

## Speed Cushions, West Hill Road, West Hill

Report of the Head of Highways, Capital Development and Waste

***Please note that the following recommendation is subject to consideration and determination by the Committee before taking effect.***

**Recommendation:** It is recommended that approval is given to the introduction of speed cushions on West Hill Road, West Hill as detailed on drawing no 03PN284/12A.

### 1. Summary

Approval is sought to construct three pairs of speed cushions where each cushion is 3.5 metres long, 1.6 metres wide and 75mm high on West Hill Road, West Hill, Ottery St Mary at a point 20 metres south-west of its junction with Ashley Brake and a point 45 metres and 105 metres north-east of that junction as shown in diagram 03PN284/12A.

### 2. Background

A report was brought to the March Committee seeking approval for the installation of speed cushions on West Hill Road, West Hill. It was resolved that *“the decision be deferred until the next meeting and that speed checks at the location and consultation with local residents be undertaken and the results be brought to the next meeting of the Committee.”*

Speed cushions were included within the scheme to address three issues.

1. The safety audit for the footway improvement scheme recommended the introduction of traffic calming features to reduce vehicle speeds due to the likely presence of pedestrians in the carriageway where no footway will exist.
2. *Department for Transport (Dft) Circular 1/2013, Setting Local Speed Limits* updates previous Dft advice to the effect that 20mph Zones must include at least one Traffic Calming Feature as defined in Direction 16 (2) of the Traffic Signs and General Directions 2002. In this case it is felt that 3 sets of Speed Cushions would be appropriate to achieve a continuity of approach both through and on the approach to the section of road without benefit of a footway.
3. Inappropriate Speed

Speed checks undertaken from 8 June 2014 to 7 July 2014, adjacent to the property named Beeches, demonstrated that vehicle speeds are generally in excess of the 20mph limit:

N/E Bound 85% = 28.1mph mean = 22.7mph  
S/W Bound 85% = 28.5mph mean = 23.5mph

Further speed checks were undertaken between 28 March and 25 April 2015 following the construction of the footway. These results were consistent with those undertaken prior to the construction.

N/E Bound 85% = 27.2mph mean = 22.2mph  
S/W Bound 85% = 28.7mph mean = 23.6mph

The speeds taken both before and after construction of the footway indicate that mean speeds are at a level normally regarded as compliant with a 20mph Zone. However, it is of concern that 85<sup>th</sup>ile speeds are fairly high indicating that a significant proportion of drivers are still exceeding the limit by a significant margin.

In a situation where vulnerable road users are using the carriageway unprotected by a footway, feeling safe within a 20mph zone when many drivers are still exceeding the limit can put them at greater risk. Construction of 3 sets of cushions should mitigate this encouraging greater compliance with the 20mph Zone.

### **3. Proposal**

Introduce speed cushions as shown in diagram 03PN284/12A, Appendix II.

### **4. Consultations**

Consultation was undertaken by way of public notices on site and in the Midweek Herald on 28 January. The objection period ended 18 February.

5 objections were received, 4 from residents and 1 from Ottery St Mary Town Council. These are summarised in Appendix I.

A further door to door survey was undertaken of residents on 8 July to gain the opinion of local residents to their preferred solution, including the following options.

- A) 2, 6m long flat top raised tables located near Higherfield and Copperhayes
- B) 3 pairs of speed cushions located near Higherfield and Copperhayes, and south west of the junction with Ashley Brake.

The following results were returned:

Properties Visited	31
Either Humps or Table Top	10
Prefer Table Top	8
Prefer Humps	1
Do not want either	2
Not at Home	10

### **5. Financial Considerations**

Local Transport Plan funding has been approved for the introduction of the speed cushions as an element of the footway construction scheme.

To introduce flat topped tables would incur further design and advertising costs.

## **6. Sustainability Considerations**

The proposals will have a positive impact by encouraging more people to walk and cycle. It will help reduce speeds of vehicles through the area and improve pedestrian facilities for people in the village on a key route to school.

## **7. Carbon Impact Considerations**

The proposals are expected to have a slight positive carbon impact.

## **8. Equality Considerations**

No new policies are being recommended in this report and therefore an Equality Impact and Needs Assessment is not considered necessary.

## **9. Legal Considerations**

Authority was granted to advertise and, subject to no objections being received, to install speed cushions on the public highway as described in the report. Objections have been received and approval of Committee is therefore required before they can be installed.

## **10. Risk Management Considerations**

This proposal has been assessed and all necessary safeguards or action has been taken to safeguard the Council's position.

## **11. Options/Alternatives**

Consideration could be given to the introduction of 2, 6m long flat top raised tables located near Higherfield and Copperhayes. This would require advertising and public consultation.

Consideration should be given to reviewing the existing speed limit if traffic calming features are not introduced.

## **12. Reason for Recommendation**

The existing speed limit is not currently considered to be compliant with policy or Dft advice due to the lack of traffic calming features and the recorded speed of traffic. The safety audit for the construction of the new length of footway recommended the introduction of traffic calming features.

David Whitton  
Head of Highways, Capital Development and Waste

**Electoral Division: Ottery St Mary Rural**

Local Government Act 1972: List of Background Papers

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Background Paper	Date	File Ref.
Nil		

tv140715edh  
sc/cr/speed cushions west hill road west hill  
04 200715

Highways Act 1980 - Section 90A  
Speed Cushions – West Hill Road, West Hill, Ottery St Mary

Comment	Response
<b>First Respondent: Resident, Ashley Brake</b>	
Every vehicle will speed up when they leave each speed cushion which will increase noise and air pollution and affect pedestrians in West Hill Road.	Page 5 of Traffic Advisory Leaflet (TAL) 4/94 suggests that there is little variation in noise if the cushions are spaced to allow an average of 20mph speed along the route.
As residents they will become more aware of traffic noise and is an example of unintended consequences.	Page 5 of TAL 4/94 suggests that there is little variation in noise if the cushions are spaced to allow an average of 20mph speed along the route.
Lived in the village for over 26 years (and at current address for 13.5) and not aware of any accidents in the area.	No recorded collisions in past 5 years.
Was not directly consulted and only became aware of proposals by notice on-street.	Consultation process included in the HATOC report.
Traffic may be slowed but in doing so will generate more noise from brakes, vehicle engines, gear changes and damage suspension for vehicles driving over them. Increasing environmental harm to road users.	Page 5 of TAL 4/94 suggests that there is little variation in noise if the cushions are spaced to allow an average of 20mph speed along the route.
Cyclists would find the cushions a hazard in the dark.	Cushions would be marked appropriately in line with relevant regulations and guidance.
Ambulance and mini bus journey would be more uncomfortable (65% of the village is retired).	The scheme has been designed based on guidance from TAL 4/94 and 1/98, which considered the advice of the emergency services.
Where such schemes have been progressed elsewhere, the condition of the road surface around the cushions has deteriorated requiring ongoing repairs.	Road condition will continue to be monitored by the DCC Safety Inspection Policy.
<b>Second Respondent: Resident, West Hill Road</b>	
Would like additional speed bumps lower down West Hill Road opposite Toad Pit Lane: <ul style="list-style-type: none"> <li>• It is a blind corner and tractors regularly exceed 40mph (it is a 20mph limit).</li> <li>• Bus stops on both sides of the road. High chance of speeding cars meeting a stationary bus.</li> <li>• There are large heavy vehicles speeding along the road which require long braking distances.</li> <li>• School buses pick up &amp; drop off children from the junction and speeding vehicles present a danger to these children. So the 20mph needs to be enforced.</li> <li>• There will be a new driveway onto West Hill Road creating a further hazard to speeding cars.</li> </ul>	Comments noted.
Fulfilled public duty to raise this risk with the council and hopes that additional speed bumps are needed.	Comments noted.

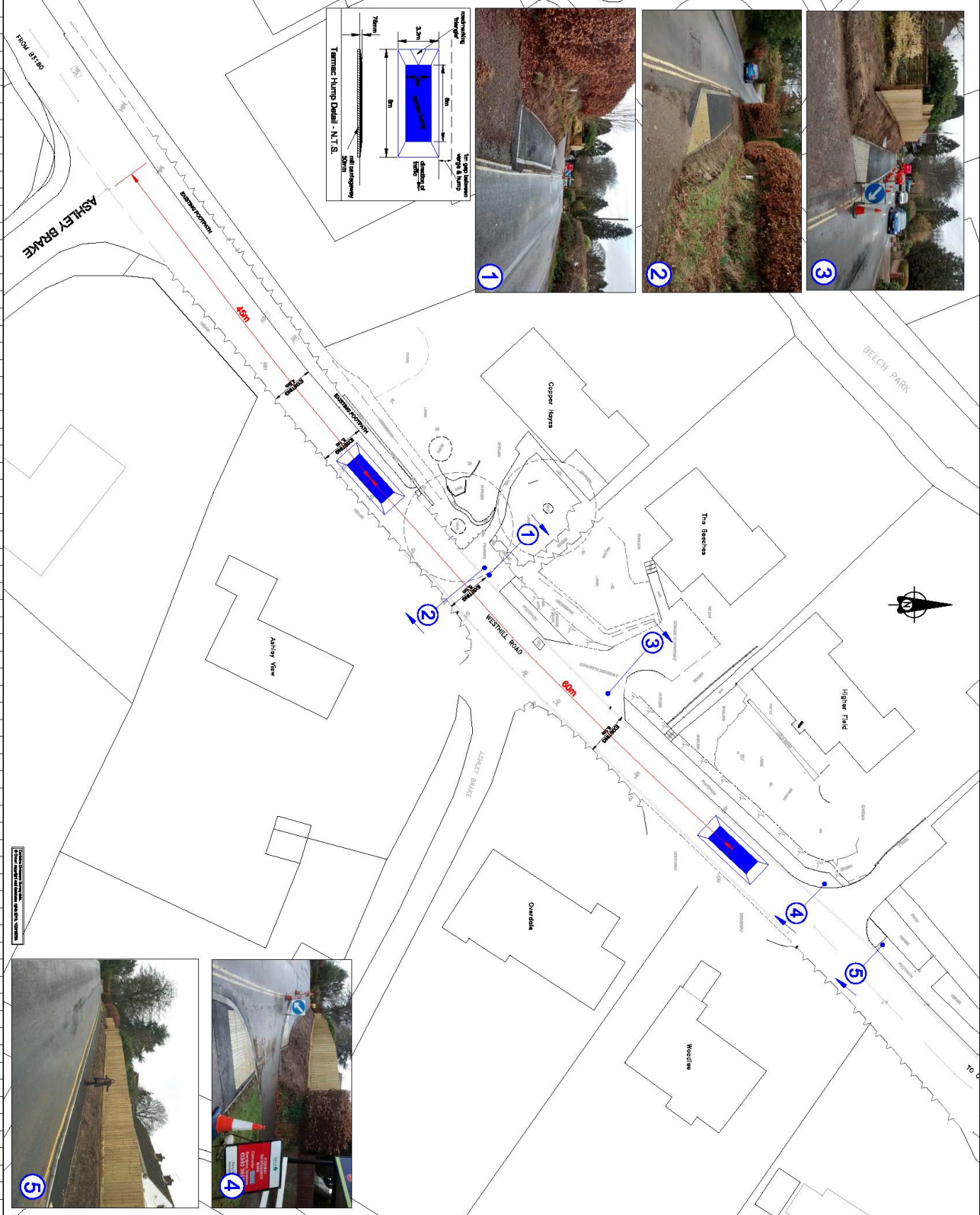
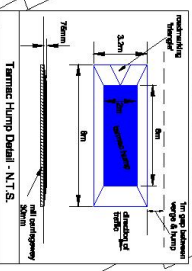
<b>Third Respondent: Resident, Ashley Brake</b>	
Resident in Ashely Brake for almost 30 years and have no knowledge of accidents in West Hill Road.	There have been no recorded collisions in the past 5 years.
Notice of road closure implies that implementation of humps has already been agreed.	Road closure in place to undertake construction of the footway extension.
There has been a speed limit on West Hill Road for some time and speed cushions will not slow the 'wide-track' heavy commercial vehicles or motorcycles. These types of traffic regularly use the road as a shortcut into Ottery St Mary. Suggest a weight restriction.	The scheme has been designed based on guidance from TAL 4/94 and 1/98, which considered the advice of the emergency services.
What traffic may be slowed by speed cushions will create a greater level of noise?	Page 5 of TAL 4/94 suggests that there is little variation in noise if the cushions are spaced to allow an average of 20mph speed along the route.
What traffic may be slowed will both create and spread greater pollution.	A safer route to the school for pedestrians and cyclists could potentially have a positive environmental impact.
No consultation with local residents.	
Concerned that new footpath, that forces pedestrians to leave the pavement to negotiate the beech tree, will not improve safety for pedestrians, particularly children.	Noted.
Suggests removing the tree or turn the path through the hedge into the village hall car park to take school children directly to school and onto the store/post office.	Will not resolve the issue of vehicle speed in the 20mph zone.
<b>Fourth Respondent: Ottery St Mary Town Council</b>	
Fully support the construction of the new footway.	Noted.
This will reduce the width of the road and, with appropriate road markings and signage, should slow traffic down. The use of speed cushions in this location will seem completely superfluous.	This was not the advice of the safety audit.
Strenuously oppose the proposed speed cushions or any form of obstruction to the highway.	Noted.
<p>After some internet research it would seem that speed cushions are losing favour with many authorities in many countries for the following reasons:</p> <ul style="list-style-type: none"> <li>• Cost (installation and ongoing maintenance)</li> <li>• Little evidence of effectiveness</li> <li>• Evidence shows no accident reduction</li> </ul> <ul style="list-style-type: none"> <li>• Dangerous to cycles and motorcycles due to sloped sides.</li> </ul> <ul style="list-style-type: none"> <li>• Invisible when covered with snow</li> </ul>	<p>Funded through LTP scheme</p> <p>Studies have shown that changes in speed are related to changes in accidents, with a1 mph reduction in speed giving a 5% reduction in accidents</p> <p>The DfT considered designs for speed cushions should accommodate all road users safely. Trials were undertaken to determine design parameters of cushions that might be suitable for use on public roads. The results of these trials are documented in TRL Report PR 32 and have been considered in the design.</p> <p>Travel speed would be appropriate to conditions.</p>

<ul style="list-style-type: none"> <li>Increased exhaust noise, brake squealing and bangs from lorries.</li> <li>Traffic will use less suitable routes to avoid cushions</li> <li>Added pollution from accelerating vehicles and brake/tyre dust.</li> <li>Damage to tyres.</li> <li>Cushions require adequate lighting (although lighting is not mandatory in this case as 20mph zone).</li> <li>If measures are considered necessary, would prefer a rumble strip.</li> </ul>	<p>DfT Document TAL 4/94 states “the presence of a speed cushion can result in a substantial drop in traffic noise levels. The maximum vehicle noise for light vehicles can also be reduced, as a result of light vehicles slowing down at the cushion”. The cushions within the scheme are spaced so that constant traffic speeds, averaging 20mph or less, are encouraged along the route.</p> <p>A logical alternative would be the B3174 Exeter Road.</p> <p>Dft document TAL 4/96 suggests the considerable increase in NOx suggested by certain road hump experiments abroad is unlikely to occur. This is because the harsh acceleration and deceleration modelled in these experiments is not typical of the driving habits generally adopted. The spacing of cushions in this scheme is based on the best practice guidance.</p> <p>Designed in line with the advice in TAL 1/98 and 4/94 which takes such factors into account.</p> <p>Answered in statement.</p> <p>The noise impact on residents would be greater and the impact on vehicle speeds less effective.</p>
<p><b>Fifth Respondent: Resident, West Hill Road</b></p>	
<p>Property is in the vicinity of one set of the proposed cushions.</p>	
<p>Speed of traffic along West Hill Road is frequently in excess of the 30mph &amp; 20mph limits. Therefore supports attempts to reduce the speed of traffic through the village.</p>	<p>Noted.</p>
<p>Understands that some studies show speed cushions result in little change in noise levels, but convinced that the existence of cushions may increase traffic noise, in particular as traffic slows and accelerates over the cushions. Any additional noise would be intrusive and directly affect the properties.</p>	<p>Page 5 of TAL 4/94 suggests that there is little variation in noise if the cushions are spaced to allow an average of 20mph speed along the route.</p>
<p>Would strongly object to the cushions if they require to traffic to almost stop to proceed over them as this would have a significant effect on noise and emissions.</p>	<p>The cushions within the scheme are spaced so that constant traffic speeds, averaging 20mph or less, are encouraged along the route.</p>
<p>Trusts that the design (in particular the width) will prevent larger vehicles (4x4s, SUVs &amp; vans) placing wheels either side of the cushion, thus negating the need to slow down.</p>	<p>The design is based on allowing buses and emergency vehicles along this route and hence has been designed at 1.6m width, based on guidance from TAL 4/94 and 1/98.</p>
<p>As there is a footpath being built, this will make it safer and asks if this has been considered with regard to the proposed cushions.</p>	<p>The safety audit recommended the introduction of traffic calming as unfortunately the required land could not be obtained to complete this section of footway.</p>
<p>Concerned that the excessive speed of traffic approaching the supermarket will be unaffected by this proposal.</p>	<p>This scheme is targeted at the section of West Hill Road within the 20 mph zone.</p>
<p>Concerned that traffic control measures such as speed cushions try to balance competing objectives and their effectiveness may be compromised.</p>	<p>Noted.</p>

Suggests a village wide approach to speed control that might be more effective than physical measures in a residential area.	This scheme is targeted at the section of West Hill Road within the 20 mph zone.
Council needs to consider current and future volumes of traffic through the village.	Noted.
The volume of traffic must affect the number of speeding incidents. It is clear that West Hill Road is used by motorists and commercial vehicles using it as a short cut to Ottery St Mary and has increase significantly in the last 20 years.	The introduction of traffic calming may make this a less attractive short cut option.
Traffic is likely to substantially increase with developments in West Hill and Ottery St Mary.	Noted.
West Hill Road is narrow with poor visibility at points and little footpath. The road is not suitable for the amount and speed of traffic currently using it, let alone any increase.	This scheme will not increase traffic volume.
In summary believes that road safety issues arise from speed and volume of traffic in West Hill and that interventions should be considered on a village wide basis.	Noted.







REV	DATE	BY	DESCRIPTION

NOTE:  
To avoid the need for drainage and to allow space for cyclists, there is approximately a 1m gap between the edge of the hump and the edge of the carriageway.

Do not scale from this drawing. It will not be used for construction. No responsibility is accepted for the design of any structure or installation. The design is for information only. It is not to be used for any other purpose without the written consent of the design team.

Scale: 1:200 @ A1 Date: JULY 2015

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WEST HILL ROAD FOOTWAY

DRAWING TITLE  
PROPOSED SPEED HUMPS

Drawing number: 03/11/234/14