Traffic calming and safety in Kemerton

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1 Executive Summary

As our roads become busier, which is a national issue, Kemerton Parish Council in partnership with Overbury School feel that it is becoming increasingly important to protect our rural way of life and in particular, find some way to influence the negative impact of increasing volumes of traffic that pass through our village.

Traffic flows are eroding the peaceful country routes through our villages, this is giving rise to increasing concern amongst our residents relating to the preservation of our Area of Outstanding Natural Beauty (AONB) *(Appendix 1)* and also is promoting anxiety about road safety, particularly for local children.

Kemerton Parish Plan 2010 was produced from a questionnaire to which there was a 58% response from villagers. The Parish Plan clearly showed concern about the speed at which traffic enters and passes through Kemerton. Concern was also shown about the parking problem outside the village hall and shop/pub and for the safety of people using the pavements, especially those with disabilities, wheelchairs or prams, being obstructed by parked vehicles.

Kemerton Parish Plan 2010 – *see http://e-services.worcestershire.gov.uk/MyParish/ParishPlans.aspx?ParishID=128&PostCode=GL207JE&Prop=139589&partner=wdc&marriedto=0*

Kemerton has therefore been investigating the possibility of introducing some traffic calming and safety measures and this document summarises our findings and propositions on the subject.

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PRINCIPAL ISSUES THAT EXIST IN OUR VILLAGE

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These include:

- Concern that as local areas become more developed, the village becomes a 'rat run' to avoid major trunk road congestion
- Traffic numbers have been assessed in the autumn of 2014, indicating an average of 120 vehicles per hour now passing through the village at peak times
- Excessive vehicle speed through the entry, centre and exit points of the village (marked on the line drawing of Kemerton village)
- A mobile Vehicle Activated Sign (VAS) utilised in the village over the past thirty months has recorded daily averages of 808 vehicles per day exceeding the 30mph limit approaching from the Bredon end of the village, 160 vehicles per day exceeding the 30mph limit, heading east in the centre of the village and 348 vehicles exceeding the 30mph limit approaching the village from the Overbury end
- Excessive vehicle speed at a sharp corner by the village hall, where a daily children's preschool nursery is held – creating a safety issue for parents and other village hall users
- The village consultation process has indicated concern amongst residents with regard to pedestrian and motorist safety as a consequence of carriageway and pavement restrictions resulting from the high number of vehicles parked often in a continuous line and on both sides of the High Street
- Excessive speeds at a triple road junction, (High Street, Kinsham Lane and Jobs Lane)

3

KEMERTON HISTORY

Kemerton is a village and civil parish in Worcestershire. It lies at the extreme south of the county in the local government district of Wychavon. The northern half of the parish lies within the Cotswolds Area of Outstanding Natural Beauty (AONB).

Notable historic features include Kemerton Camp, an Iron Age hill fort surmounting Bredon Hill, thought to have been vacated suddenly after a considerable battle.

The village of Kemerton was known as Cyneburgincgtun in 840 AD. Charmingly situated on the south side of Bredon Hill, the village was in Gloucestershire until the boundary changes of 1933.

Kemerton's former parish church was demolished and rebuilt in 1848 after much controversy in the Victorian Gothic style. The old building was reputed to have been in very poor condition and the demolition was the work of the then rector, Archdeacon John Thorpe. Only the medieval tower remains of the original church (St Nicholas' Church). Today this may be considered a 'crime against heritage'. But at least Kemerton's original church can be seen in a photograph which hangs in the present church. St Nicholas' Church had an interesting and rather unusual feature for a parish church – there was a small room above the porch which was used as a priest's chamber.

The Roman Catholic church is dedicated to St Benet. It was consecrated in 1843. St Benet's has some of the finest old vestments in the country.

The village school, built in 1847 at a cost of £700, was closed in 1965 and converted into flats. The young children of the village now go to the neighbouring village school in Overbury.

The village hall, a focal point for residents, was completed in 1902 and named in memory of Queen Victoria. Kemerton also has a post office and a thriving general store.

One of Kemerton's most notable buildings is the Crown Inn. This one-time coaching inn and alehouse has its origins in the 18th Century, with its floor partly of slabs and its listed stone fireplace and wooden beams. At one time there was an interconnecting door to the adjoining property. This almost certainly provided the accommodation for travellers as adjoining the property was a hire business offering waggonettes and hunters for hire.

The village lays claim to some of Bredon Hill's most important archaeological features. Kemerton Camp and the Bambury Stone are both within this parish, as is Bell's Castle, built by a sailor (or rather a pirate or smuggler), Captain Edmund Bell, in 1825, with his criminally obtained wealth. He transformed a row of labourers' cottages into what is now a very fancy large house with battlements and turrets.

Many legends exist about Captain Bell's smuggling activities. It is believed he preyed on French ships and had his loot smuggled up river to Bredon and taken up the hill by packhorse or secret tunnel. It is said that Captain Bell's more illegal activities were brought to the attention of the law and he was hanged in 1841. Bell's Castle is now a private residence.

At the highest point on Bredon Hill is a square tower known either as Parsons' Folly or the Summer House. This folly was built by Mr Parsons of Kemerton in the 18th Century and can be seen for miles around. Each Good Friday, pilgrims from villages all around Bredon Hill climb the hill for a short service on top of the hill next to the tower.

The population of Kemerton is 400, this is a mixed rural community with a strong base of agriculture in its history. The parish is approximately 3.6 miles long by 0.7 miles wide and encompasses approximately 1,665 acres. It descends from the summit of Bredon Hill in the north, (elevation 300 m / 981 ft) to the Carrant Brook in the south (elevation 20 m / 65 ft). The north and south parish boundaries are recorded in a Saxon charter of the 8th-century.

The parish includes several important wildlife sites including the Kemerton Lake Nature Reserve and sections of the Bredon Hill Special Area of Conservation, which are managed by Kemerton Conservation Trust. Well known residents of Kemerton have included the anarchist publisher Charlotte Wilson and the bestselling author John Moore.

Kemerton is now widely recognised as one of the most historic and picturesque parishes in Worcestershire. It now boasts an exceptional built heritage, with two-thirds of its buildings dating from before 1850, and 41 out of 196 listed buildings.

4

TRAFFIC CALMING

What is it?

Traffic calming as a concept has been investigated and introduced widely across northern Europe since the 1930's, initially in Germany and Holland as well as further afield in Australia. In the UK there are now been many initiatives to reduce the pace of traffic through both urban and rural areas that have enjoyed a measure of success.

Initially, traffic calming was applied to certain areas of towns and particular shopping streets, but this has now been extended to main traffic arteries and also villages. Traffic calming schemes seek to ameliorate the impact of traffic on minor and residential roads in an area.

How does traffic calming work?

Traffic calming involves a range of in road and adjacent to the road related features that enhance the interest for drivers passing through the villages. Scientific studies have shown that if a driver has heightened visual interest (described as 'cognitive load') in the environment through which they are passing, then their perception of time alters in order to take in an interesting feature, such that they slow their driving.

Where has this worked already?

Examples of just a few villages in the UK where a broad range of successful traffic calming has been incorporated into local planning include:

1 West Meon (Hampshire)
2 Bibury (Gloucestershire)
3 Dunster (Exmoor, Dorset)
4 Lockeridge (Wiltshire)

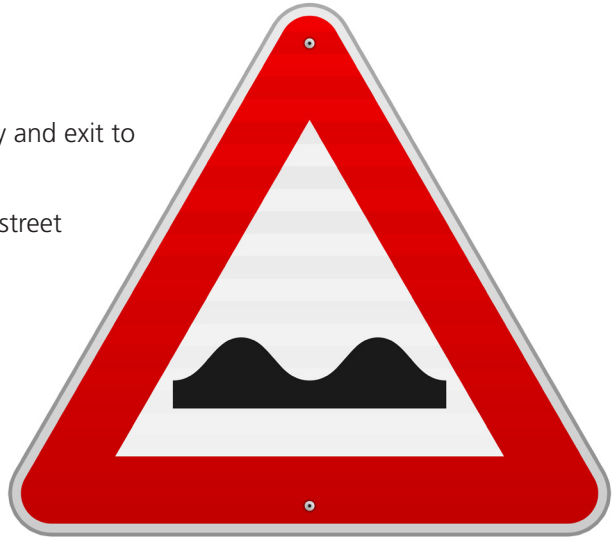
Detailed information produced by Bristol based transport, traffic and urban design consultancy, Hamilton Baillie summarises the way that a range of projects have worked in these villages. See their website on www.hamilton-baillie.co.uk

What are some traffic calming techniques?

General

Traffic calming schemes generally incorporate a wide range of measures designed to complement each other in both speed reduction and environmental terms. Schemes are designed to be self-enforcing, although the effectiveness of this varies according to the measures employed. The principle techniques used fall into five areas:

- Vertical deflections (road humps, plateaus, cushions and rumble strips on the road)
- Horizontal deflections (chicanes)
- Road narrowing (at specific points eg entry and exit to villages)
- Central islands (in the road, in addition to street furniture to draw attention to interesting features)
- Other methods (for example, facsimiles of real people near points of interest)



The effects of these measures may be reinforced by a range of supporting measures, as below.

- Supporting measures (A number of supporting measures are commonly used to back up the speed reducing techniques. The use of different surface materials, the planting of trees, 20mph speed limit signs and the use of facsimiles of children and adults near points of interest.)

There are 3 "E"s that traffic engineers refer to when discussing traffic calming: engineering, (community) education, and (police) enforcement.

5 EFFECTIVENESS OF TRAFFIC CALMING MEASURES – DO THEY WORK?

Speed reduction

Vertical shifts in the carriageway have a greater impact on vehicle speeds than any other measure. Provided that the humps or ramps are spaced sufficiently close together, studies have shown that the speeds of the majority are less than 20mph. Spacing should not be greater than 60m, and in general the height of the shift should be 100mm. Ramps with a shallow gradient need to be placed closer together than steeper gradients to achieve the same effect. For example 1 in 10 gradient ramps at 40m intervals have the same speed reducing effect as 1 in 7 gradient ramps at 60m intervals.

Other measures such as **lateral shifts, carriageway constrictions, roundabouts**, small corner radii and changes in priority have an impact on vehicle speeds, but the majority of speeds generally remain above 20mph, although average speeds may be below the 30mph threshold. See Appendix 2 & 3 for further information on traffic calming methods and relevant legislation.

Accident reduction

The impact of traffic calming schemes on accident levels is generally related to both the speed reducing effect of the scheme, and on any reduction in traffic levels as a consequence of it. Slower vehicle speeds not only reduce the occurrence of accidents, but also have a significant effect on their severity.

Over the past ten years pedestrian fatalities in some urban areas have fallen from 6.2 per 100,000 population to 2.3. This has been largely attributed to lower vehicle speeds as a consequence of heavy investment in traffic calming. An overall reduction in personal injury accidents of 42% has been achieved in the traffic calmed zones , with a reduction in fatalities of 53% since their introduction.

A review of 600 traffic calming schemes in Denmark (http://www.its.leeds.ac.uk/projects/primavera/p_calming.html) has indicated that there has been a reduction of 43% in casualties compared with untreated areas.

6

PARKING ISSUES IN KEMERTON

The number of cars parking on the High Street has greatly increased in recent times. There are two areas, one in the vicinity of the village hall and one by the shop and pub, where parked cars create a hazard for both traffic and pedestrians, especially those pedestrians with disabilities, wheelchairs or prams. Parking in both these areas create dangerous hazards by obstructing the road and pavements.

The Kemerton "Early Years and Forest School" is run in the village hall from Monday to Friday (9am to 12noon and 1pm to 3pm). When the school is open there are usually at least 5 vehicles parked nose to tail outside the village hall, some partially on the Green, with even more cars involved at drop off and collection times. The grassed area of the Green often gets damaged in wet weather and frequently requires repair.

Similarly, there are more cars parked near the shop and pub in the evenings and at weekends, on both sides of the road.

The Parish Council and villagers are most concerned about these parking issues and they need to be addressed before any accidents occur. The Parish Council believes that creating an official parking area on the Green could alleviate part of the problem by reducing the number of parked cars on the carriageway and pavement. The line of nose to tail parked cars would be lessened making it easier for traffic and pedestrians to pass in safety. However there would still be enough cars parked in the road to assist in slowing down traffic passing through the village.

The Highways Department has advised that it is unable to undertake such a parking scheme on the basis of the estimated initial capital costs. Any existing services below the proposed parking area would have to be relocated to allow access for future maintenance work. This, too, is likely to be expensive. The Parish Council understands it would have to raise the initial capital costs to fund such a scheme. As to future maintenance costs, these should be fairly modest and not arise for some considerable time.

The Parish Council is keen that the proposed parking area should maintain a natural grassed appearance in order to preserve the ascetics of the village. It is also important to have a self-draining surface that would not require run-off drainage and the subsequent need for extensive offsite maintenance works. The Parish Council has concluded that "Grasscrete", a reinforced concrete system with voids that can be filled with earth and later grassed so as to create a pervious parking area, would be suitable and prove extremely hard wearing.

7

TRAFFIC MEASUREMENT AND CONSULTATION With Kemerton residents and businesses

A consultation questionnaire was prepared to gather the villagers' and local businesses opinions on the Traffic Calming plan proposed on page 13. This questionnaire (see Appendix 4), and the plan, were both placed online at Worcestershire County Council website and in Kemerton Stores and Post Office and St Nicholas' Church during the month of July 2014.

A total of fifty six questionnaires were completed and returned. Eighteen were completed online with the remaining thirty eight using the printed questionnaires that were left in the church and shop. Unfortunately not all of the paper based questionnaires were completed fully but useful conclusions can still be gathered from them. A couple of letters were also received about the initiative.

Summary of the key findings

- The majority of people consider that there is a problem with speeding through the village and would like the Parish Council to take action at reducing the speed at which vehicles travel.
- The Vehicle Activated Sign (VAS) was seen as the main deterrent to speeding but the decorative gates, a 20mph sign, cobblestones and speed humps all scored similarly with around 13% each of the vote.
- Villagers clearly want to see safer parking at the village hall. Two thirds of those surveyed said that they would like off street parking, but without a designated disabled parking space.
- A villager led, speed gun initiative (Community Speedwatch) was thought to be a good idea and 9 people were interested in being trained by the Police.

The full results can be seen in *Appendix 5*

In October 2014 a traffic measurement study was undertaken by the Parish Council and local volunteers. This study counted the volume of traffic that entered Kemerton from both Overbury and Bredon directions. The results showed that, on average there were 120 vehicles per hour entering the village. Full results in Appendix 6.

8

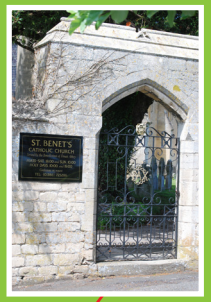
KEMERTON Maps and supporting diagrams

(i) Village layout & photographs

(ii) Line drawing – how it could be

(iii) Why we have chosen these options

Kemerton

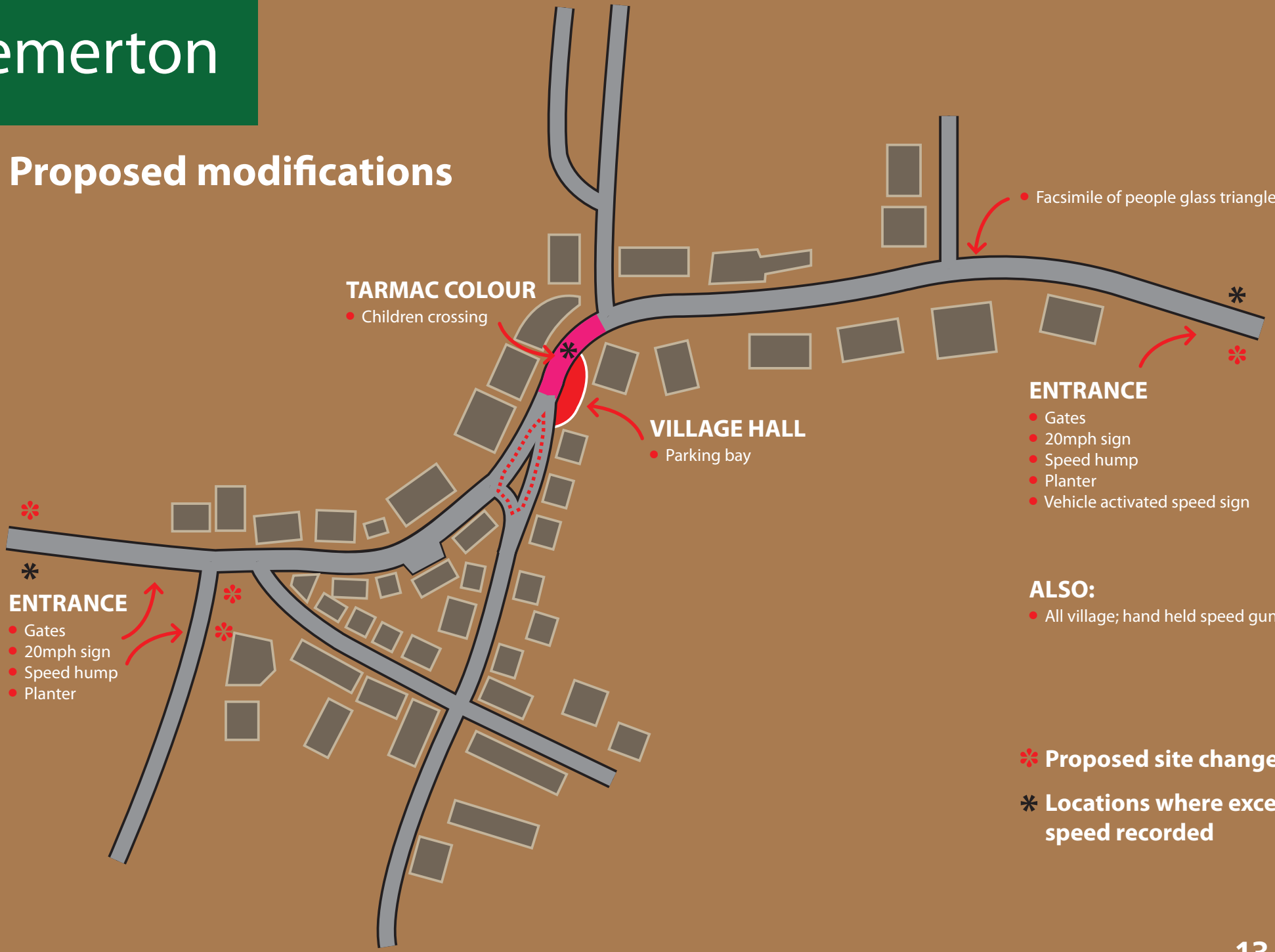



30
TEWKESBURY 5 M
KEMERTON
EVESHAM 10 M


TEWKESBURY 5
CHELTENHAM 10

Kemerton

Proposed modifications



ALSO:

- All village; hand held speed gun

❊ **Proposed site changes**

✱ **Locations where excessive speed recorded**

9

SUMMARY & CONCLUSIONS

Over the past 2 years Kemerton Parish Council has been collecting data, consulting with the local community and analysing questionnaire and traffic count results. This has resulted in a comprehensive traffic calming proposal that is based on local knowledge and data, but has also taken into account nationally documented facts and figures on traffic calming and management.

There are several approaches that the Parish Council can use to address traffic calming and safety in Kemerton and they are as follows;

- Community Speedwatch (training completed on March 16th 2015)
- Decorative entrance / exit gates
- 20mph speed signs
- Speed humps / vertical shifts
- Modification of road surfaces
- 7.5 Ton weight limit
- Ribbon style parking facility on the village green

The items listed 2 to 6 above will need to be approved by Worcestershire County Council. To the extent approval is given for an item but not implemented by the County Council funding will be raised and sought by the Parish Council, where possible by way of third party funding (ie grants).

The Parish Council seeks the support and endorsement of the County Council for these proposals, and looks forward to discussion with the County Council about the latter's role in and contribution to their implementation.

10 Appendix

1 - COTSWOLDS AREA OF OUTSTANDING NATURAL BEAUTY (AONB)

The primary purpose of AONB designation is to conserve and enhance the natural beauty of the UK's most outstanding landscapes. *The Countryside and Rights of Way Act, 2000 (Part IV)* confers equal protected status on AONBs as on National Parks, with relation to conserving and enhancing natural beauty.

It also gives very strong powers to planning authorities to enforce this. It further places a statutory duty on planning authorities and public bodies to "have regard to the purpose of conserving and enhancing the natural beauty of the AONB". It is worth noting that this statutory duty relates to any matter which may "affect land in an AONB" and can thus extend beyond the boundary of the AONB itself.

2 – TRAFFIC CALMING – A BIT MORE DETAIL

Vertical deflections

Raised areas (plateau), flat top road humps and cushions are effective speed reducing measures. Approaches can make use of an uneven road surface which is useful for slowing down traffic, particularly HGVs.

Horizontal deflections

This technique involves narrowing the carriageway that all traffic that moves through the chicane have to deviate from a straight ahead path. This measure is fairly effective in reducing the speed of straight through traffic, however priorities may become confused as the boundaries of the chicane are sometimes less recognisable.

Road narrowing

The area of a road narrowing junction may be reduced by building out the footways. Tree planting, gateways and marker posts have been used in addition to building out footways to mark the entrance to villages. The entrance to a traffic calmed area requires special attention to make it clear to drivers that the area they are entering has speed restrictions and conditions very different from the surrounding network.

Central Islands

The provision of islands in villages has only a limited effect on vehicle speeds. They will however improve the situation for pedestrians by creating a refuge, although by reducing the amount of carriageway they may hinder large vehicles passing through.

Other methods and supportive systems

Some villages have adopted the use of human facsimiles near the road. These are very lifelike and may be children playing, farmers carrying a load or policeman with a reflective jacket and a raised. All have been shown to lead to traffic slowing.

Supportive systems can include the introduction of a 20mph zone, with associated signage, rumble strips, a change in the colour of the road surface or a change in texture to enhance a particular feature (eg war memorial or an historic feature)

3 - WHAT LEGISLATION IS THERE IN THE UK IN RELATION TO THIS?

Extract from dept transport research paper March 2007

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. Encouraging recreational use of the countryside is one of the elements in supporting diversification in the rural economy in order to preserve rural services.

The 'speed policy review' recognised road humps, chicanes and other road engineering measures as currently the most effective method of reducing vehicle speeds in urban (and some rural) areas. It found that there was no evidence that, when negotiated at sensible speeds, these cause damage to vehicles. However, along strategic routes for emergency services, consideration needs to be given to the most appropriate design that can minimise delay to emergency services while at the same time reducing and controlling the speed of other vehicles. A similar consideration needs to be given to bus routes.

The paper outlined that speed and accident reduction are not the only valid objectives leading to the introduction of a traffic calming scheme. Other objectives may include encouraging non-motorised users, improving the local environment and reducing community severance. All objectives should be clearly stated at the outset and should tie in with both the authorities' strategic objectives and the needs and desires of the relevant stakeholders. A traffic calming scheme can provide an opportunity for the local community to get involved in the redesign of their street

The safety strategies should include speed management to achieve safe vehicle speeds on all roads, and ensure that the speed limits set are appropriate, consistent and enforceable. Traffic calming measures should be employed to encourage both speed reduction and compliance with the limits. Particular attention will need to be given to locations where child casualties occur, including roads around schools, the routes children use to get to and from school and residential areas where they are more likely to play, walk or cycle unsupervised. The Travelling to School initiative is encouraging schools and local authorities to put in place travel plans, which may contain traffic calming measures.

4 – TRAFFIC CALMING QUESTIONNAIRE, July 2014

Kemerton Parish Council Traffic Calming Questionnaire

Please read the Traffic Calming Plan and Proposal before completing this questionnaire. Once it has been completed please fold it and post through the letterbox at Kemerton Village Hall. **Please return by 01.08.14**

Question 1: Do you think there is a problem with speeding in either Kemerton and/or Overbury?

Yes ☐ No ☐

Question 2: If yes, do you think that the parish council should be looking at reducing traffic speed through Overbury and Kemerton?

Yes ☐ No ☐

Question 3: What traffic calming measures would you like to see implemented to reduce speed through the villages of Overbury and Kemerton? Please circle all that you would like to see implemented.

Speed Humps	☐	20 mph sign	☐
Cobblestones in small area	☐	Decorative Planter	☐
Vehicle Activated Speed Sign	☐	Coloured Road Surface at school/playschool	☐
Illuminated sign to indicate school/ playschool crossing	☐	Decorative gates that indicate you are entering a village	☐
Facsimile of people to create interest	☐	Other: Please indicate	

Question 4: Please rank the traffic calming measures and their importance to reducing traffic speed using a 1-9 scale (where 9 is most important).

Speed Humps 1 2 3 4 5 6 7 8 9	20 mph sign 1 2 3 4 5 6 7 8 9
Cobblestones in small area 1 2 3 4 5 6 7 8 9	Decorative Planter 1 2 3 4 5 6 7 8 9
Vehicle Activated Speed Sign 1 2 3 4 5 6 7 8 9	Coloured Road Surface at school/playschool 1 2 3 4 5 6 7 8 9
Illuminated sign to indicate school/ playschool crossing 1 2 3 4 5 6 7 8 9	Decorative gates that indicate you are entering a village 1 2 3 4 5 6 7 8 9
Facsimile of people to create interest 1 2 3 4 5 6 7 8 9	Other: Please indicate 1 2 3 4 5 6 7 8 9

Question 5: Would you like off street parking bays by Kemerton village hall if they could be sympathetically designed and not affect the aesthetics of the village?

Yes ☐ No ☐

Question 6: If yes, should there be a designated disabled bay?

Yes ☐ No ☐

Question 7: Do you think the parish council should try to work in partnership with the police to monitor speed through the village using hand held speed cameras? A minimum of 6 villagers would have to be vetted and trained to do this.

Yes ☐ No ☐

Question 8: Would you be prepared to be trained to use a hand held speed camera within the village?

Yes* No

Question 9: If yes please fill in your name, contact number and email address below and someone will be in touch.

Name

Email

Contact number

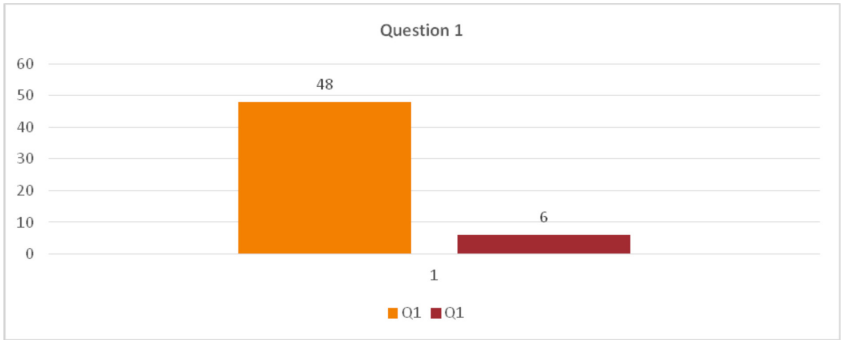
Thank you for taking the time to complete this questionnaire.

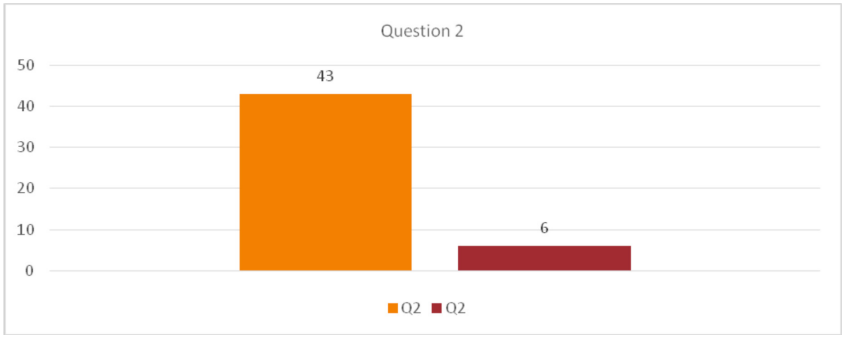
5 QUESTIONNAIRE RESULTS

Question 1: Do you think there is a problem with speeding in either Kemerton and/or Overbury?

Question 2: If yes, do you think that the Parish Council should be looking at reducing traffic speed through Overbury and Kemerton?

It is clear to see from the graph that 89% of those who answered the questionnaire do think that there is a problem with speeding within our villages. They also think that the Parish Council should be looking at ways to deal with it. However, there is a small percentage that think ***"The parked cars slow people enough!"***





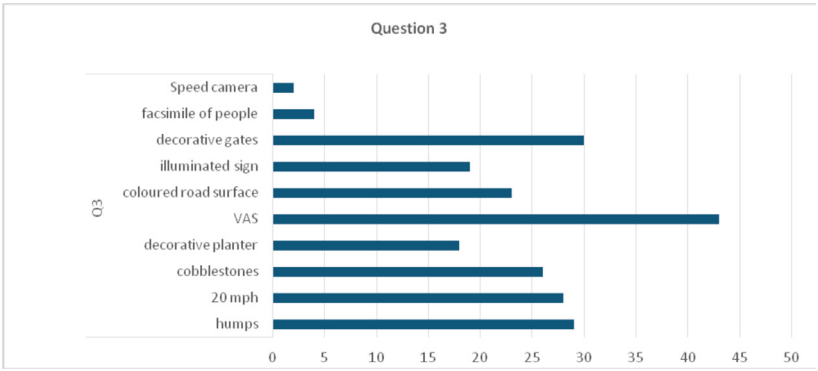
Question 3 & 4: What traffic calming measures would you like to see implemented to reduce speed through the villages of Overbury and Kemerton? Please circle all that you would like to see implemented.

The majority of those surveyed were clear that the VAS is something that they believe is effective at reducing speed. It is therefore fortunate that the Parish Council already use this device. Although it was mentioned on more than one occasion that when it is positioned at the Boundary Cottage end of the village it goes off before the vehicle has reached the 30mph zone.

Decorative gates, cobblestones, a 20mph sign and speed humps all scored similar values and were the next most favoured methods of reducing speed. It was noted that cobblestones around the war memorial would not be a good idea as it is a bus stop and it could make it difficult for elderly residents to wait there. The facsimiles of people seemed to create comments along the lines of ***"They would scare horses and cause accidents ..."***

Other suggestions that were made:

- 40mph/reduced speed limit between Kemerton and Overbury
- 7.5 tonne weight limit for vehicles passing through the village
- Road narrowing chicanes
- Speed camera



Question 5: Would you like off street parking bays by Kemerton village hall if they could be sympathetically designed and not affect the aesthetics of the village?

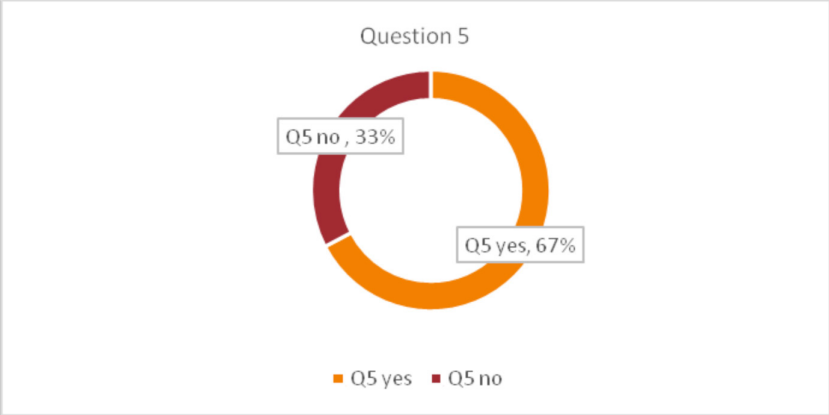
Question 6: If yes, should there be a designated disabled bay?

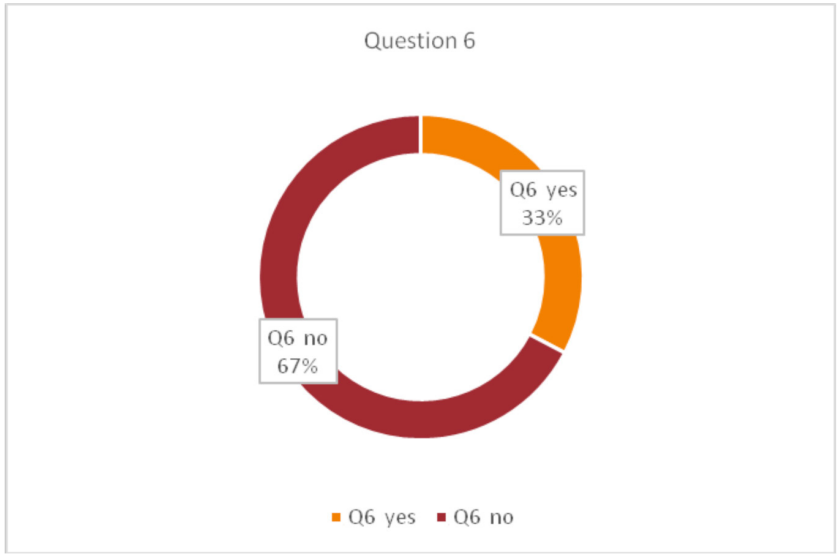
The majority of people would like to see parking available at Victoria Hall but do not believe that there should be a designated disabled parking space due to ***"Insufficient space and would limit use".***

There were many strong feelings expressed about parking spaces with the main ones being that it could be dangerous to have cars reversing out onto the road and that it would spoil the look of the village.

"Hell no – AONB village NOT a supermarket"

There is recognized need for parking yet there is concern about the overall look of the village being spoiled by it. Alternative solutions were to paint double yellow lines at the hall, tell users to park at St Benets church and walk, and also relocate the hall.



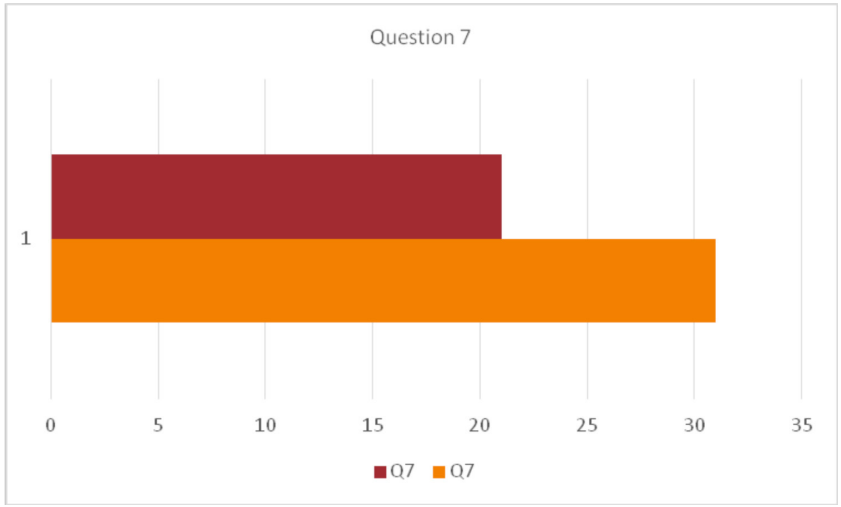

Question 6
Q6 yes
33%
Q6 no
67%
Q6 yes
Q6 no

Question 7: Do you think the parish council should try to work in partnership with the police to monitor speed through the village using hand held speed cameras? A minimum of 6 villagers would have to be vetted and trained to do this.

With 60% saying that they would like this to happen it also raised an interesting issue not related to speeding directly. The issue being that whilst it may reduce speed it could also create neighbourhood tensions if a villager was caught speeding by a fellow villager.

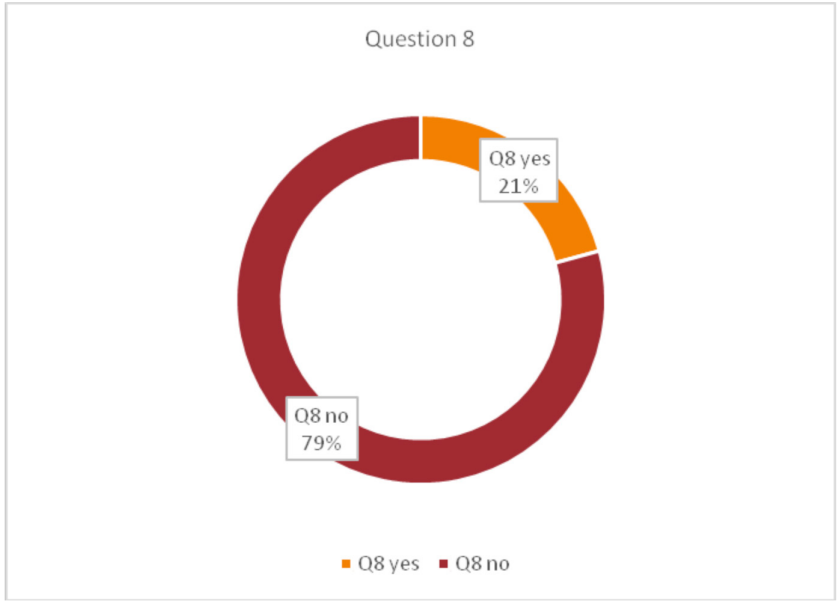
"Other village surveys show you catch locals – you are asking for trouble"

"It would create neighbour disputes when locals inevitably get caught"



Question 8: Would you be prepared to be trained to use a hand held speed camera within the village?

The majority of people surveyed did not want to trained, with most stating that they did not have enough free time to do it. However, nine volunteers did come forward.



6. TRAFFIC COUNT DATA, OCTOBER 2014

Vehicle Type	Time							
06-Oct	8-9am	9-10am	10-11am	Total	3-4pm	4-5pm	5-6pm	Total
Car	149	75	54	278	85	111	138	334
Motorbike	0	0	1	1	0	0	0	0
Tractor	1	0	0	1	0	1	0	1
Lorry	2	2	0	4	1	2	0	3
Bus	3	0	2	5	0	4	1	5
Cyclist	0	0	0	0	0	0	5	5
Van	11	13	12	36	11	11	17	39
Total per hour	166	90	69	325	97	129	161	387

Vehicle Type	Time							
07-Oct	8-9am	9-10am	10-11am	Total	3-4pm	4-5pm	5-6pm	Total
Car	160	73	64	297	80	135	98	313
Motorbike	1	0	0	1	0	1	0	1
Tractor	2	0	1	3	0	0	2	2
Lorry	4	1	0	5	1	1	1	3
Bus	4	1	2	7	1	3	0	4
Cyclist	0	3	3	6	2	3	7	12
Van	31	13	10	54	12	12	10	34
Total per hour	202	91	80	373	96	155	118	369

Vehicle Type	Time							
08-Oct	8-9am	9-10am	10-11am	Total	3-4pm	4-5pm	5-6pm	Total
Car	116	74	55	245	82	100	113	295
Motorbike	1	0	0	1	0	2	0	2
Tractor	0	0	1	1	1	0	0	1
Lorry	5	0	1	6	0	1	0	1
Bus	4	1	2	7	0	3	2	5
Cyclist	12	0	2	14	0	1	1	2
Van	18	12	15	45	13	13	14	40
Total per hour	156	87	76	319	96	120	130	346

Vehicle Type	Time							
09-Oct	8-9am	9-10am	10-11am	Total	3-4pm	4-5pm	5-6pm	Total
Car	145	82	65	292	95	129	107	331
Motorbike	1	0	1	2	0	0	0	0
Tractor	1	0	0	1	0	0	0	0
Lorry	3	1	1	5	2	0	0	2
Bus	3	1	2	6	2	1	3	6
Cyclist	0	0	1	1	0	1	0	1
Van	25	15	9	49	17	17	19	53
Total per hour	178	99	79	356	116	148	129	393

Vehicle Type	Time							
10-Oct	8-9am	9-10am	10-11am	Total	3-4pm	4-5pm	5-6pm	Total
Car	137	94	57	288	102	120	110	332
Motorbike	1	1	0	2	2	0	0	2
Tractor	0	1	0	1	0	0	1	1
Lorry	5	0	1	6	2	1	2	5
Bus	3	1	1	5	2	2	2	6
Cyclist	1	3	0	4	3	4	3	10
Van	23	19	14	56	9	9	10	28
Total per hour	170	119	73	362	120	136	128	384

Vehicle Type	Time		
11-Oct	9-10am	10-11am	Total
Car	66	102	168
Motorbike	0	0	0
Tractor	0	1	1
Lorry	0	1	1
Bus	0	2	2
Cyclist	2	14	16
Van	6	8	14
Total per hour	74	128	202

Vehicle Type	Time		
12-Oct	9-10am	10-11am	Total
Car	71	52	123
Motorbike	1	2	3
Tractor	0	0	0
Lorry	0	0	0
Bus	0	0	0
Cyclist	15	7	22
Van	2	4	6
Total per hour	89	65	154