within the Parish was analysed between periods of 01/01/2019 and 31/07/2022 (43 months). This identified there were no fatal one serious and six slight collisions. These can be separated into three locations or lengths of road;

- Junction of B1029 (High Street) and Stratford Road.
- Birchwood Road
- Long Road (West and East).

Junction of B1029 (High Street) and Stratford Road, there were two slight accidents.

Date of Collision	Severity	Time	Lighting condition	Road Surface	Contributing Factors	Collision Description
09/01/19	Slight	07:23	Daylight ²	Wet/Damp	V1 -Failed to look properly. V1 – Junction overshoot. V2 – Nervous/ Uncertain/ Panic.	V2 travelling Stratford Rd approaching the junction with High St with the intention to turn right. V1 was travelling Hight St with the intention to turn right into

² This website <https://www.thetimeandplace.info/uk/dedham-essex/2019-01-09#.YyrrN9fMI2w> shows that sunrise on 09/01/19 in Dedham was 08:00.

						Stratford Road. Rider of V2 believed driver of V1 was cutting the corner to the junction and took avoiding action by jumping off his bike. V1 then hit stationary V2 causing minor damage. Minor injury caused to rider of V2.
13/09/21	Slight	15:40	Daylight	Dry	V1 – Failed to judge other persons path or speed	60m north of junction with Stratford Road, V1 and V2 heading south on High Street. V1 overtook V2 (cyclist) but pulled in when faced with oncoming tractor. Cyclists forced toward kerb fell off bike and had slight injury.

Table 3: Accident data for Junction of B1029 (High Street) and Stratford Road.

Birchwood Road there were two accidents.

Date of Collision	Severity	Time	Lighting condition	Road Surface	Contributing Factors	Collision Description
24/03/19	Slight	10:33	Daylight	Dry	V1 - Failed to signal/ misleading signal	V1 and V2 travelling east. V1 indicates left and slows on approach to Boxhouse Lane. V2 commenced overtake of V1 on offside. V1 turns right. A collision occurred and both vehicles leave carriageway to offside.
25/01/22	Slight	14:37	Daylight	Wet damp	V1 - Travelling too fast for conditions Inexperienced or learner driver/rider	V1 was travelling east on Birchwood Road, Colchester. They then tried to negotiate a slight bend and lost control of the vehicle and crashed

Table 4: Accident data for Birchwood Road.

Long Road (West and East) there were three accidents, one being at the junction with Coggeshall Road.

Date of Collision	Severity	Time	Lighting condition	Road Surface	Contributing Factors	Collision Description
04/03/20	Slight	20:53	Darkness	Wet/ Damp	V1 - Disobeyed Give Way or	V1 travelling south along The Heath

					Stop sign or markings V1 – Careless/ Reckless/ In a hurry V1 – Vehicle in course of crime	failed to stop and give way at crossroads with Long Road East, Long Road West and Coggeshall Road and ran into the path of V2 travelling west causing V2 to collide with V1. Driver and passengers of V1 immediately decamped. Driver of V2 sustained minor injuries. V1 identified to be on cloned plates and stolen.
03/05/20	Slight	00:20	Darkness	Wet/ Damp	V1 – Impaired by alcohol V1 – Impaired by drugs (illicit or medicinal)	V1 appears to have left the road colliding head on with a wooden electric post.
16/06/20	Serious	08:00	Daylight	Dry	V1 – Stationary or parked vehicle V1 – Dazzling sun V1 – Vegetation	V1 travelling eastbound along Long Road West struck pedestrian right forearm with wing mirror. Ped also travelling eastbound was pushing

						a wheelbarrow. View obstructed by parked vehicle, low sun and shadow from trees
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Table 5: Accident data for Long Road (West and East).

There is no collision pattern at any of the sites.

Options considered for Dedham.

Item 1 - Introduction of 30-mph SLO throughout the Parish.

Background.

This idea has been proposed by the Parish Council from their concerns of possible rise in dangerous driving and speeding from an increase in the volume of traffic in the Parish.

A 7-day ATC survey was undertaken between 6th October 2022 and 12th October 2022 at the sites below. Survey apparatus at Grove Hill did not record any data so this was surveyed again between 14th October 2022 and 20th October 2022.

LOCATION			Posted speed limit	Survey information	
Road Name	Northing	Easting		Av speed (mph)	Vehicles (AADT)
Birchwood Road	604217	231412	60	41.8	4,085
Grove Hill	604655	231719	30	31.0	1,622
Mill Lane	605761	233340	30	24.9	2,786
Bargate Lane	606939	231387	30	29.3	1,705
Coggeshall Road	605998	231212	30	31.9	1,445
Castle Hill	605990	231663	30	30.7	1,945
Long Road West	605032	231427	40	35.3	2,743

Table 6: Speed and traffic data summary.

Speed restrictions in rural areas.

Essex Speed Management Strategy states the following.

2. Implementation guidelines

For the purpose of implementing the strategy the following will be applied.

2.1. “Urban” means built up,.. A definition based from the 1991 Office of the Deputy Prime Minister details Urban Roads as Major and Minor roads within an urban area with a population of 10 thousand or more. It may relate to roads in towns or in villages and does not necessarily relate to the existence of a 30mph speed limit.

“Rural” means not built up.

As Dedham is classified as Rural then it would not be possible to pursue introducing a 30-mph restriction throughout the Parish.

Conclusion and Recommendation.

The conclusion is that any 30-mph restriction in a rural environment would not comply with Essex policies. Additionally, all of the speed survey data shown in Table 6 shows very good compliance with the posted speed limits. Consequently, the recommendation is to not pursue this proposal any further.

The identification that there may not be SLOs in place for all the speed restrictions on site mean it is recommended that these are thoroughly checked. Areas signed with a speed limit that does not have an SLO to make the posted limit enforceable should be reviewed for inclusion within a new SLO in a future commission.

Item 2 – Introduction of 20-mph SLO in Dedham village.

Area suggested.

The Parish Council have requested that the maximum speed for people to drive in the village is 20-mph. The suggestion is that this covers High Street and Mill Lane which are on the B1029 as well as Brook Street and Crown Street. All four roads are PR2 routes.

20-mph zones and 20-mph limits.

20-mph zones require traffic calming features in order that they are self-enforcing. Essex Speed Management Strategy states:

Permanent 20mph zones will not be permitted on County PR2 Routes but 20mph speed limits may be considered following consultation with the Traffic Manager and the approval of the Cabinet Member.

It goes on to say:

(for speed limits only) the existing mean average speed is 24 mph or under, suggesting that a self-enforcing 20mph restriction is achievable

Survey information.

Survey information for Mill Lane (Table 6: Speed and traffic data summary) showed an average speed of 24.9 mph.

A further 7-day ATC survey was commissioned and undertaken between 3rd December 2022 and 9th December 2022 at locations within the proposed area and are tabulated below.

LOCATION			Posted speed limit	Survey information	
Road Name	Northing	Easting		Av speed (mph)	Vehicles (AADT)
High Street	605473	232958	30	26.7	2,611
Brook Street	605966	233036	30	30.0	2,762

Table 7: Speed and traffic data summary.

The data shows compliance with the existing 30-mph SLO. As average speed exceeds 24.0mph then a 20-mph SLO could not be considered here. The highway here is a PR2 route consequently a 20-mph zone could not be considered either.

Conclusion and Recommendation.

Average traffic speed exceeds that where a 20-mph speed limit could be introduced. The highway is a PR2 route so a zone where traffic calming features would be required cannot be considered either.

The recommendation is not to proceed with either a 20-mph zone or a 20-mph limit.

Item 3 - Changes to priorities at several junctions.

Introduction.

The layout of three junctions were reviewed as requested to examine if there was any benefit in changing the junction priority. These were

- Dedham Heath - Long Road West, The Heath (which leads to Castle Hill), Long Road East, Coggeshall Road.
- Ardleigh Road and Long Road West
- Ardleigh Road and Birchwood Road.

Dedham Heath.

This is a junction where housing has built up over time along all four links.

Long Road West and Long Road East has priority. It is a straight road. Traffic data as well as site observation suggests that the main flow is along the existing priority.



Figure 5: View of Long Road East from Coggeshall Road (ref: 20221003_142619)



Figure 6: View of Long Road East from The Heath (ref: 20221003_142919).

Visibility from the junctions is below that expected for new developments but common on older established highway networks.

A change in priority was considered making Long Road and Long Road East the side roads. The photographs above (Figures 5 and 6) show that the visibility for traffic heading east toward the junction would be poor because of the curvature of alignment along The Heath and Coggeshall Road. In order to satisfy Road Safety requirements land would need to be obtained from the properties on the corners of Long Road West with The Heath and Coggeshall Road to provide suitable visibility for road users. Furthermore, the risk of overshoot of the junction would exist because some motorists would assume that Long Road has priority.

There is not a history of accidents at this junction to suggest a change in priority could reduce their frequency. Therefore, accident and traffic flow data alone are insufficient to support a change in priority.

Ardleigh Road and Long Road West.

Ardleigh Road is a straight road. At this junction the posted speed limit is 30-mph. The current arrangement provides a natural priority with the side road joining it.

Traffic data as well as accident data do not support a change to the existing arrangement.



Figure 7: View of junction from Long Road West (ref: 20221215_145559).



Figure 8: View of junction from Ardleigh Road (ref: 20221215_145755).



Figure 9: View of junction from Ardleigh Road (ref: 20221215_145651).

Ardleigh Road and Birchwood Road.

Ardleigh Road is on the B1029 which travels 13 $\frac{3}{4}$ miles from Brightlingsea to the A12 junctions at Stratford St Mary in Suffolk. The Birchwood Road junction is on the outside of a bend in the carriageway. The open space at this junction at first sight looks sufficient to

consider a change in priority without having to negotiate purchasing nearby land or entering Dedication agreements. A Statutory Undertakers search has not been undertaken.



Figure 10: View of junction from Birchwood Road (ref: 20221215_145150).



Figure 11: View of junction from Birchwood Road (ref: 20221215_145354).



Figure 12: View back along Birchwood Road (ref: 20221215_145403).
54-03



Figure 13: View of junction from Birchwood Road (ref: 20221215_145307).

There is not any accident data or traffic flow information that would support a change in the present priority at this junction.

Any change in priority would direct traffic that was travelling along the B1029 toward the A12 by way of Birchwood Road which is an Unclassified road. In terms of ECC Route Management, it would not be supported to deviate traffic from the B1029 against their will onto Birchwood Road towards the A12.

Recommendation.

The recommendation is to leave the priorities at these junctions as they are at present.

Item 4 - Installation of Vehicle Activated Signs (VAS).

Introduction.

VAS signs were requested as part of this study for Birchwood Road, Ardleigh Road, Mill Lane, Coggeshall Road, Stratford Road, Long Road West, Grove Hill, Castle Hill and Bargate Lane.

A 7-day ATC survey was commissioned and undertaken between 3rd December 2022 and 9th December 2022 along Ardleigh Road and Stratford Road to add to the data already obtained for the other sites.

Background.

Essex policy on VAS is covered by Highways Practice Note 032. It details criteria for introducing both permanent and temporary VAS.

Temporary signs are Speed Indicator Devices (SIDs) that can either show the existing speed limit or show emoticon faces to show happiness at motorists keeping within the speed limit or sadness to those that are exceeding the speed limit.

VAS are not enforceable. They are there to increase driver awareness of the signed speed limit or to highlight a hazard.

Temporary or permanent VAS can also be used to highlight specific hazards that have been identified as possible contributory factors in collisions. They need approval from the Road Safety Engineering Team, where they have identified it as a collision site in accordance with collision site investigation criteria and where the sign will be used as a collision reduction measure.

Site conditions – traffic speed VAS.

Traffic speed VAS can be considered after a series of criteria have been met. The main two criteria are;

- There is speed survey for the site within the last 24 months of the speed limit being in place that confirms that there is a speeding issue.

- The posted speed limit has been in place for at least 12 months and that the mean speed is over 5mph more than the posted speed limit to show that there is an issue with compliance.

The speed data for the highways covered are summarised below.

LOCATION			Posted speed limit	Survey information	
Road Name	Northing	Easting		Av speed (mph)	Vehicles (AADT)
Birchwood Road	604217	231412	60	41.8	4,085
Ardleigh Road	604835	231046	30	33.4	3,224
Mill Lane	605761	233340	30	24.9	2,786
Coggeshall Road	605998	231212	30	31.9	1,445
Stratford Road	605179	232935	60	31.9	1,441
Long Road West	605032	231427	40	35.3	2,743
Grove Hill	604655	231719	30	31.0	1,622
Castle Hill	605990	231663	30	30.7	1,945
Bargate Lane	606939	231387	30	29.3	1,705

Table 8: Survey data in relation to request for VAS.

None of the sites have mean speeds over 5mph higher than the posted speed limit. Consequently, it is against ECC Policy to install VAS signs to highlight the existing speed limit.

Site conditions – hazard VAS.

Three sections of road within Dedham were identified as accident sites. There is no obvious trend to identify a suitable hazard sign for each location.

Furthermore, these can only be used after Road Safety Engineering Team have identified these signs could be used as a collision reduction measure following a site investigation.

Recommendation.

The recommendation is not to pursue installing VAS because no sites meet the criteria for their installation.

Item 5 - Introduce average speed cameras along Long Road.

Introduction.

Speeding had been identified by the Parish Council as a concern. The suggested solution was the introduction of average speed cameras.

The most recent speed and volume surveys have shown that there is good compliance with posted speed limits.

Guidance on speed, safety and red-light cameras.

The most recent guidance concerning these is from January 2006 titled 'Handbook of Rules and Guidance for the National Safety Camera Programme for England and Wales for 2006/07.

Key points are:

The enforcement of speed and red light offences is delivered through local partnerships of police, highway and other authorities

Local partnerships have been formed to deliver the programme. These comprise local authorities, the police, Her Majesty's Court Service (HMCS), the Highways Agency (where appropriate) and other stakeholders, including the local health authority, to ensure that the safety camera programme operates in the most efficient way.

Partnerships' objective are to prevent, detect and enforce speed and red light camera offences, including encouraging road users to drive safely and legally, with the overall objective of reducing road collisions, casualties and deaths.

It later states:

Proposed new sites must comply with national rules and guidance

There are clear criteria and rules for proposed new sites covering the site's collision history, together with requirements on the site length, the levels of speeding, and the need to ensure that a camera is the best solution.

Table 7 within the document details requirements to be met for consideration of a new Core site. These are as follows:

Rural

- 3 KSIs (killed or seriously injured accidents) within a 36-month baseline period.
- Site length of between 0.4km and 1.5km for a fixed camera (route cameras can cover longer lengths than 1.5km).
- Point score of 18/km – 18 being the figure required for any length below 1km where 5 points are given for a fatality and 1 point for a seriously injured casualty.
- Speed surveys show 85th percentile speed is 5 mph over maximum speed limit.

Site evidence.

Along this length the details are as follows.

- One KSI – a serious injury detailed above.
- The straight section is approximately 2.0km.
- The point score is 1.
- 85th percentile speed in 40-mph section was 41.8mph.

Conclusion and recommendation.

The site does not satisfy three of the criteria required to install average speed cameras. Looking at the details for the serious injury, speed was not a factor attributable to the accident.

It is recommended not to pursue installing average speed cameras along Long Road.

Item 6 – Introduction of rumble strips on entrance to village, Long Road West and Grove Hill.

Background – Rumble strips and rumble waves.

Advice regarding their suitability is provided in Traffic Advisory Leaflet 1/05: Rumblewave Surfacing. Most of the following is copied directly from the leaflet.

The Highways (Traffic Calming) Regulations 1999 allow local authorities to construct rumble devices. These rumble devices are interpreted as “a part of the carriageway constructed of a material intended to generate noise or vibration in a vehicle passing over it”.

Rumble devices are designed to provide a vibratory and/or audible effect. They are intended to alert drivers to take greater care in advance of a hazard such as a bend or junction, and to help in reducing vehicle speeds. Reliance should not be placed on such traffic calming surfaces alone when seeking speed reduction.

Traditional rumble devices, particularly rumble strips, can generate considerable external noise over a large area. The Department’s advice is that that the siting of rumble strips close to residential properties should be avoided.

Rumblewave surface treatment has been trialled at a number of sites in Hampshire with 85th percentile speeds between 30 and 45mph; at publication date for the leaflet no systematic testing had been carried out at speeds exceeding this. However, the designer’s experience of the introduction of this system in Suffolk was that motorists found the higher their speed the lower the noise inside their vehicle.

The surfacing is not currently recommended for use in areas where speeds are higher than this. Where there are higher speeds, traffic calming measures should be implemented first to reduce them to below 45mph.

At some sites where rumblewave devices have been implemented, complaints concerning vibration have been received. TRL investigations have identified the severity depends on distance from the rumblewave and the the sub-soil. Minimum façade / rumblewave pad

separations to avoid vibration disturbance inside homes have been calculated and values issued for guidance only - there are uncertainties in the way buildings respond to vibration and the exact nature of the ground conditions. However, on most soils at distances in excess of 30m from the kerb there is unlikely to be a significant vibration problem.

Although vibration levels produced by rumblewave pads are well below those that could cause even minor damage, there is a perception amongst the general population that if vibrations can be felt they must be having a damaging effect on the building. For this reason, it is advisable to reduce vibration levels below those that are likely to be perceptible, by allowing sufficient distance between the rumblewave surfacing and the nearest façade.

The ramps leading to the rumblewave surface can also generate vibrations and these vibrations can become perceptible on upper floors. The longer these ramps, the smaller the vibration effect.

Ramps less than 1m should be avoided, especially on softer soils. At one study site at a distance of 14m from a rumblewave device on firm ground (chalk), no perceptible vibration was recorded, and it was concluded that the occupant was responding to low frequency noise generated by vehicles passing over the device. A previous social survey reported a small number of complaints concerning increased noise following installation. All these respondents lived within 25m of the device.

Therefore, to avoid both noise and vibration problems arising, it is recommended that rumblewave devices should not be placed closer than about 30m from the nearest house foundation.

Conclusion and recommendations.

Rumble devices should not be relied upon as the sole means of reducing vehicle speed. The reductions in speed in TRL surveys were small. They can be uncomfortable for cyclists. Ground vibrations can be an issue for nearby residents. They also become a long-term maintenance issue.

It is recommended to not pursue introducing any rumble strips or devices.

Item 7 – Village gateways.

Introduction.

The commission involved investigating the possibilities of introducing Village Gateways at Parish entrances – Ardleigh Road, Coggeshall Road, Bargate Lane, Mill Hill, Birchwood Road and Stratford Road – along with Community Speed watch signage.

It was noted that Mill Lane was not included in the investigation. Mill Lane is the entrance from Suffolk. A sign already exists on the Suffolk side of the bridge that crosses the river

Stour. This was a recent scheme commission, funded by the Colchester LHP, installed in July 2020³.



Figure 14: Existing gateway on Mill Lane (ref: 20221215_144322).

Dedham Parish would need to apply for a licence using “Consent Application Form A” and “Application Form 17 Gateways” which are available on ECC’s website.

Both forms advise that before submitting an application, written support from the local County Member is required with the application form.

The Traffic Signs Regulations and General Direction 2016 (TSRGD2016) allows for a road safety message text underneath the village name. As an example, in Bicknacre they have added beneath the village name the phrase ‘Community speedwatch village’. The rule in relation to the TSRGD2016 is that it cannot be longer than five words. Rules in relation to Community speedwatch signage is covered later in this report.

Ardleigh Road.

There currently exists gateway features where there is a change in the posted speed limit from 30 to 40 mph. This is south of the junction with Hunters Chase inside the neighbouring Parish of Ardleigh.

These gateways help to reinforce the change of speed limit at this location.

³ Confirm job number 2297550. Scheme code E09-021G-010.



Figure 15: Speed limit boundary – Ardleigh Road near Hunters Chase (ref: 20221003_150330).



Figure 16: Speed limit boundary – Ardleigh Road near Hunters Chase (ref: 20221003_150534).

Stat details show underground services to be present are Gigaclear fibreoptic and potable water. No Cadent gas is shown, nor is anything from UK Power Networks.



Figure 17: Gigaclear plant return.



Figure 18: Potable water service.

Coggeshall Road.

An existing gateway exists at or near the Parish boundary. They serve no obvious reason other than to demarcate a boundary.



Figure 19: Existing gateways in Coggeshall Road (ref: 20221003_142056).

These could be utilised or replaced to provide a Village gateway with a sign.

However, Coggeshall Road is a U-class road with low traffic volumes and good speed compliance. The AADT was recorded as 1,445 and average speed was 31.9mph.

Providing a Village gateway here would have no additional amenity value to the one that already exists. Additional signage to the existing or replacement gateway would also increase the number of assets to be maintained with no obvious benefit to the Highway Authority.

Bargate Lane.

Bargate Lane is also a U-class road. It is also a length of highway where there has been a request to give Protected Rural Lane Status to it. This is discussed later.

Providing a gateway here would increase the number of assets to be maintained with no obvious benefit to the Highway Authority.

Mill Hill.

Mill Hill is also a U-class road.



Figure 20: View on Mill Hill coming into Dedham (ref: 20221215_150624).



Figure 21: View on Mill Hill coming into Dedham (ref: 20221215_150649).

Providing a gateway here would increase the number of assets to be maintained with no obvious benefit to the Highway Authority.

Birchwood Road.

This provides a link into and out of the Parish to the A12. The parish boundary falls both on the section of Birchwood Road after the bridge over the A12 and near the slip-road off the A12 that leads to the Holiday Inn Express and onto Birchwood Road. In those circumstances it might be better to install one gateway on Birchwood Road that is inside the parish boundary.

Stratford Road.

At this location the edge of the Parish is west of the A12 with a junction inside the Parish that provides road users with the option to exit into Suffolk or continue over the A12 toward Dedham Village.

A suitable location for a Parish sign could be near Milsons. The verge on the left in front of the house would provide a location that has good visibility and is scenic.

Traffic volume (Table 8: Survey data in relation to request for VAS) is low. Consequently, providing a gateway here would increase the number of assets to be maintained with no obvious benefit to the Highway Authority.



Figure 22: Stratford Road east of A12 near Milsons (ref: 20221215_143604).



Figure 23: Stratford Road east of A12 near Milsons (ref: 20221215_143635).



Figure 24: Stratford Road east of A12 near Milsons (ref: 20221215_143635).

Conclusion and recommendations.

Three locations appeared suitable for installing gateway features. One of them however has low traffic volumes.

An existing gateway exists in Mill Lane (Figure 14: Existing gateway on Mill Lane) on the entrance from Suffolk. The recommendation is to design and build gateway features in Birchwood Road and Ardleigh Road that are as close as possible in design to the existing gateway.

Item 8 – Introduction of Protected Rural Lane status on various roads.

The brief for this report was to investigate the introduction of Protected Rural Lane status at several sites. These included: Bargate Lane, East Lane & Manningtree Road.

The assessment and designation of highways as Protected Rural Status is a Planning Authority function rather than a Highway Authority function. The Parish Council should consider approaching Colchester City Council to assess these highways.

Any designation would be covered by Colchester City Council's Local Development Framework Policy DP21⁴ which is copied below along with their explanatory note 9.21.

Policy DP21: Nature Conservation and Protected Lanes

Protected Lanes of historic and/or landscape value shown on the Proposals Map will be protected from development that would adversely affect their physical appearance or would give rise to a material increase in the amount of traffic using them.

9.21 The County Council has identified certain lanes that have historic, landscape and biodiversity value which need to be retained and enhanced through appropriate and sensitive management measures. Protected Lanes will be reviewed on a regular basis to ensure their designation remains appropriate and to identify any other lanes which may benefit from additional protection.

Item 9 – Community speed watch signs.

Introduction.

The Safer Essex Roads Partnership (SERP) on their website list the benefits of a community speed watch system as follows:

- The opportunity for residents to increase road safety in their area, and support activities to reduce road traffic collisions and injuries.

⁴ Colchester Borough Council Local Development Framework Development Policies (adopted October 2010) https://cbccrmdata.blob.core.windows.net/noteattachment/Adopted_Development_Policies_DPD.pdf

- Enhancing the role of community members as volunteers and developing better links with the community.
- As Community Speed Watch volunteers are highly visible and make use of a speed detection device, it is usually clear to vehicle drivers their speed is being monitored. This may be enough deterrent for many motorists to slow down.
- The 'community' element of Community Speed Watch could have a more positive effect on some vehicle driver's attitudes compared to engineering schemes.
- The letters vehicle drivers receive as a result of exceeding the speed limit may make them continue to reduce their speeds at all times.

Implementation.

Application to SERP to form a Community Speed Watch group is open to anyone. An e-mail link is provided on their website.

Once a group has been created, Essex Constabulary will provide all the signage necessary for a group to operate.

Conclusion.

Speed Watch signage can be installed on gateway features. However, Dedham Parish would need to have a Community Speed Watch group in place for Essex Constabulary to provide the signage.

Furthermore, the additional phrase 'Community speedwatch village' beneath the Village name could only be considered once a Community Speed Watch had been created.

Option proposal.

The proposal is to proceed with the design and construction of two additional gateway features following successful application for a licence for a structure on the highway.

Cost Estimate.

The estimated cost to design and construct the gateways at the two locations is £16,000.

This cost estimate has been prepared as a guide only, there are a number of factors that could increase/decrease this estimate and it should not be used as an actual cost.

Note the design and installation of the gateways would be reliant on the successful licence being obtained beforehand.

Conclusion.

- Blanket 30-mph restriction throughout the Parish.

Do nothing. A blanket 30-mph would be against ECC Policy.

- 20-mph Zone/Order in Dedham Village.

Do nothing. Traffic speeds mean the only option would be a Zone rather than an SLO and this would be against ECC Policy because the roads are classified as PR2.

- Changes in junction priority.

Do nothing. No suitable changes were identified for the three sites covered.

- VAS.

Do nothing. No sites were identified as suitable for further investigation. Mean speeds at the sites considered show compliance with speed limits and there is no obvious trend with accidents at each site to support warning signs.

- Average speed cameras along Long Road.

Do nothing. The accident rate, using National Guidelines, does not support the introduction of average speed cameras along Long Road.

- Rumble strips.

Do nothing. Although traffic speed is at recommended speeds not to require other calming measures ahead of installing them, the maintenance aspect as well as possible vibration issues generated by rumble strips have the potential to cause inconvenience to nearby residents.

- Village gateways.

Gateways would be suitable at Ardleigh Road and Birchwood Road, subject to the necessary licence being obtained.

- Protected Rural Lane Status.

Assessment and designation of highways as Protected Rural Status is a Planning Authority function rather than a Highway Authority function. It is recommended that any pursuit of this designation for various roads is made through Colchester City Council.

- Community Speed watch signs.

It is recommended that the Parish Council approach the Safer Essex Road Partnership (SERP) to generate a Community Speed watch group.

Recommendation.

The recommendation is to pursue designing and constructing Gateway features in Ardleigh Road and Birchwood Road with ownership and maintenance resting with the Parish Council.