SEEND ROAD SAFETY INITIATIVE

(Version 2.1 – February 2017)

Seend Traffic – A361 in 2016

"Increased volumes of HGVs and other vehicles have caused intimidation, threat and real danger in the Parish of Seend, not only to pedestrian movement but also of local drivers. As regards the A361: this Report, it seems to me, is a long overdue attempt to reclaim the carriageway as a High Street".

Peter. J. Wiltshire – MICE, MIHT (retired), Committee member (retired) of the Transport Society and of the Transport Board of the Institute of Civil Engineers (2004).

Introduction

Many attempts have been made in recent years to resolve the traffic problems within the Parish of Seend. The focus of this Report is designed to consolidate all of the necessary evidence to demonstrate the roads, within what is essentially a village community, are totally unsuited to carrying today's volume of traffic using the High Street as a main thoroughfare.

The hazards and dangers facing local residents going about their daily lives either as pedestrians or road users are ever present and burgeoning. As the vehicles increase in size and number so do the various threats to property, the environment and local residents.

In 1979 the County Development Plan included proposals to improve the A365 through Sells Green and downgrade the status of the A361 through Seend Parish following the construction of the Semington bypass. In correspondence dated July 2003 Wiltshire County Council quoted "The A361 between the A365 and the A350 is not designated as a strategic or local lorry route in Wiltshire's Freight Strategy and as such, HGV traffic should be discouraged from using it". Traffic volumes, particularly HGV's, continue to rise inexorably with Seend High Street being used as a two way 'rat run'.

In January 2015 Wiltshire Council adopted Core Policy Document 65 in which Section (iv) deals with the Movement of Goods

"Where carriage of freight by rail and water is not realistic, encouragement will be given for heavy goods vehicles (HGV's) to use those roads where a minimum of community and environmental impacts will occur, principally the advisory freight network. Where problems caused by HGV's making unnecessary and undesirable use of routes are identified (other than on advisory freight routes) freight management processes will be employed."

Accidents continue to take place on a monthly basis, only some of which are recorded when personal injury is an ingredient. Nine deaths have been recorded in the last 50 years with many hundreds of personal injuries occurring within the same period.

This document highlights areas of concern relating to the personal safety of vehicle drivers, their passengers, cyclists and pedestrians. Despite the obvious dangers introduced by the unusual road geometry of the A361 (4.9 metre width restriction at one point) there is not a single protected pedestrian road crossing in Seend Parish. The traffic problems in the area of the school, the Bell Hill crossroads, Bollands Hill, the Seend Cleeve Road junction and Baldham Bridge are particularly serious with numerous crashes and personal injuries having occurred within the last 12 months.

There is a strong feeling amongst most of the residents living within Seend Parish that more road accidents in the future are a certainty and a carefully drafted Road Traffic Plan (RTP), with measures designed to improve road safety within the Parish and reduce the likelihood of accidents, is a necessity.

Our detailed appraisal and pictorial records have been prepared in order to encourage both Wiltshire Council and Seend Parish Council to address the obvious traffic problems in an earnest attempt to find solutions sooner rather than later. Particular attention should be paid to the Seend Parish Workshop data obtained on 9th June 2016 from 74 residents who included the Chairman of Seend Parish Council and a number of Parish Councillors.

The Seend Parish Plan (currently under development) will provide a good opportunity to embrace some of the ideas contained in this SRSI Report and to formulate longer-term objectives.

If this document results in a more enjoyable and safer environment for those who live in and visit the Parish of Seend, our contributions in both time and money will have proved worthwhile.

Finally, we wish to thank Peter Wiltshire for the time and effort he has spent in helping us compile this Report. His specialist knowledge and authoritative professional expertise have proved invaluable.

Brian Crisp,

Dr. Nigel Knott,

Bruce Talmage

Seend Road Safety Initiative

February 2017

28th of July 2015 (between 3 – 4pm)

I was pushing my little granddaughter on her tricycle when a huge lorry came around the corner towards us. I guess he was trying to avoid oncoming traffic and used up the pavement in front of me.

Luckily he managed to stop his truck 5m ahead of us. His rear tyres were still on the pavement when we passed by.

P.S. (Seend Resident)

Table of Contents

Table of Figures

1 Summary

It would be surprising to find a Wiltshire village with so many traffic problems concentrated in such a small area as in Seend Parish. The size and volumes of HGVs on the village High Street that are unable to negotiate the 'pinch point' at any one time have reached unacceptable levels. The maximum width of HGVs is set at 2.55 metres (without wing mirrors) whilst the width of the A361 in this area is 4.9 metres.

The A361 through-traffic (East/West) runs at 800 vehicles per hour at peak 07:00-0800 and 17:00-18:00 down to half this rate @500-600 per hour during the rest of the day: only reducing below 400 vehicles an hour before 06:00 and after 19:00.[1]

At the Bell Inn crossroads peak time volume traffic from all 4 roads is 840 vehicles per hour (Traffic Count 27 August 2015) - one vehicle passes through this crossroads every 5 seconds or less.

Kennet District Council Conservation Area Statement (2005) included **"The speed and frequency of traffic through the village is disturbing and is especially noticeable because of the volume of traffic, including heavy goods vehicles, using the A361 travelling east-west across the county" and "The awkward road turns at each end of the village appear to have been caused by encroachments on former open spaces.**

Apparent deficiencies in the implementation of the Dept. of Transport Traffic Signs Manual, together with an apparent lack of a strategic approach to the siting of road signs and traffic calming measures in the village of Seend do nothing to assuage resident concerns about their safety and warning visitors of dangerous road situations.

Relevant notes from Dept. of Transport Traffic Signs and Calming Manuals are attached at Appendix A that provide evidence of non-compliance.

For the purposes of explanation, the area under consideration has been split up into individual zones (shown in Figure 1). These are set in no order of priority but merely reflect an approximate grouping of the issues in a 'West to East' sequence.

For each zone there is a section of this document that outlines the particular issues being faced within that zone.

We first published our Seend Road Safety Initiative v1.0 document in September 2015 and are pleased to report Seend Parish Council have supported our efforts since then. We have been appointed to the task of providing support for the Seend Neighbourhood Plan as the Traffic Support sub-group. Our efforts therefore have been divided into a) those matters that can be directly influenced by the Parish Council and b) those matters ('wish list') that are within the future preserve of the Neighbourhood Plan.

[1] ATC Metrocam data recorded w/c 22 February 2016 by Wiltshire Council.

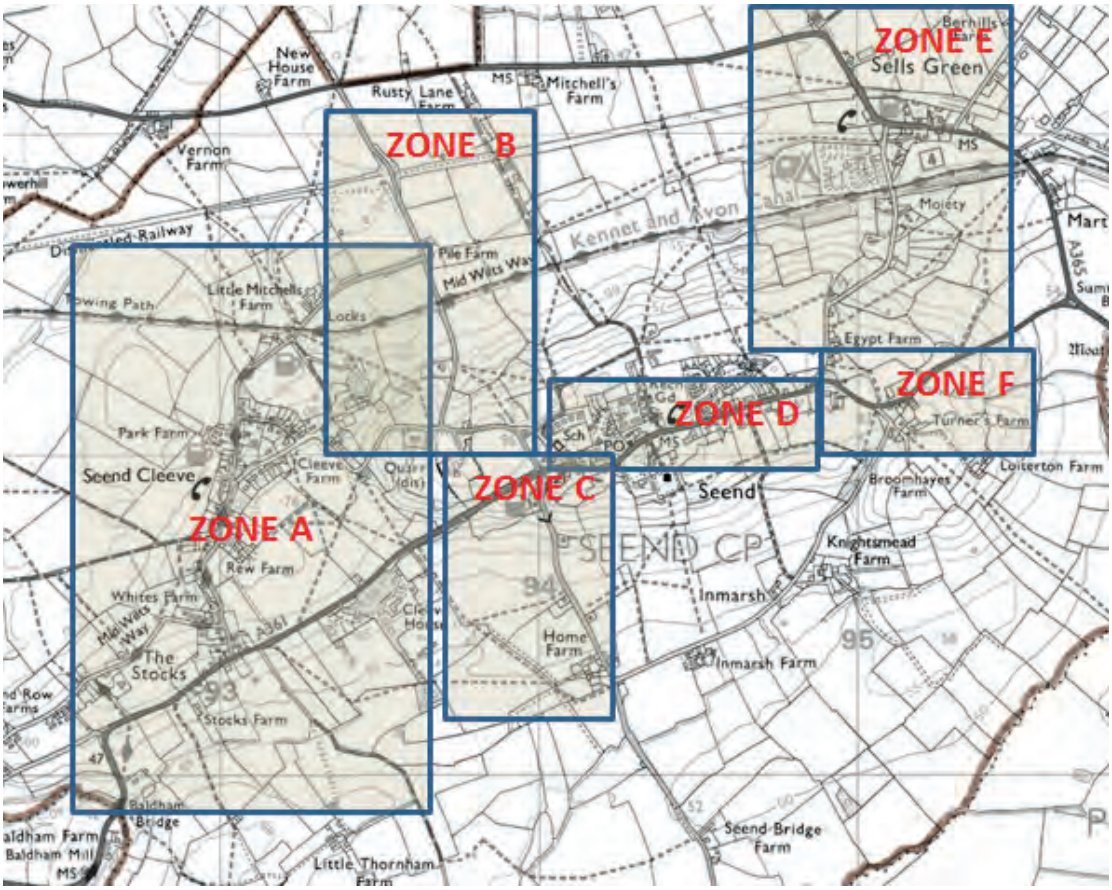


Figure 1 - Study Coverage

2 Generic Issues

Underpinning all the zones there is a consistent and all-encompassing problem: that of the volume, speed and nature of the traffic using the roads in the area. This causes intimidation and fear for pedestrians and local drivers. High noise levels and pollution reduce the quality of life for local residents.

2.1 Accident Statistics – Police Evidence

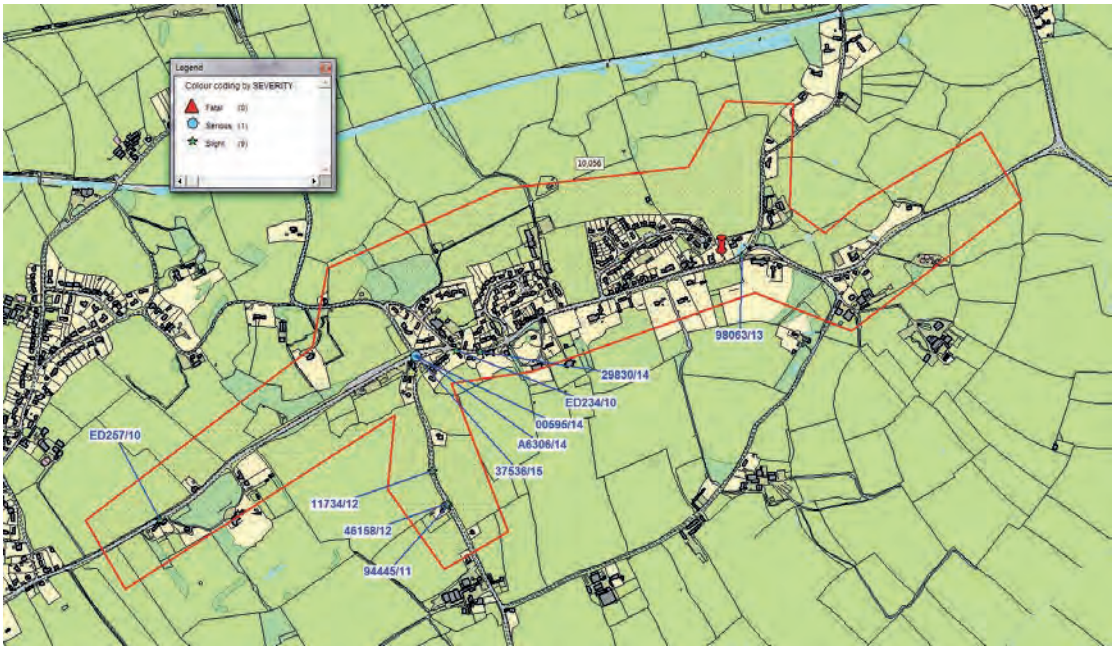


Figure 2 - Road Traffic Injury Collisions – 01/05/2010 to 30/04/2015

The following statistics were obtained from a request made to Collision Statistics (Justice Traffic). They were provided on 3rd September 2015 and do not include the data from unreported incidents. These data cover the most recent 5-year period (01/05/2010 to 30/04/2015).

Figure 2 shows the positions of the collisions. **Note**. None of the examples contained in this document are shown in these statistics.

The table below shows breakdown of the data in terms of casualties and the vehicles involved.

Accidents involving:

	Fatal	Serious	Slight	Total
Motor vehicles only (excluding 2-wheels)	0	0	8	8
2-wheeled motor vehicles	0	1	1	2
Pedal cycles	0	0	0	0
Horses & other	0	0	0	0
Total	0	1	9	10

Casualties:

	Fatal	Serious	Slight	Total
Vehicle driver	0	0	9	9
Passenger	0	0	0	0
Motorcycle rider	0	1	1	2
Cyclist	0	0	0	0
Pedestrian	0	0	0	0
Other	0	0	0	0
Total	0	1	10	11

2.2 Volume of Traffic and Mobility

According to the data provided by Wiltshire Council from ATC counts taken during week commencing 22nd February 2016, one vehicle passes every 4.5 seconds during peak hours and 6.5 seconds during other hours from 06:00 until 19:00 – which also equates roughly to the hours during which the bus service stops in the village.

Researchers from University College London in 2013 found that most people over the age of 65 walked far slower than the estimate of 1.2 metres per second that forms the basis for the timing of pedestrian crossings.

The time given to cross the road has not been revised since the 1950s despite the nation's ageing population.

On average, men over the age of 65 walk at 0.9m/s and women move at 0.8m/s. Speeds of children and people with mobility issues would be significantly lower.

There are areas where those who are hard of hearing or are deaf are at particular risk of injury when crossing roads in Seend

Where this report identifies key pedestrian crossing points the widths of the roads have been provided. This is to highlight the risks of crossing the road at these points based on purely traffic volumes. Where it has been possible to do so safely we have attempted to measure lines of sight to understand also the effect of stopping distances on safety.

By way of example; at the bus stop in the High Street the width of the road is 7.7 metres. To cross the road would, by the above figures, take between 6.4 and 9.6 seconds (depending on age and gender combinations). This makes the road dangerous to cross for pedestrians during peak hours and, at best, hazardous during other daylight hours.

This presents a strong case for providing a pedestrian crossing or refuges at the significant crossing points – without taking into account any inevitable further growth in vehicle size and traffic volume.

2.3 Nature of the Traffic[2]

The following response was received on 3rd December 2014, from the Wiltshire Council (via Seend Parish Council). It highlights the particular issue around the inability to effectively prioritise freight traffic onto the advisory route.

"The A365 is a local freight route which is primarily used to direct vehicles between urban centres and significant traffic generators. It is recognised that the freight route network is only advisory in nature and that freight vehicles will still use other roads not defined as freight routes for business and access purposes.

The third Local Transport Plan has eighteen strategic objectives for transport one of which (SO10) is: To encourage the efficient and sustainable distribution of freight around Wiltshire. This objective is related to indicator 10: proportion of HGV movements on the advisory freight network. This indicator has proved extremely resource intensive and complex due to its countywide nature and due to unanticipated restraints in funding has unfortunately only been completed on one

[2] Information provided by Wiltshire Council, via Seend Parish Council, on 3rd December 2014.

occasion. This was calculated in 2011 and shows 68% of HGV veh-km were on the Advisory Freight Network. As this indicator is based on countywide data it does not provide robust comparisons against specific roads within a defined area.

The Council does undertake regular traffic counts on all our major routes utilising automatic traffic counts (ATC) that are placed in strategic positions around the county's network.

ATC Count Data is available at the following sites:

Site	*Location*	*Total Traffic*	*LV Traffic*	*LV % of Total Traffic*
G1	*A361 – East of Seend Fork*	*10826*	*738*	*6.8*
J2	*A361 – East of Semington*	*7328*	*549*	*7.5*
J4	*A365 – Bowerhill, Melksham*	*8468*	*533*	*6.3*

***Note**: 2013 data based on a 5 day average/12 hour count.*

As can be seen the A365 counts are lower than those on the A361 at Seend so we would anticipate that any survey recently conducted will show similar statistics. As part of our work to discourage freight traffic from using the A361 through Seend, we have recently erected new signage to direct freight to use the A365 instead and we will be monitoring the impact of this signage on HGV numbers."

In February of 2016 a new recording of ATC data was taken, with the following results being provided by Wiltshire County Council which compare the latest readings with those taken in 2013:

		Total Traffic			**Long Vehicle Traffic**			**LV % of Total Traffic**	
Site	**Location**	**2013**	**2016**		**2013**	**2016**		**2013**	**2016**
G1	A361 – East of Seend Fork	10,826	11,600		738	793		6.8%	6.8%
J2	A361 – East of Semington	7,328	7,876		549	568		7.5%	7.2%
J4	A365 – Bowerhill, Melksham	8,468	9,129		533	557		6.3%	6.1%

Notes

1. For the purposes of the analysis an LV (HGV) is taken as a vehicle exceeding 6.5 metres in length[3]
2. This data and the percentages above show the 12-hour (07:00 - 19:00) values and the 5 (week) day measurements.
3. The J4 data relates to the Week 1 data taken from 2nd December 2015[4].

Figure 3 - *ATC Metrocam Count Locations* shows the locations that each of these measurements were taken.

[3] Presumably between first and last axles.
[4] A second set of data was taken (week 2) from 9th December.

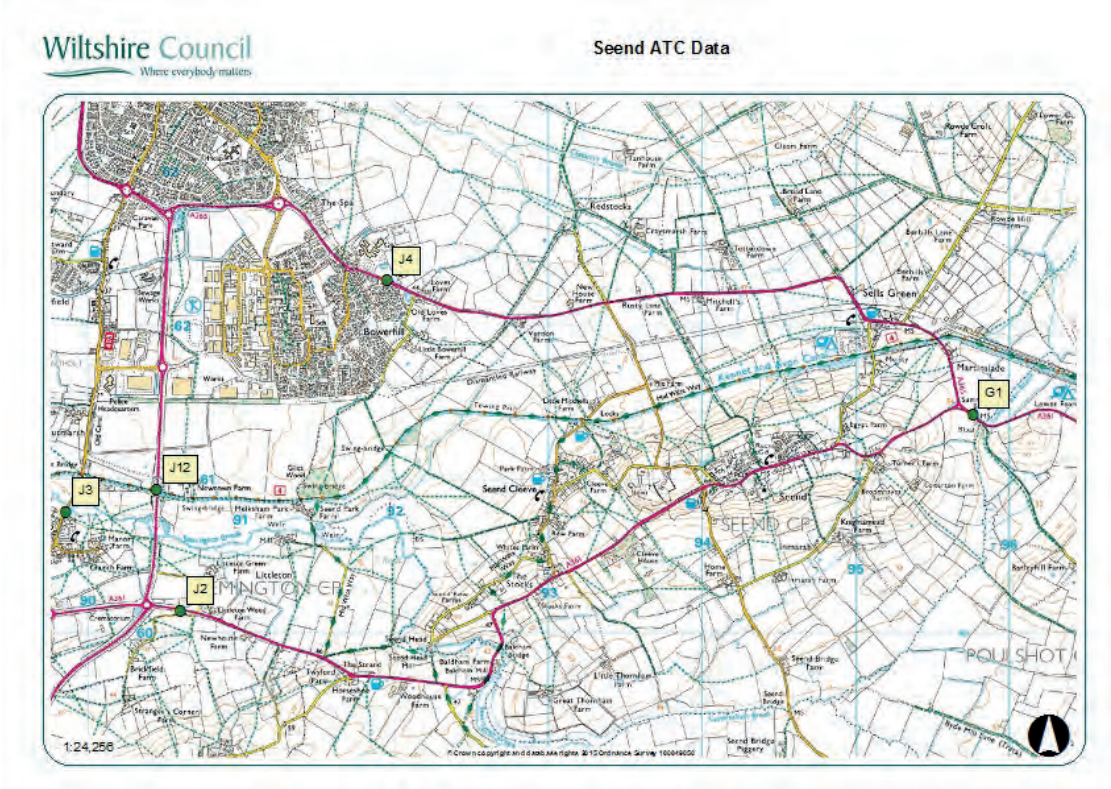


Figure 3 - ATC Metrocam Count Locations

APPENDIX B – Analysis of ATC Freight Data provides a more detailed analysis of the data, including that in relation to the in chart form. The summary data above, along with the analysis in APPENDIX B – Analysis of ATC Freight Data, raise a number of questions and conclusions:

- The ratio of LVs to non-LVs at G1 has remained constant between the two measurement dates. However, the ration of long vehicles to non-LVs at the other two measurement points (J2 & J4) has reduced. It is not clear why or how this might be the case.

- The A361 continues to carry a higher percentage of LVs, as a proportion of overall traffic, than either the A361 (at G1) or the A365 (at J4) despite the fact that this is not the advisory route for freight traffic.

- On the A361 (J2) the proportion of LVs over 24hrs is 7.3% during 5 (week) day period. However, between the hours of 22:00 and 06:00 the ratio, over a similar 5 (week) day period, rises to 11.83%. For the A361 at G1 this is 11.35% and for the Bowerhill (J4) this is 9.98%[5]. This indicates that, at night time (between the hours of 22:00 and 06:00), nearly 20% more LVs travel along the A361 as opposed to the A365 through Bowerhill.

[5] Measurements for week 2 show this figure to be almost identical for J4.

2.3.1 What is the difference between the two routes?

It is possible to do a comparison of the time and distance difference between the two routes under consideration to try and understand the incentive for hauliers to not follow the advisory local lorry route.

The difference between the freight advisory route and the Seend High Street route is approximately 3 minutes driving time for an extra 1.4 miles distance.

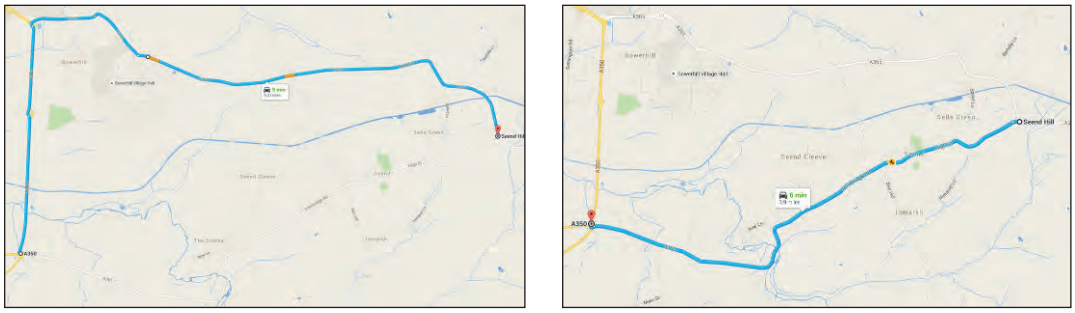


Figure 4- Advisory Route Diversion (local lorry route)

2.3.2 Persistent Offenders

A number of local hauliers (eg Wiltshire Concrete) are persistent users of the High Street. Wiltshire Council have been informed of these and advised some of them in writing of Council policy relating to freight routes[6].

Our own sample survey counted those lorries approaching the Semington roundabout from the South and the West and calculated the ratio of those that took the A361 Seend route as opposed to continuing along the advisory route along the A365. A private survey showed that 3 times as many HGVs took the short-cut through Seend.

2.4 Speed of Traffic

2.4.1 Speedwatch assessment of traffic speed

Data taken from the Seend speed-watch sessions, over the period of January to July 2015, provide the following statistics:

	Ave per hour[7]	Min per hour[1]	Max per hour[1]
Number of Vehicles	546	312	808
Number of Speeders >35mph	17	6	43

Table 1- Speedwatch Statistics (Jan – Jul 2015)

Note. Designated speed-watch location lies within the High Street (to the centre of Zone D).

[6] Data from Freight Surveys carried out by Wiltshire Council, relating to firms using the route, have not been made available.

[7] All figures are adjusted for partial hours.

There are two important observations regarding data relating to drivers breaching the speed limit:

- These offenders were caught by speed-watch volunteers wearing hi-viz tabards and in clear sight of oncoming traffic
- Drivers warn oncoming cars of the presence of speed enforcement activities, by flashing their lights or by using their citizen band radios and mobile phones[8].

It is reasonable to surmise that the speed-watch team acts, to a greater or lesser extent, as a deterrent and that other times, when the speed-watch teams are not operating, these ratios would be higher.

There can only be two reasons why these drivers are caught in the first place:

Either they are not aware of the speed limit along the road. This could be down to poor signs or drivers are not paying attention to their surroundings and the signs available. **Note.** there are no 30mph repeater signs for distance between the entrance and exit of the 30mph zone (some ¾ mile)

Or

They choose to ignore the signs and the speed limit.

In either case additional/better signing alone is not enough. Broader solutions are required if we are to bring speeds through the village to an acceptable and safe level.

Statistics show that a 20 mph speed limit reduces the number of children killed when struck by cars from 50% to 5% - an extraordinary reduction in death rates (Highways Agency Footpath and Road Standards Section A July 2000).

2.4.2 Metrocam (Speed) Data

Wiltshire Council Metrocam equipment is able to automatically record vehicle speeds and these data have been made available.

2.4.2.1 Pinch Point (Western End of the High Street)

These data relate to the speed of traffic at the East of the 'pinch point' (West end of the High Street).

A Metrocam count was carried out between 01/07/2015 and 13/07/2015. A total of 32,005 vehicles were recorded. The 85th percentile was 32.07mph (the 85th percentile is the speed at which 85% of the traffic is travelling at or below).

The figures support the fact that the 'pinch point' is a natural physical barrier to speeding cars (road width 4.9 metres). It does not contradict the findings of the Speed Watch data relating to the main part of the High Street.

[8] Passing villagers have stopped to inform the speed-watch team that they are being flashed to warn them.

2.4.2.2 High Street Metrocam data

A Metrocam count was requested by the Seend Parish Council Clerk on 21st April 2016 and was duly recorded over the period from 17 May 2016 to 03 June 2016. The measurements were taken at the location outside Elcot, High Street, Seend SN12 6NU and the summary[9] data from those measurements provided on 25th July 2016.

Speed	Bin		Below		Above	
0 - 5	0	0.0%	0	0.0%	48,805	100.0%
5 - 10	99	0.2%	99	0.2%	48,706	99.8%
10 - 15	383	0.8%	482	1.0%	48,323	99.0%
15 - 20	850	1.7%	1,332	2.7%	47,473	97.3%
20 - 25	3,369	6.9%	4,701	9.6%	44,104	90.4%
25 - 30	19,920	40.8%	24,621	50.4%	24,184	49.6%
30 - 35	16,728	34.3%	41,349	84.7%	7,456	15.3%
35 - 40	5,383	11.0%	46,732	95.8%	2,073	4.2%
40 - 45	1,484	3.0%	48,216	98.8%	589	1.2%
45 - 50	404	0.8%	48,620	99.6%	185	0.4%
50 - 55	124	0.3%	48,744	99.9%	61	0.1%
55 - 60	36	0.1%	48,780	99.9%	25	0.1%
60 - 65	13	0.0%	48,793	100.0%	12	0.0%
65 - 70	10	0.0%	48,803	100.0%	2	0.0%
70 - 75	2	0.0%	48,805	100.0%	0	0.0%
75 - 80	0	0.0%	48,805	100.0%	0	0.0%
80 - 85	0	0.0%	48,805	100.0%	0	0.0%
85 - 90	0	0.0%	48,805	100.0%	0	0.0%
90 - 95	0	0.0%	48,805	100.0%	0	0.0%
95 - 100	0	0.0%	48,805	100.0%	0	0.0%

The summary findings provided by Wilshire Council on Wednesday, 24 August 2016

Are as follows:

"Traffic Speed Survey Result High Street, Seend (30mph Speed Limit)

- *Outside Elcot*

The Results of the survey for the area of High Street are provided below.

The survey was carried out between 17/05/2016 and 03/06/2016. A total of 48805 vehicles were checked. The 85th percentile was 34.9mph (the 85th percentile is the speed at which 85% of the traffic is travelling at or below). The average speed was 30.4mph.

As with every other department, we have to target our limited resources to where they will be most effective and as such I would remind you that unless there are exceptional circumstances we will not accept another count request for this location or close surrounding area for another 12 months. For your information the thresholds for interventions are below;

In a 30mph speed limit the following criteria will be applied;

30 to 35mph 85th percentile = No Further Action (NFA)

35.1 to 42 mph 85th percentile = eligible for Community Speed Watch

Over 42 mph 85th percentile = Subject to Police enforcement"

[9] From the summary data it is not possible to analyse the data further: in terms of average speeds during different times of the day, or 5/7 day averages.

Profile:

Filter time: 19:58 17 May 2016 => 16:19 03 June 2016 (16.8484)

Included classes: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12

Speed range: 5 - 100 mph.

Direction: North, East, South, West (bound), P = East

Separation: Headway > 4 sec, Span 0 - 100 metre

Name: Default Profile

Scheme: Vehicle classification (ARX)

Units: Part metric (metre, mi, m/s, mph, kg, tonne)

In profile: Vehicles = 48805 / 91069 (53.59%)"

The vehicle profile percentage is less than 100% because vehicles that are not making reasonable progress are excluded. This is to avoid distorting the figures with traffic that are obstructed (as in the case of a traffic congestion) and are therefore unable to make reasonable headway or travel at a speed that they would naturally adopt if the congestion did not exist.

The following question has been raised through the Seend Parish Council and is required to clarify or confirm the summation of the data provided:

Why does the summary report that the 85th percentile is 34.9 mph - when the data provided clearly indicates that the 85th percentile falls within the range 35-40mph i.e. at a speed above that indicated by the highlighted cell in the table data above?

Moreover, is the 85th percentile speed of 35-40mph appropriate for the Stopping Sight Distance that is available at the pinch point? According to DfT Manual for Streets, an HGV travelling at 35 mph on a wet horizontal road in a straight line needs 59m to stop (see 5.3 Approaching Seend from Trowbridge and 11 Recommendations).

3 Zone A – Seend Cleeve, The Stocks and Baldham Bridge

Figure 8 - Zone represents the zone discussed in this section.

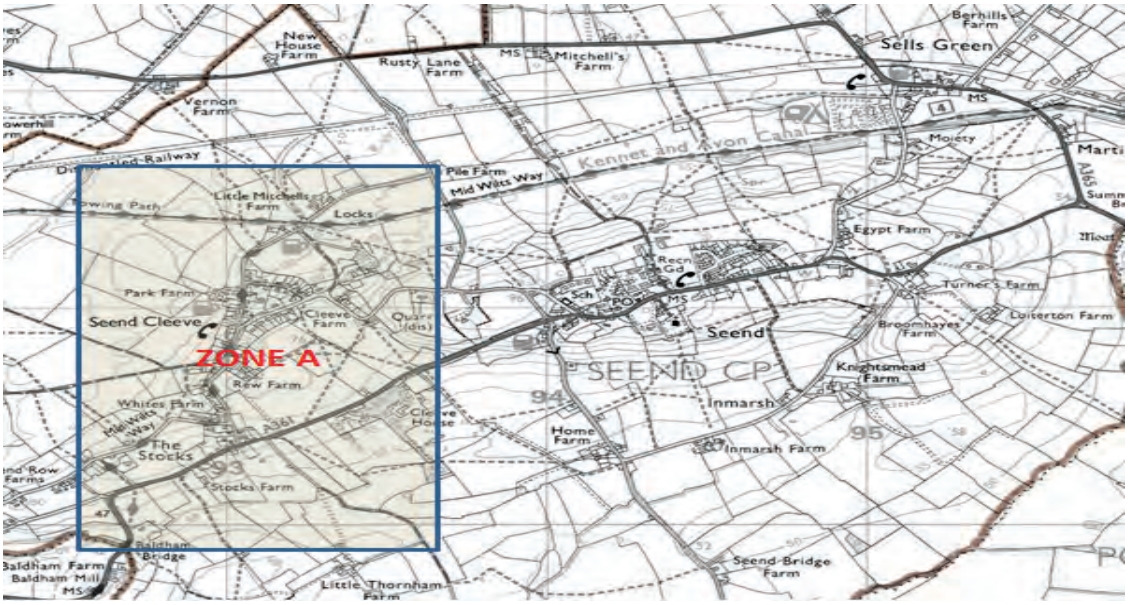


Figure 5 - Zone A

3.1 Seend Cleeve

Little Mitchell's Farm and New Buildings have been highlighted due to the lack of any pedestrian protection (pavements, crossings etc) for children walking to the school bus. Attention has been drawn to car parking problems created by visitors to and users of the canal.

Pelch Lane and Row Lane are dangerously narrow lanes without any pedestrian footpaths and are hazardous to pedestrians, cyclists and horse riders – as well as motorists.

3.2 The Stocks

At the Seend Cleeve junction with the A361 at the Stocks, residents have experienced particular problems exiting the junction due to cars parking in the lay-by at the junction.

The speed of traffic along this stretch of the A361 makes exiting this junction particularly hazardous.

There have been two accidents on this stretch of the A361 resulting in serious injuries within the last 12 months.

3.3 Baldham Bridge & Seend Head

Local residents have described access to and from Seend Head at the junction with the A361 as playing 'Russian Roulette'. 3 crashes have occurred in the past 12 months at the Seend Head Lane corner (junction with the A361).

Figure 6 - Damage to Grade II listed Baldham Bridge - Under Repair (1)

This structure (Grade II listed) has been the victim of substantial and frequent damage over a number of years. Despite this, the authorities have deemed the bridge capable of handling the current freight traffic levels and further action, in respect to weight/ speed limits on the bridge has been ruled out by Wiltshire Council.

Figure 7- Damage to Baldham Bridge - Under Repair (2)

4 Zone B – Bollands Hill

Figure 8 - Zone represents the zone discussed in this section.

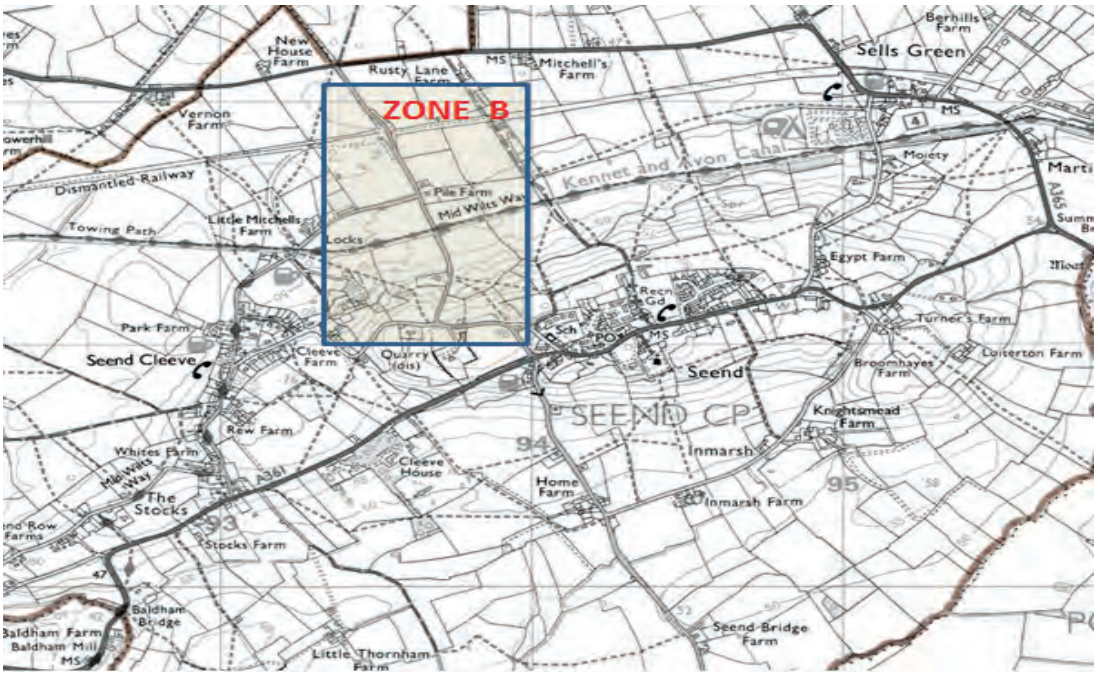


Figure 8 - Zone B

4.1 Bollands Hill

Figure 9 - Looking North-west towards the top of Bollands Hill

Having crossed the A361 from Bell Hill, heading North towards the A365, a left-hand bend is followed shortly by a very dangerous right hand bend (Bollands Hill) with no 30 mph speed limit continuing in operation.

HGVs are unable to negotiate the right angled corner without crossing the centre of the road and there is clear evidence of the central road markings being eroded by the tyres of vehicles.

There is at least one recent incident of two vehicles becoming jammed on the bend. This was whilst attempting to pass on a road that is incapable of hosting vehicles simultaneously in both directions when one or both is a large freight vehicle.

For example, one such incident happened on 29th June 2015 at about 4.20 pm.

This incident involved a very large lorry and a small car. The car tried to squeeze past and got stuck (and scratched) and eventually had to back off. All traffic was held up for 10 minutes.

The car driver (local) took the name of the witness and asked for the photos.

The lorry, a white 2012 Mercedes Actros 2545ls Tractor (registration GX12 KCG), left the scene without the driver leaving any Driving Licence or Insurance details[10].

Figure 10 - Bollands Hill Blocked to Traffic

[10] The vehicle registration was identifiable from the pictures that were taken by a passer-by.

5 Zone C – Bell Hill and Western High Street

Figure 11 - Zone represents the zone discussed in this section.

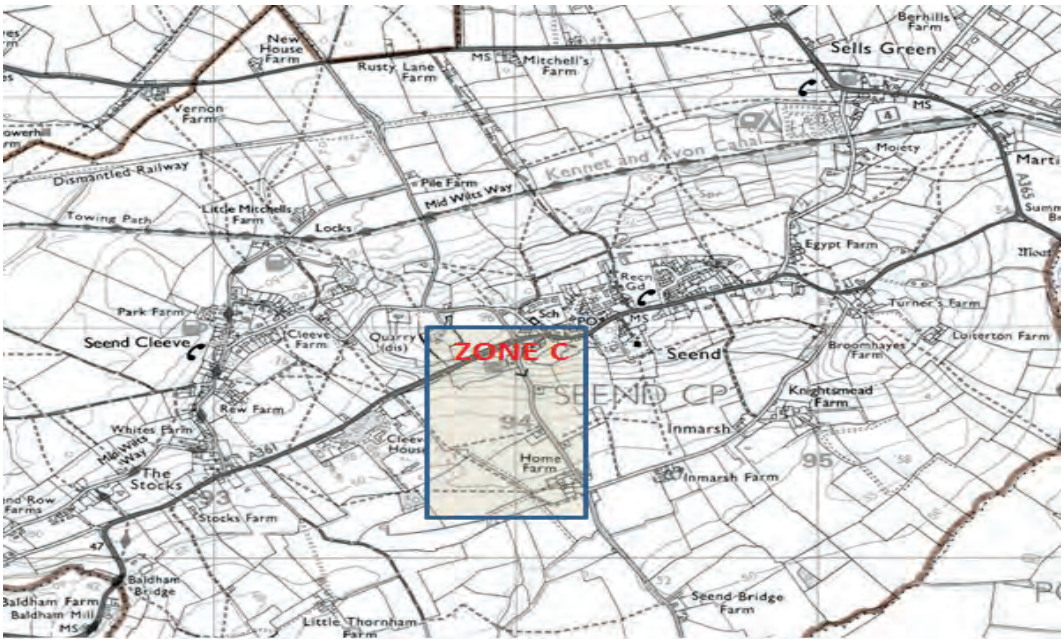


figure 11 - Zone C

5.1 Approaching from Worton

The approach to the cross-roads is a particularly good example of where the signs are woefully inadequate. Several recent accidents have occurred here (see Figure 12 - Bell hill crossroads (Approached from the South).

Figure 12 - Bell Hill crossroads (Approached from the South)

The 30mph speed limit warning signs are sited 22 ft. from the A361 and only become visible when a motor vehicle is within 70 ft. of this main road.

This should be a 'Halt at Major Road' and the 30 mph signpost re-sited at the foot of the steep Bell Hill with the necessary 'Halt' warning sign. Street lighting should also be added as necessary.

Heavy vehicles have been stranded here and are unable to reach the top of this steep hill without engaging first gear at the bottom. There is no sign to warn drivers of the steep gradient of this hill.

At least two accidents have been caused within the last 6 months as a result of vehicles failing to stop in time as they approach the main road.

5.2 Weavers Cottages

Weavers Cottages lie to the South of A361 immediately West of the 'pinch point'.

In *Figure 13* the entrance/exit to Weavers Cottages can be seen.

Figure 13 - Exiting from Weavers Cottages

Whereas entry to the road can be, at best, difficult, exiting from Weavers Cottages is hazardous: particularly if vehicles are exiting the 'pinch point' with vehicles approaching from the East at anything above 30mph with a stopping distance of 75 feet or more. The visibility to the East at this exit is 70 feet. Opening the driver side window and listening for oncoming traffic is an essential requirement.

It should also be noted that there are a number of other junctions in close proximity (the closest being the junction with School Lane) and therefore these also need to be considered when attempting to access the A361 at this point.

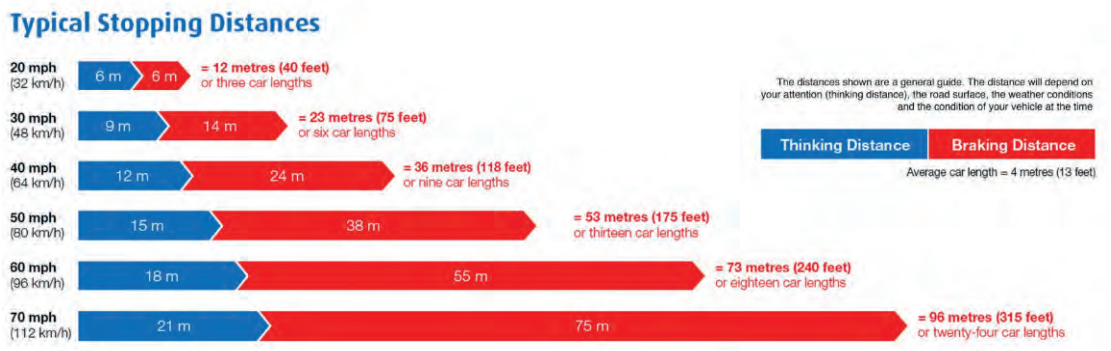
5.3 Approaching Seend From Trowbridge

Figure 14 - Approaching from the West

Figure 14 shows the view when entering Seend, travelling East on the A361, from Trowbridge. The 'pinch point' is where the railings are visible on the left. This narrow footpath is the regular route for pupils from the village to reach the school.

School Lane (invisible turning on left) is an access only road with no proper sign visibility.

On the right are Weavers Cottages where vehicles leaving to join the A361 have less than 70 feet of visibility from the East.



29 Sept 2013 (8pm)

A juggernaut has hit our garden wall which faces onto High Street, Seend!!

A white van also crashed into the wall a month before at 4am causing damage.

Luckily no one was hurt but both incidents were caused by a juggernaut meeting a car / van at the pinch point near our house. If the van had been another large lorry it could have had the weight to knock the wall over, possibly injuring or killing the driver, and if it had been in the daytime injuring or killing someone in my family as the wall backs right onto our garden.

C.F. (Seend Resident)

The 'pinch point' is a particularly hazardous location at the West end of the High Street.

Although it acts as a natural traffic calming point, the speed at which vehicles approach this road restriction means that making contact with each other, or the wall/railings to either side highly likely. This may result in damage to the vehicles, residential property, roadside furniture or, in the worst possible case, death or injury.

Figure 15 - Damaged wall at the 'pinch point'

Figure 16 - Approaching the 'pinch point' from the East

It is noted that the road is too narrow for a lorry and a car (or another lorry) to pass together at this point (width 4.9 metres) without one of the vehicles having to mount the pavement endangering pedestrians.

The railings (that have been frequently damaged) in the bottom-right picture indicate the entrance to School Lane. This is the route to school for children and their parents.

If an HGV or bus driver cannot see 59m to an oncoming vehicle at the 'pinch point' (see 2.4.2.2) then the geometry fails at a very basic level. Even if they *can* see that far, reference to the Highway Link Design Manual of the Highways Agency indicates that the distance should be 65m, this being almost a rural road with a low alignment constraint (Ac) apart from at the 'pinch point'.

Safety measures at the 'pinch point' are therefore required, whether they embrace an introduction of a 20 mph limit in this area or a solution as outlined in Section 11 (Recommendations).

Figure 17 illustrates HGV dangers to pedestrians at the 'pinch point'.

Figure 17 **– 'pinch point' pavement**

6 Zone D – Seend High Street

Figure 18 represents the zone discussed in this section.

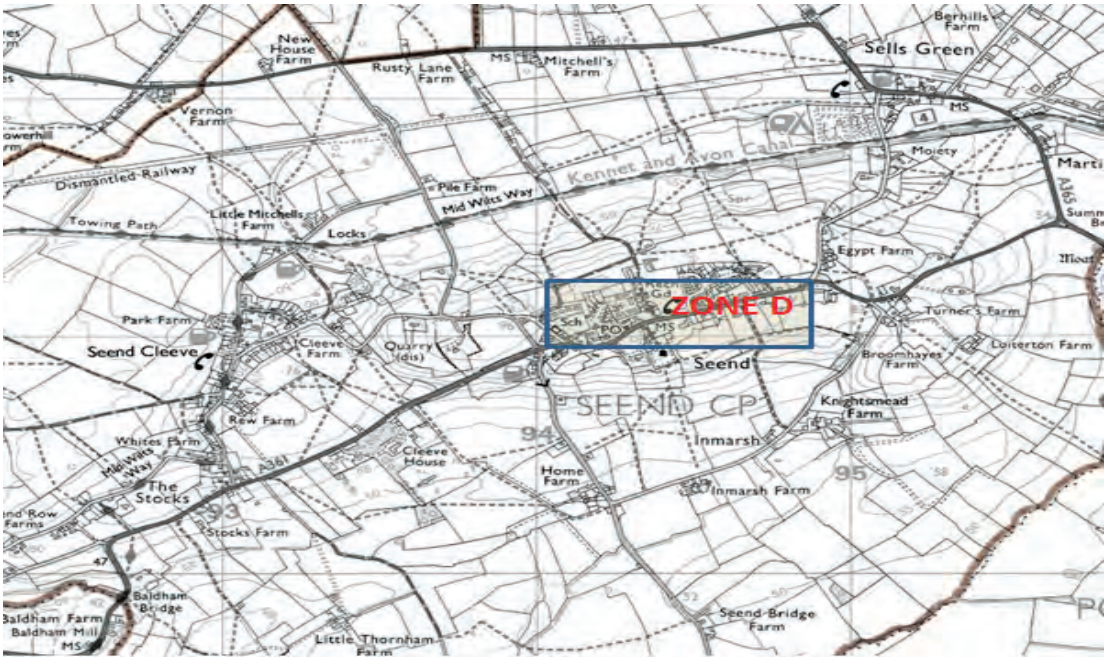


Figure 18 - Zone D

Figure 19 - Eastern end looking West

Figure 19 shows how inviting the three lane width of the High Street is to motorists leaving the bends at the top of the hill from Seend Fork: especially those that remain unaware of the 30mph zone.

There are no reminders (repeaters) along the length of the High Street and this increases the likely impact of any signs, at the entrance to the 30mp zone, being masked by growth from hedges or trees

General issues with the speed and nature of traffic along this road have already been documented in Section 2 (in particular the ability of pedestrians to cross the road safely and without undue delay).

March 2015 (3.30pm)

..... I recently had my car written off by a wayward driver!

It was parked, legally and unattended on the High Street when it was hit. Unfortunately, like all others in our 'clutch' of properties, we have no alternative but to park on the main road. The Lye is always full!

The incident took place in March this year at about 3.30pm and the high street was partially blocked, causing mayhem for more than 3 hours, through the busiest time off day.

He lifted it onto the pavement and pushed it 15ft down the road! How fast must he have been going to achieve that??

R.K. (Seend Resident)

Figure 20 - March 2015 – Collision

There are no traffic calming measures incorporated into the design of the High Street: nor are there any pedestrian crossings or refuges to provide safety whilst crossing this busy road.

6.1.1 Crossing Points

There are three regular crossing points for pedestrians along the High Street. These, from West to East, are:

- To access the Church of the Holy Cross
- To access the bus-stop/s
- To access the entrance to Love Walk (public footpath)

6.1.2 The Church of the Holy Cross

The Church of the Holy Cross is a popular church, particularly with the elderly population. There is limited parking available on the approach road to the Church and this tends to be reserved for residents of the houses opposite the turning to the Church, who are unable to safely park their cars outside their own houses, or for the disabled visitors to the Church.

Consequently, visitors to the Church tend to park on the North side of the road alongside the Lye field.

Figure 21 and Figure 22 show the views (East and West) that can be expected from pedestrians attempting to cross to the Church.

It should be noted that the road and footpaths here are narrow and even light vehicles such as the campervan in Figure 21 are crossing the centre road markings, thus pushing oncoming vehicles towards the footpath next to the opposite lane. The visibility splay dimensions are way below desirable standards for pedestrians at this point.

Figure 21 - Crossing to the Church (Looking West)

Figure 22 - Crossing to the Church – (Looking East)

Figure 22 and *Figure 24* clearly show some of the obstacles that make the use of the grass verge on the South side of the High Street impractical.

Figure 23 and Figure 24 show the views that a pedestrian can expect to see if crossing from the Church to the other side of the road e.g. to return to their car.

As can be seen, the view to the West is particularly hazardous as the view is shortened by the wall and the bend towards the Post Office.

The view Eastwards is also partially blocked by the walled garden of The Manor.

It should be noted that the width of the road at this point is 6.1 metres.

Figure 23 - From the Church (Looking West)

Figure 24 - From the Church (Looking East)

There are no footpaths on the South side of the High Street and there are a number of obstacles (including signs and telegraph poles) that make the use of the narrow grass verge hazardous to pedestrians who might otherwise use this as a possibility to give them a better view of oncoming traffic. As previously stated, the visibility splays at this point are inadequate for pedestrians, as they also are for vehicles exiting Rusty Lane.

6.1.3 The Bus Stops

Figure 25 - The High Street Bus Stops

Two bus stops in the centre of High Street straddle the junction with The Lye.

At this point in the High Street the road width is 7.7[11] metres.

Although visibility is relatively clear from the bus-stop on the South side of the High Street, from the opposite side of the road the visibility is impeded by parked cars along the High Street to the East of the junction with the Lye.

This and the combination of the bus stop being on the junction makes a particularly difficult crossing point when traffic volumes and/or speeds are high.

It is also hazardous for drivers of cars trying to exit The Lye onto the High Street.

The location of the South side bus stop goes against good practice. If possible it should be relocated to the West with footway widening. See 11 Recommendations.

6.1.4 Love Walk

This is a popular walk for village residents and visitors to the village.

Figure 26 - Love Walk

It provides an access point to the public footpath that runs parallel to the High Street (on the South side), linking the churchyard and the junction between Inmarsh Lane and the A361 (See section 8.2). It also provides a route down the hill to the bottom of Inmarsh lane

The road width here is 7.5m.

[11] Between 8 and 9 seconds to cross: based on an average speed of 0.9 m/s.

7 Zone E – Spout Lane and Sells Green

Figure 27 represents the zone discussed in this section.

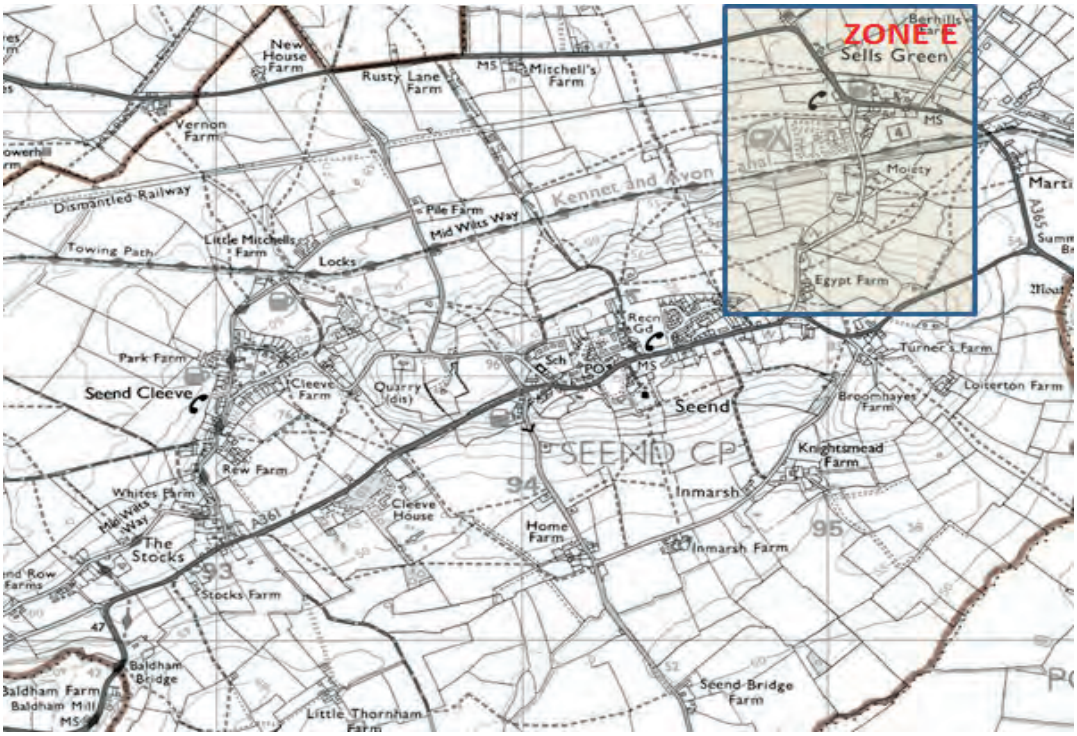


Figure 27 - Zone E

7.1 Spout Lane

Figure 28 - Spout Lane Canal Bridge (from the North)

Figure 28 shows the view as you approach the canal bridge from the North. There are no speed restrictions or warning of the single carriageway.

Figure 29 - Spout Lane (from the North)

Spout Lane continues to be an "unrestricted" route along its entire route, despite:

- Blind-spot on the canal bridge
- Regular presence of ice on the road in winter resulting from the springs that leach out onto the road at various points
- Presence of houses along the eastern side of the road
- Caravans turning in and out of the caravan site
- Vehicles parked along the western side
- Significant numbers of pedestrians & cyclists[12] using this as a route – particularly between the canal/village and the Three Magpies public house or the caravan site.

7.2 Sells Green

Residents at Rose Cottage Sells Green have reported 4 crashes on the A365 in the last 12 months (2016).

[12] Figure 29 shows a young child pushing their bicycle across the road by the bridge and completely invisible to vehicles approaching from the other sideof the bridge.

8 Zone F – Seend Fork and Eastern Approach to Village

Figure 30 represents the zone discussed in this section.

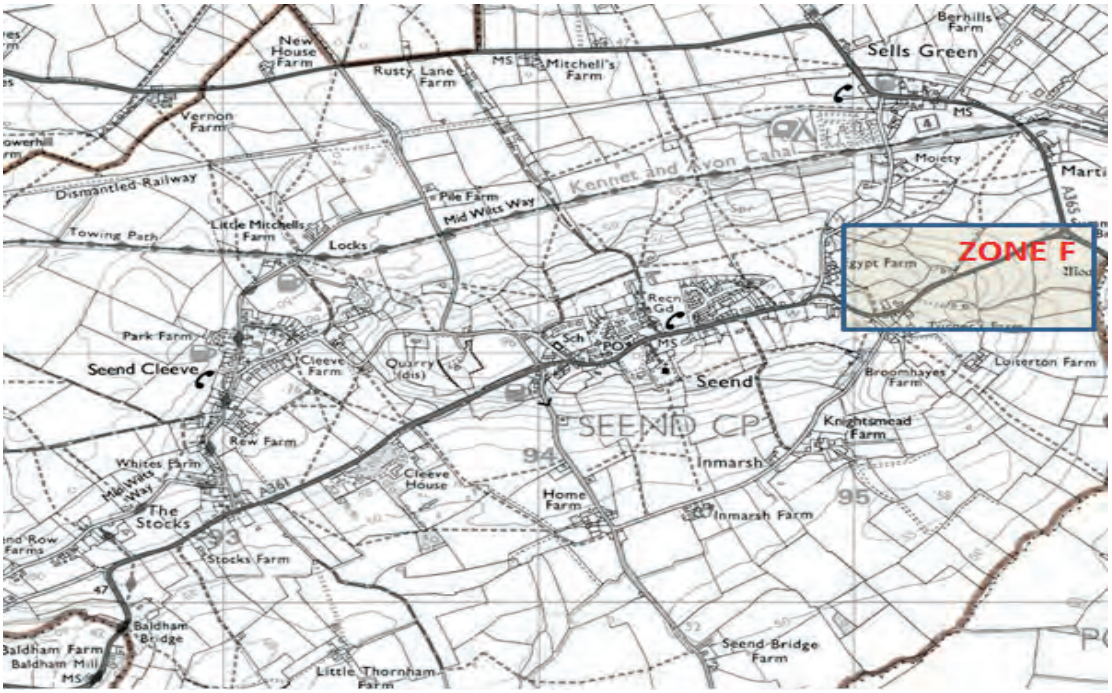


Figure 30 - Zone F

8.1 Approaching from Seend Fork

The bends at the East end of the High Street are poorly sign-posted and experience gained from the operation of Speedwatch is that many of the cars caught are exceeding the 30mph speed limit (only vehicles doing 36mph or above are recorded) at the point of exiting these bends.

Figure 31 - Approaching the bends by Inmarsh Lane

Figure 31 shows hidden signposting as you approach Inmarsh Lane on the left entering the bends at the Eastern approach to the High Street.

Figure 32 - Into the second bend.

Figure 33 - Looking East from the entrance to Inmarsh Lane

8.2 Hazardous crossing point near Inmarsh Lane.

Once in the bends you will notice that the footpath switches from the South side of the road (visible in Figure 33) to the North side of the road.

This is a particularly hazardous point to cross the road and is exacerbated by the lack of a continuous footpath along the South side of the road until the High Street becomes straight and a clearer view of oncoming traffic is possible.

Figure 34 - The footpath looking East

Figure 34 shows the view of the footpath if walking from the village on the North side of the road and to the point that the path crosses to the South side. At the time the picture was taken the footpath has also been partially blocked by a fallen branch.

The width of the road at this crossing point is 6.7 metres.

At the crossing point there is little visibility of traffic in either direction and it is only possible to cross by listening for traffic and hurrying across the road.

8.3 Seend Fork

Figure 35 - Approaching Seend Fork from Devizes

Wiltshire Council (See section 11) signs situated on the A365 approaching Seend Fork are ineffective in directing HGVs in accordance with the Wiltshire Council Freight Route Policy. The signs at the traffic lights are confusing and the presence of a filter lane encourages traffic to turn left rather than wait at the traffic lights. Furthermore, two signs are contradictory, one routes HGVs to Westbury and Trowbridge via A365 and a later one signals traffic to Trowbridge through Seend Village via A361.

HGV signs at the Semington roundabout where the A361 joins the bypass has not been integrated with the Wiltshire Council Freight Policy. Therefore, HGV traffic travelling East and West through Seend Village via the A361 is not part of an integrated policy.

9 Progress Since September 2015 (Version 1 of this Report)

9.1 Vehicle Activated Signal (VAS) at the Pinch Point

Signs have been erected during August 2016 to warn vehicles (over and above the static signs that already exist) of the possibility of oncoming vehicles in the middle of the road at the 'pinch point'. It is unclear yet whether this has made any discernible difference to the speed or nature (weight) of traffic passing through the parish along the A361.

Wiltshire Council have stated that:

"As with every other department, we have to target our limited resources to where they will be most effective and as such I would remind you that unless there are exceptional circumstances we will not accept another count request for this location or close surrounding area for another 12 months.".

This makes it unlikely that any measurement of the effectiveness of this in relationship to speed or weight of traffic will be achievable for another year. Possible improvements in safety and the avoidance of injury resulting from this investment need to be assessed.

9.2 Neighbourhood Plan Parish Highways – Workshop

On 9th June 2016 a Workshop was held in the Irene Usher Pavilion, Rusty Lane in an attempt to identify the areas of most concern to the Seend Parish residents.

Attendees were asked to identify on maps of the Parish with coloured dots the areas of their concern in relation to a number of questions. In addition, they were asked to supply 'post-it' notes with their comments and a note of the location to which their comments refer. The numbers in brackets indicate the number of 'post-it' stickers against each category.

The maps (described as 'heat maps') indicate the hotspots where concerns are concentrated for each section.

9.2.1 Volume of Traffic

Figure 36 - Heat Map (Volume of Traffic)

VOLUME OF TRAFFIC High Street, Bollands Hill and Baldham Bridge are all areas of major concern with local issues at School Lane during term time and Spout lane in the morning rush hour. Particular opinions are expressed over car parking giving local difficulties at the Post Office, Stocks, Canal (C20 and New Buildings) and School Lane.

9.2.2 Excessive Speed?

Figure 37 - Heat Map (Excessive Speed)

Seend High Street (38)

30 mph Speed enforcement

Seend Cleeve (30)

20 mph Pelch Lane, Row Lane and the whole village between the entry points on the A361 and the C20 (at the top and middle of Bollands Hill).

Mitchells Farm and New Buildings - No pedestrian protection for children walking to the school bus and canal car parking problems.

Pelch Lane and Row Lane – identified as being unsafe

Bollands Hill (16)

30 mph and inadequate road signs

Baldham Bridge (13)

30 mph

Rusty Lane (6)

Lack of local driver caution – speed and children's safety

A361 Leaving Seend to Trowbridge (14)

Extend 30 mph speed restrictions to include the Stocks and Baldham Bridge and between The Bell Hill cross-roads and the C20 from Worton

Sells Green (12)

30 mph on A365 and Spout Lane

SUMMARY - An extension of 30 mph speed restrictions and law enforcement within the Parish is clearly indicated. Traffic calming measures are also required

9.2.3 HGVs

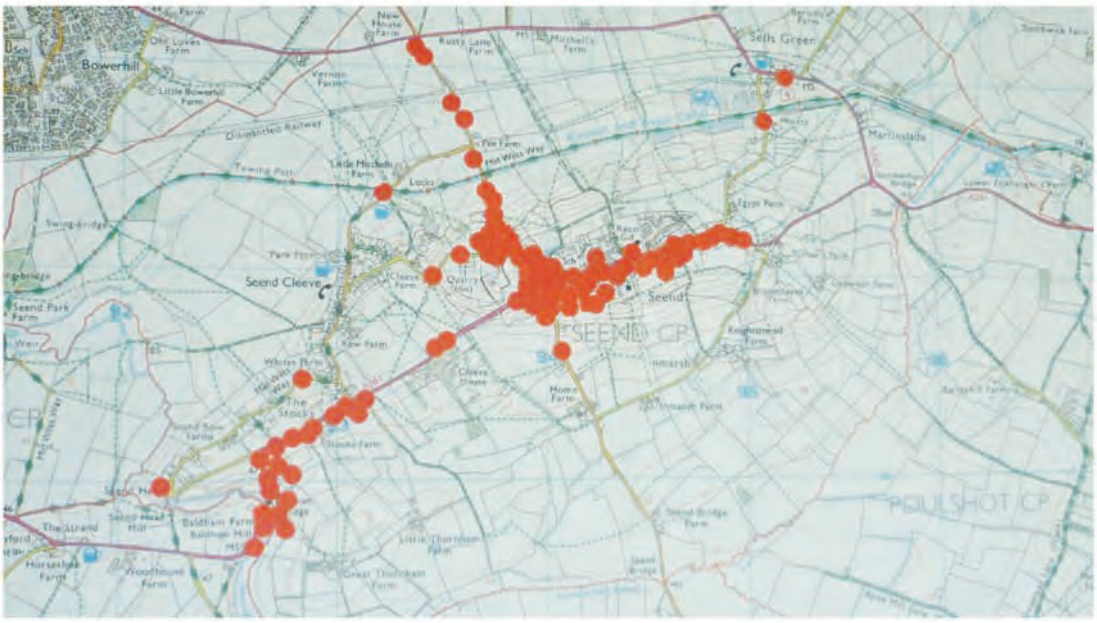


Figure 38 - Heat Map (HGVs)

High Street (inc. Bell Hill x-Roads) (55)

Bollands Hill (29)

Baldham Bridge (18)

SUMMARY A general wish to see a reduction in volume and weight restrictions placed upon HGVs within Seend Parish.

The validity of the Local Lorry Route status of the A365 impacting upon the volume of HGV traffic using the A361 through the High Street both day and night needs remedial action.

9.2.4 As A Non Driver – Where Do You Feel Unsafe?

Figure 39 - Heat Map (As a Non-Driver)

Pedestrian Safety (87)

Of Which:

The Church (26), School Road/Dial Close Pavement (12), Seend Park/Inmarsh (11), Mitchells Buildings (10), The Lye(7) (School Bus), School Road/ Weavers Cottages (7), Canal Bridge (7), Baldham Bridge (7)

Cyclists (20)

School Lane to Spout Lane - Bridleway access (10)

Rusty Lane/Canal Byway – Dangerous surface

Vehicle Parking

Canal Bridges C20, Barge Inn (Mitchells Buildings), The Stocks

General maintenance (44)

- Hedges
- Verges
- Public footpaths
- Signage visibility

9.2.5 Proposals

Attendees were also asked to provide their most critical problems and possible solutions: or to indicate agreement with those raised by others if already raised.

- Speed Enforcement
- HGV Weight Limits
- Traffic Calming
- 30 mph extension to Parish Boundaries
- Night Time HGV restriction on A 361
- Local Lorry Route (A365) enforcement
- Maintain private frontage verges
- Maintain Council roads, verges and hedges
- Road sign appraisal
- Pedestrian/cyclist/riding safety measures
- Footpath byway bridleway pavement maintenance
- Noise and traffic pollution reduction
- Road repairs/ replace defective drain covers
- Repainting of white lines

9.3 Improved Crossing Point by Seend Church

The Parish Council are considering and actively working towards improving the crossing point at the entrance to Seend Parish Church (See 6.1.1) – although currently any form of pedestrian sanctuary or form of traffic control lighting is not under consideration.

Parish Minutes from July 2016 reported “Councillors were in favour of approaching the CATG and Area Board for agreement for part funding for this project. The Clerk to request a formal quote for the works from Wiltshire Council…..”

10 CONCLUSIONS

It is very clear from the Neighbourhood Plan Parish Highways – Workshop (9th June 2016) that the people of Seend Parish are looking to the Parish Council and Wiltshire Council for solutions to the continuing concerns they have expressed over road safety.

Having carried out a survey of the road signs in Seend, an urgent review by Wiltshire Highways and Byways is recommended. The following deficiencies are in evidence:

- No effective traffic calming scheme has ever been introduced.
- The approach taken to defining the 30mph speed limit zone is haphazard. It does not take appropriate account of the risks at each zone entry point: thus failing to ensure that the boundary of the zone is correctly located in order to protect the residential areas.
- The 30 mph speed limit signs are scattered in an ad hoc manner and the DoT Traffic Signs Manual guidance notes and regulations have **not** been applied with any consistency: -

  For example, one 30 mph speed sign is placed within 25 ft. of the A361 and visible from less than 70ft (the stopping distance from 30 mph is 75 feet). Two accidents have taken place at this spot within the last 12 months from vehicles being unable to stop at this junction in time.

  Also, there are no 30mph repeater signs for the distance between the entrance and exit of the 30mph zone (some ¾ mile).
- Pedestrians must be protected with properly sited road crossings. There are none present and many pavements are unsafe or absent.
- The workshop identified a strong case for the introduction of 20mph speed restrictions in certain zones.
- The 'pinch point' at the east side of the High Street cannot safely accommodate HGV and buses.
- The present traffic arrangements for entering/leaving Weavers Cottages and School Lane from the A361 are hazardous.
- A comprehensive review of all white line road markings with particular attention being paid to the High Street.

11 RECOMMENDATIONS

'Speed Kills' and improved road safety means fewer accidents and less risk of personal injury to drivers, their passengers and pedestrians in Seend Parish.

Concerns have been expressed by many residents in Seend over the past 30 years concerning road safety. These concerns have been communicated to both Wiltshire County Council and, previously, Kennet District Council. Some actions have taken place since: notably the removal of an unused railway bridge on Bollands Hill, the reduction of the speed-limit in the High Street from 40mph to 30mph and, more recently, the erection of the vehicle activated signals (VAS) at the 'pinch point'.

However, the speed and weight of traffic continues to have a damaging impact on the wellbeing and character of the Parish and raises the risk of serious or fatal injury.

The recommendations of this Report fall into two categories[13]:

11.1 Recommendations for immediate consideration by the Parish Council

Provision of appropriate pedestrian protection (pavements and/or crossings) in the areas identified in this report; namely:

- Mitchells Farm and New Buildings (Seend Cleeve)
- Seend High Street
- The A361 between Inmarsh Lane and Seend Park
- A365 pedestrian crossing at Sells Green

The maintenance of hedgerows and verges that affect pedestrian access and sign visibility.

Attention to the sign deficiency highlighted at the Bell Hill cross roads and Bollands Hill.

11.2 Medium-Long Term for Incorporation into the Neighourhood Plan

Develop and implement a formal Local Transport Plan (LTP) for Seend Parish.

Perhaps more importantly it is essential that the Parish Council implements an effective means of communication to ensure that Seend Parish residents are informed of what action Wiltshire County Council proposes in respect to the concerns raised in this report.

The following topics require an agreed plan and prioritisation as part of the Neighbourhood Planning process:

- Appropriate speed restrictions
- HGV weight limits and numbers
- Traffic Calming
- 30 mph extension to Parish boundaries
- Night time HGV restriction of A361
- Review the classification and status of A361

[13] These two sections are to be completed with contributions from the Neighbourhood Plan Group.

- Local Lorry Route (A365) enforcement
- Maintenance of hedges impacting upon pedestrian safety or obscuring vehicle drivers sight-lines.
- Road Sign appraisal
- Pedestrian/cyclist/riding safety measures
- Provision of pedestrian crossings and/or refuges at key crossing points.
- Footpath, byway, bridleway, pavement maintenance
- Noise and traffic pollution reduction
- Road repairs/ replace defective drain covers
- Vehicle parking review

Recommendations from Peter Wiltshire for Seend High Street:

I have reviewed this SRSI Report insofar as the High Street is concerned (this being the extent of my site inspection) and have concluded that there are two particularly unsatisfactory items that the Highway Authority should address:

1. The Westbound bus stop location on the South side of the High Street opposite the Lye appears to have been so positioned because of the inadequacy of the width of the verge and proximity of certain private driveways. The carriageway should be narrowed to provide at least a 2m wide footway to and including the bus shelter – but moved West of the Lye bell mouth. The arrangement would then approach compliance with current safety standards of bus stop design. At present, passengers are positively encouraged to cross in dangerous positions.

Furthermore, provided there is sufficient width, pedestrian refuge islands should be installed for passengers to cross the carriageway in greater safety.

2. At the notorious 'pinch point' just East of Weavers Cottages, from an OS map scale 1250, the stopping sight distance (SSD) between lorry drivers approaching each other measures between 50 and 55m. I understand that the 85%ile speed has been measured at 34.9 mph. The SSD for an HGV on a horizontal wet road calculates at 59m. If I were designing a road alignment for such a location as this – which is neither urban nor rural, but somewhere in between – I would adopt a design speed of at least 60 kph to allow for the 15% of the driving population that is not acting reasonably. This would demand an SSD of 65m. I would therefore recommend that one-way working be installed by the provision of a wider footway on the North side, and a paved verge on the South – to provide better visibility for drivers emerging from School Road and Weavers Cottages. Detailed treatment of road markings, priorities and signing would need careful attention.

It is my belief that these two measures would improve safety and make the High Street far less attractive to HGV drivers. However, perhaps a 12 month experimental scheme should be attempted first, thereby testing efficacy and the noise effects.

Peter. J. Wiltshire – MICE, MIHT (retired), Committee member (retired) of the Transport Society and of the Transport Board of the Institute of Civil Engineers (2004). I began my career designing motorways in 1969 and have been responsible for numerous rural and urban highway and traffic management schemes since.

APPENDIX A

Traffic Signs Manual - Department for Transport

1.1 Road users depend on signs for information and guidance; highway authorities depend on signing for the efficient working and the enforcement of traffic regulations, for traffic control, and as an aid to road safety. Signing includes not only signs on posts but also carriageway markings, beacons, studs, bollards, traffic signals and other devices.

1.2 Signs must give road users their message clearly and at the correct time. The message must be unambiguous and speedily understood.

1.26 In order to perform the function for which it is intended a sign must be capable of transmitting its message clearly and at the right time to road users travelling at the normal speed for the road.

1.31 (b) If, as may be assumed, a driver needs a certain time to absorb a sign's message, the faster the speed of approach the further away must the reading of the sign commence. Reading must be completed and the message absorbed before reaching the point where concentration on a sign would distract attention too far from the road ahead.

1.40 In order to allow a driver adequate time to comply safely with its message each sign should be sited at the correct distance before the site to which it relates. This distance will generally depend on the speed value of the road.

Traffic Calming -Department for Transport March 2007

1.1.5 The Rural White Paper *Our Countryside: the future – A fair deal for rural England* (DETR & MAFF, 2000a) sets out how in rural areas traffic calming can help to reduce the impact of through traffic in villages and can help to make rural roads safer for recreational use by walkers, cyclists and horse riders.

1.1.11 Speed and accident reduction are not the only valid objectives leading to the introduction of a traffic-calming scheme.

1.18 It is generally agreed that, if drivers can be persuaded, through education and enforcement campaigns, to drive more slowly and with more consideration for other road users, then traffic calming measures would not be required. Until that day arrives, however, traffic calming provides a proven and effective way of saving lives and reducing casualties.

1.1.21 It is suggested that, as far as possible, the whole environment should be taken into account when considering the use of traffic calming measures.

2.7.2 It has been shown (Webster & Mackie, 1996) that pedestrian accidents were reduced by 63 per cent where 20 mph zones were introduced in the UK.

2.7.8 Where traffic speeds are low, it has been observed that some motorists give way to pedestrians crossing the road at locations that are not formal pedestrian crossing facilities.

3.2.2 A review of the first 230 zones in England, Wales and Scotland (Webster & Mackie, 1996) indicated that average speeds reduced by 9 mph, annual accident frequency fell by 60 per cent, the overall reduction in child accidents was 70 per cent, and there was an overall reduction in accidents involving cyclists of 29 per cent. Traffic flow in the zones was reduced on average by 27 per cent, but flows on the surrounding roads increased by 12 per cent. There was generally little measured accident migration to surrounding roads.

3.2.4 It is for local authorities to determine whether speed limits or zones should be used. They will need to decide whether the proposed type of speed limit is appropriate to the area, and beneficial in road safety and environmental terms. Equally important is that the form of speed limit chosen does not require unreasonable levels of enforcement by the police.

3.2.5 When the suitability of a 20 mph speed limit is being considered, the area or length of road involved will also have some relevance. It is generally recommended that 20 mph speed limits (including 20 mph zones) should be imposed over an area consisting of several roads and not just an individual road. There may be exceptions to this, but it is doubtful that a 20 mph zone on a single road would have a significant effect on speeds or accidents unless it was at least 500 metres in length with measures spaced at less than 100 metres apart. Accidents in those areas where 20 mph speed limits would be most successful seldom occur in particular locations, but are scattered throughout the area.

3.2.25 Gateways have been shown to be very effective in reducing vehicle speeds (see Chapter 7) but to achieve this they need to be conspicuous. This can present a particular challenge in sensitive conservation areas (see Section 3.7). The use of 20 mph limit repeater signs and roundels is unnecessary within a 20 mph zone as physical speed controlling measures will already be present.

3.3.1 Traffic calming measures have previously been used on 30 mph limit roads, either to ensure that 85th percentile speeds do not exceed 30 mph, or to secure substantial speed reductions to speeds well below this level. Where the installation of traffic calming measures on a 30 mph limit road is likely to reduce or control overall mean speeds (average of 'at' and 'between' the measures) to below 20 mph, it can be simpler and more beneficial for local authorities to implement 20 mph zones.

3.8.2 Signs alone may not be sufficient to reduce speeds to the desired level. In such instances, some form of physical engineering measures may be required to ensure that the speeds are reduced sufficiently and then controlled throughout the village. However, many rural main roads carry relatively high volumes of traffic, including commercial vehicles,

3.8.5 A sample of 24 village traffic calming schemes was selected for study in a Village Speed Control Study (VISP), most with existing 30 mph or 40 mph limits, which remained unchanged. Gateway treatments encompassed such measures as signing, pinch points, carriageway narrowings, surface treatments, 30 mph roundels, dragon's teeth markings, and transverse bar markings. The measures within the villages included speed cameras, mini-roundabouts, roundels, central hatching and islands, footway extensions, pinch points, carriageway narrowings, and pedestrian crossing facilities. The main points to emerge from the study were that:

a) Comprehensive measures are required throughout a village if significant speed reductions are to be obtained.

b) Gateways can reduce speeds in their vicinities by up to 10mph, but for reductions to be maintained in a village, additional measures need to be used.

c) The amount of speed reduction broadly mirrors the type of scheme: simple gateway signing and marking provides small reductions, while gateways comprising very striking visual measures combined with physical measures produce greater benefits.

d) The speed reductions are maximised when visually striking or physical gateways are accompanied by repeated physical measures.

Within the villages, the speed control measures included coloured patches with speed limit roundels, islands, refuges, centre hatching, speed cushions, mini- roundabouts, chicanes, speed cameras, a pedestrian crossing, and variable 20 mph limit signing. The results from this study (Wheeler & Taylor, 1999) complemented the previous work with the following main findings:

3.8.7 The study highlighted the importance of involving residents in the development of schemes and providing them with an understanding of what can be achieved. There is often a trade-off between scheme effectiveness in terms of vehicle speed and accident The study highlighted the importance of involving residents in the development of schemes and providing them with an understanding of what can be achieved. There is often a trade-off between scheme effectiveness in terms of vehicle speed and accident reduction, and potential unwanted side effects such as visual intrusion. The optimum solution will vary widely according to the situation.

3.8.8 The impact of village traffic schemes on accident frequencies, which included schemes in the VISP study, those in the major roads study and an additional sample of villages not previously studied, has also been examined. The accidents were classified by severity and type, and the villages (56 in total) were grouped by the type of measures installed, by traffic flow and by the speed reduction achieved. However the schemes were grouped, reductions were found in the frequency of all injury accidents (i.e. all severities) and accidents involving fatal or serious injuries (KSI), the majority of the reductions being statistically significant. **All KSI accidents across all villages were reduced by between one quarter and one half.**

Well-Maintained Highways - Code of Practice (316 pp.) TSO

Local Transport Plans (LTP's)

Funding available from Single Capital Pot Highway Asset Management Planning (HAMP).

9.2.6 Court action concerning what the Highways Authority could be reasonably expected to know and the condition likely to cause danger to users of the highway may be a significant factor to bear in mind in any litigation.

9.4.14 State of road in a schools area Risk assessment and recording in the Risk Register

9.14.1 Service inspections of pedestrian guardrails and risk assessments made every 2 years minimum

9.14.3 Category 1 (24 hour) remedial treatment for structural damage. See also 10.10.3/4

9.15.3 Vegetation inspections May-June

9.15.8 Give Way and Stop signs must be regularly inspected

9.15.9 Service inspections should ideally identify signing that is inappropriate or no longer necessary and may be a distraction to users, or detrimental to the street scene. Such signing should be noted for removal or replacement either as part of future programmed works or more urgently, if necessary.

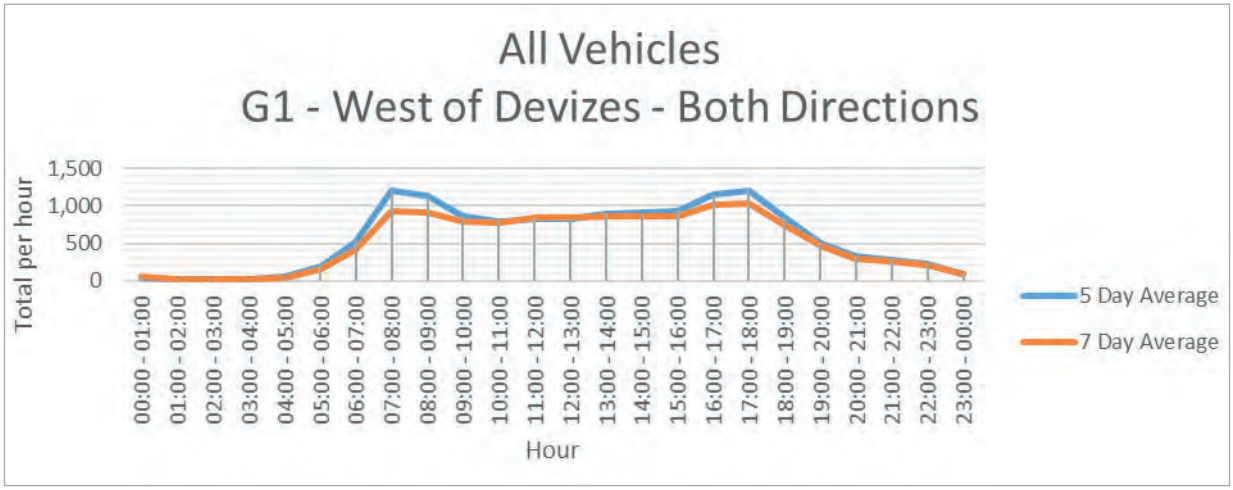
10.4.1 Footways Safety and serviceability

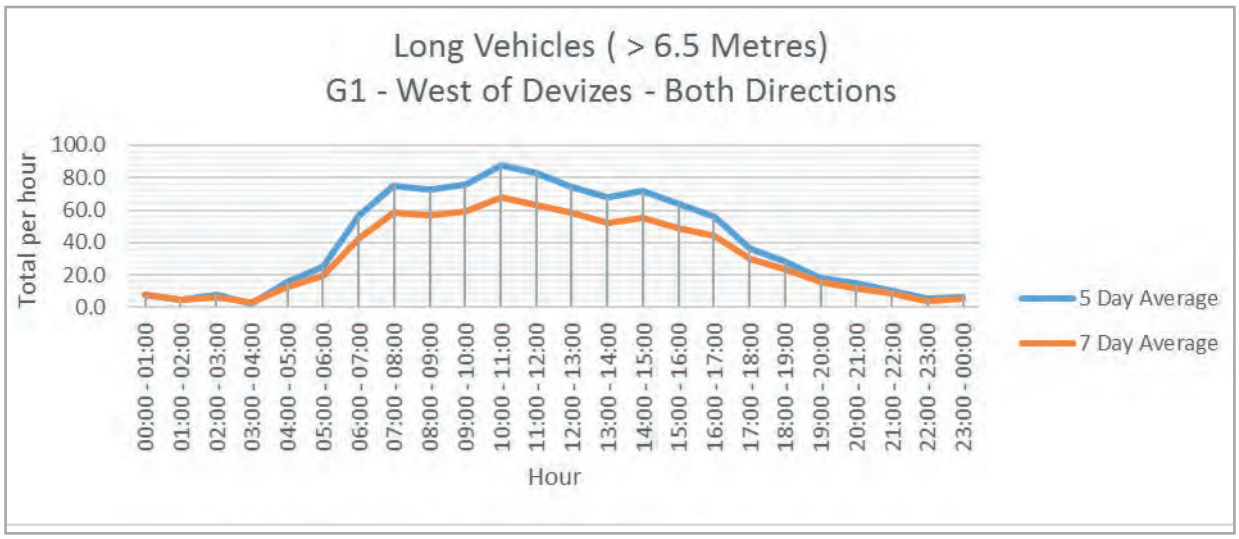
10.7 Highway drainage and safety (ice is a particular hazard)

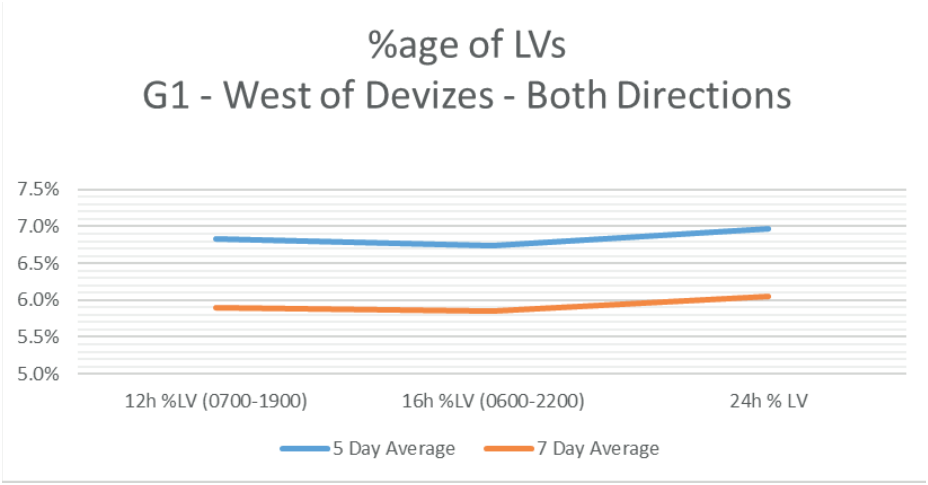
APPENDIX B – Analysis of ATC Freight Data

G1 – A361 West of Devizes

(Survey taken w/c 22 February 2016)



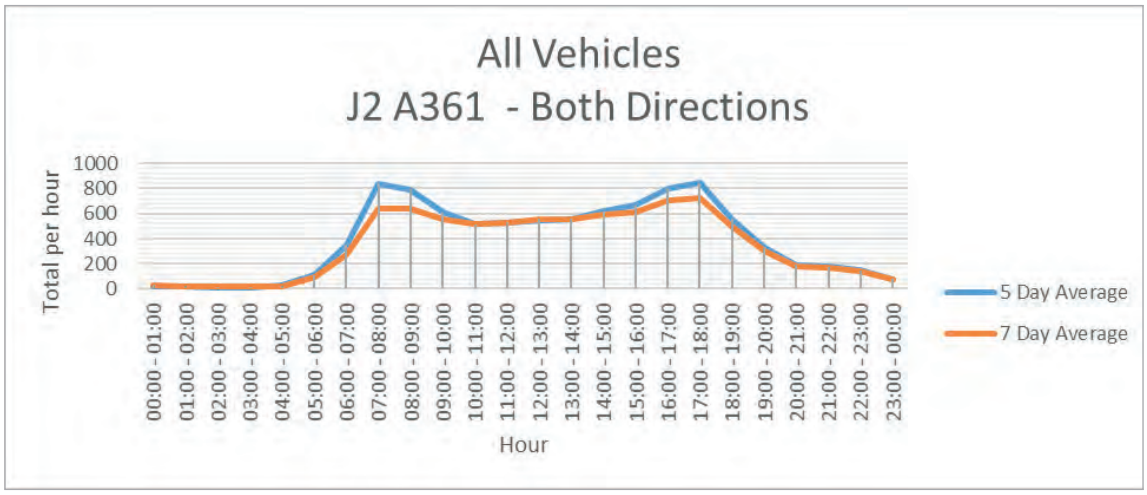


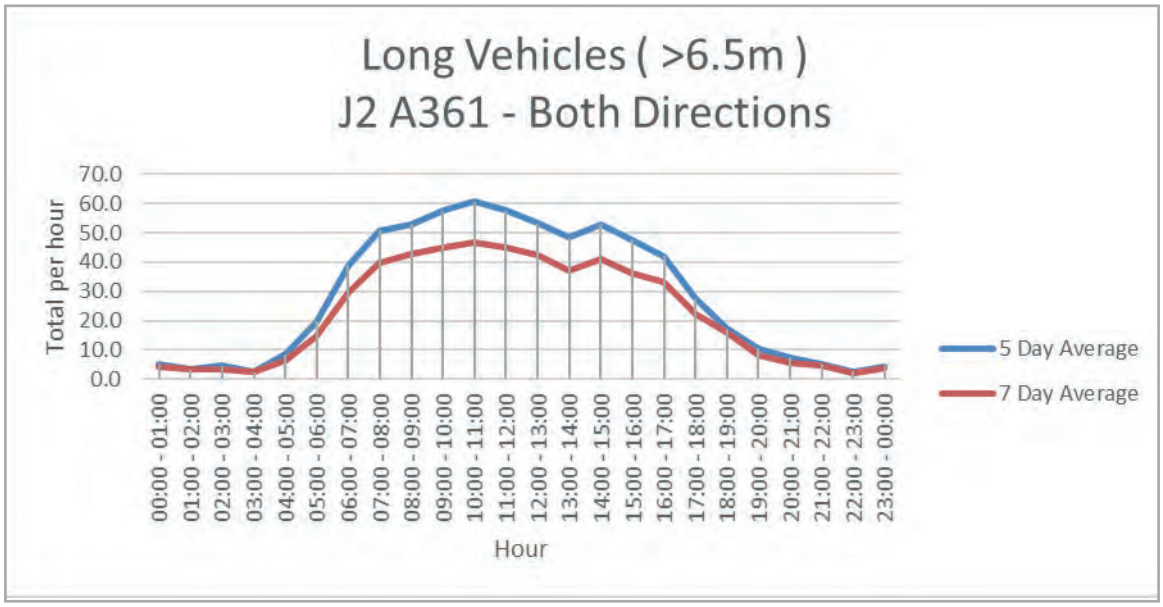


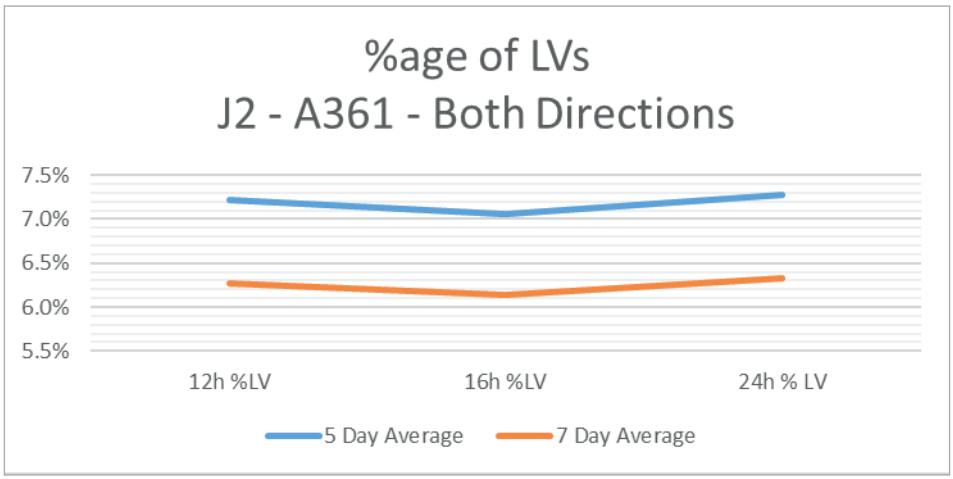
Indicates that higher proportion of LVs (to non-LVs) travel outside the hours of 0600-2200.

J2 A361 – East of Semmington Roundabout

(Survey taken w/c 22 February 2016)



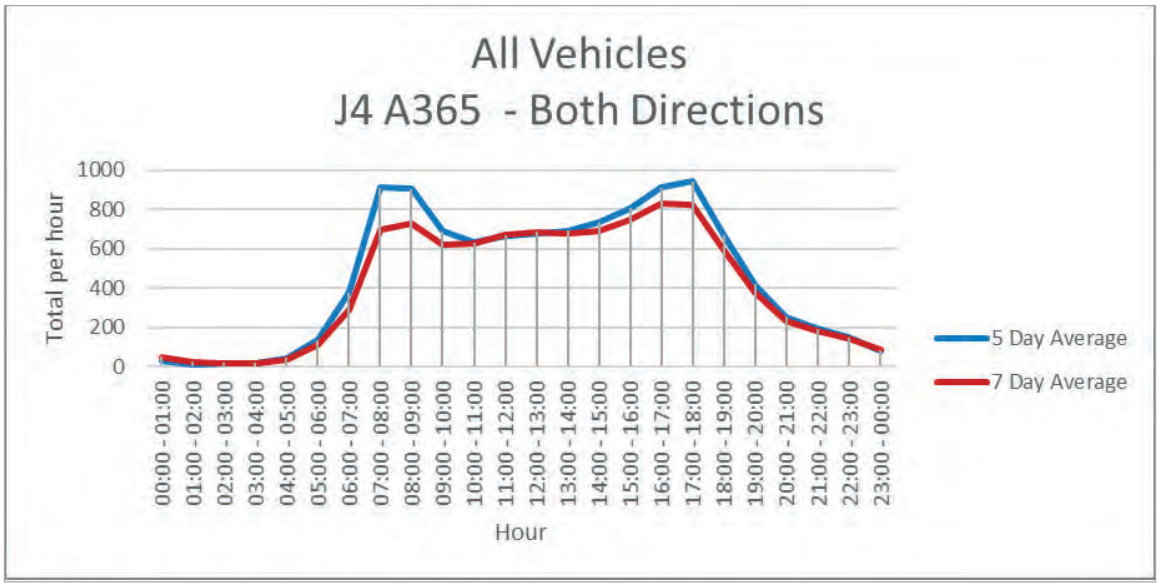


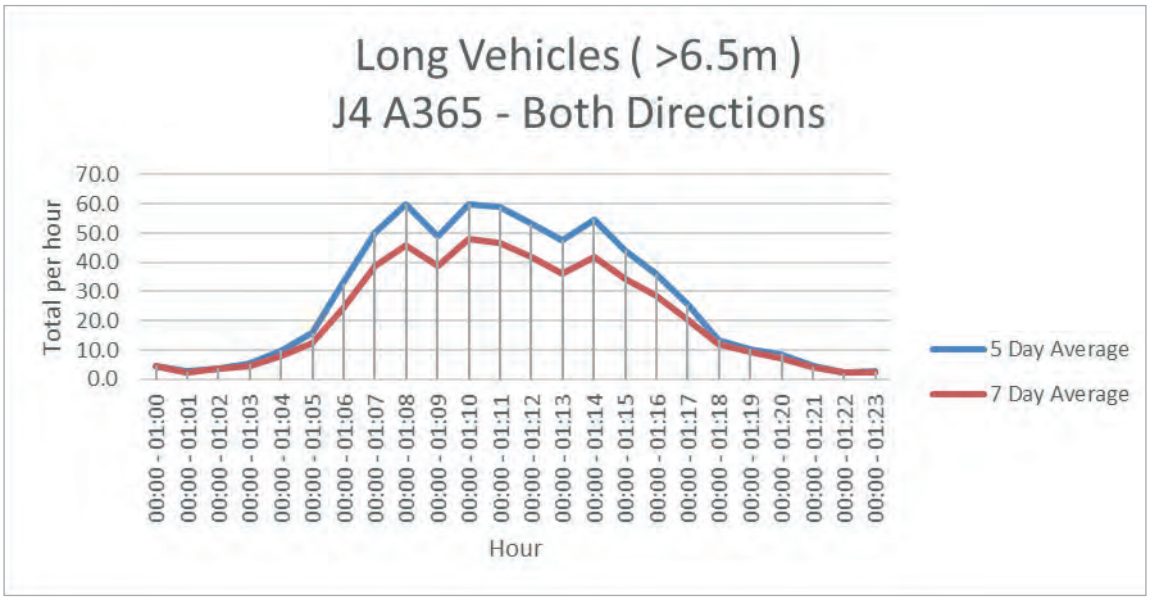


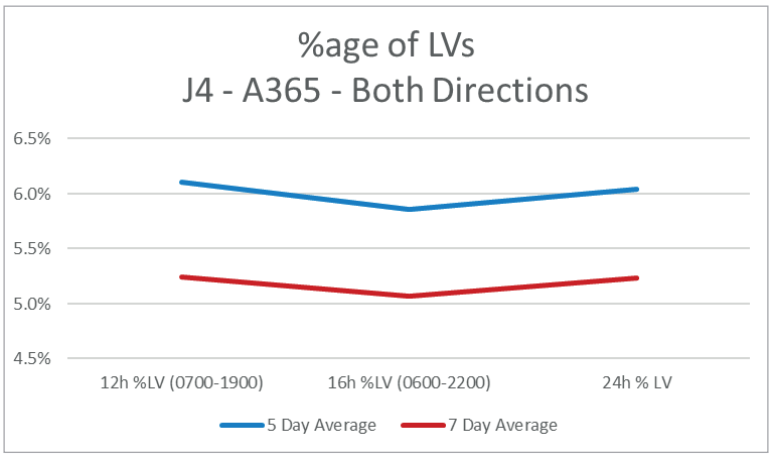
Indicates that higher proportion of LVs (to non-LVs) travel outside the hours of 0600-2200.

J4 A365 Bowerhill, Melksham - Week 1

(Survey taken w/c 2 December 2015)







J4 A365 Bowerhill, Melksham – Week 2

(Survey taken w/c 9 December 2015)