

## **Request for Controlled Pedestrian Crossing, A386 Horrabridge**

Report of the Head of Highways and Traffic Management

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

**Recommendation:** It is recommended that this Committee confirms:

- (a) that the pedestrian movements across the A386 in Horrabridge do not justify the installation of a Controlled Pedestrian Crossing;**
- (b) that the existing central refuge close to Graybridge Road is considered to be the most appropriate measure to aid crossing movements at this location; and**
- (c) that it is not appropriate to install other facilities in the crossing location at Old Station Road.**

### **1. Summary**

This report summarises the observed traffic flows on the A386 and references these to assessments of criteria relating to the provision of crossing facilities for pedestrians.

### **2. Background/Introduction**

Horrabridge Parish Council has been concerned for the safety of pedestrians crossing the A386 in the 30mph speed limit area between Old Station Road and the current northern speed limit boundary.

Whilst there have been no reported accidents involving pedestrians in the last 10 years, the Parish Council remains concerned regarding the vulnerability of pedestrians, particularly school children and the elderly.

Members resolved at the meeting of 22 November that surveys of vehicular traffic and pedestrians should be undertaken. A count of pedestrian traffic was undertaken by volunteers representing Horrabridge Parish Council on 14 January 2013. A week long survey of road traffic undertaken at approximately the same time unfortunately failed to produce full information. The information that was captured indicated that road traffic was similar in volume to that recorded in 2007. Recorded data from 2007 was used as the basis for vehicular information.

### **3. Proposal**

That the County Council should not introduce a controlled pedestrian crossing of the A386 in Horrabridge and that calculations relating pedestrian numbers and vehicle flows on the A386 should be noted and reported to Horrabridge Parish Council.

### **4. Technical Data**

The pedestrian count was taken so that pedestrians crossing in various locations could be recorded separately. The count zones are shown on the plan attached to this report. The existing pedestrian refuge islands are located in Zone C.

Calculations of the pedestrian movements multiplied by the square of vehicular ( $pV^2$ ) movements were undertaken on an hourly basis. Pedestrian and vehicular raw data were each factored by 1.25 to represent the composition of child/elderly/infirm pedestrians and the presence of HGV/bus/LGV traffic as well as cars. The average of the highest four hourly  $pV^2$  calculations was then taken.

The calculations are attached to this report as Appendix II.

## **5. Financial Considerations**

There should be no financial cost to the County Council.

## **6. Sustainability Considerations**

There are no known sustainability issues for the Highway Authority associated with the recommendation.

## **7. Carbon Impact Considerations**

This proposal will have no impact on Carbon emissions.

## **8. Equality Considerations**

There are no known equality issues associated with this proposed extinguishment.

## **9. Legal Considerations**

There are no known implications at this time.

## **10. Risk Management Considerations**

Road Safety statistics show that an uncontrolled crossing with a central refuge has the least likelihood of there being a vehicle/pedestrian accident. Uncontrolled crossings also are statistically less likely to have accidents than controlled crossings. Signal Controlled Crossings (Pelicans or Puffins or Toucans) are statistically more likely to have vehicle/pedestrian accidents than Zebra Crossings.

Although this seems to be counter intuitive, the rationale is that the pedestrian takes much more care when required to “negotiate” the vehicular traffic than when they have the comfort of a controlled crossing. Equally the Zebra Crossing requires some negotiation with the traffic whilst a signal controlled crossing may be perceived as safe because the traffic is controlled by the signals.

## **11. Public Health Impact**

There should be no impact of the proposals on public health in the area.

## **12 Discussion**

The calculation of pedestrian and vehicle numbers referred to as  $pV^2$  was a well established ratio by which the need for various types of pedestrian facility could be assessed. Although this is not now an absolute criteria, it is still a valuable comparator.

Other Highway Authorities still use the  $pV^2$  value as a yardstick such that a central refuge would be provided if the average is above  $0.4 \times 10^8$ . To justify a Zebra Crossing, the average

$pV^2$  should exceed  $0.6 \times 10^8$  and a signal controlled crossing would be appropriate if the average  $pV^2$  value exceeded  $0.9 \times 10^8$ .

The highest average  $pV^2$  values occur in Zone C ( $0.27 \times 10^8$ ) and Zone E ( $0.33 \times 10^8$ ). In neither location would the criteria above recommend the introduction of any form of pedestrian crossing facility. Nevertheless, in Zone C there is an existing central refuge. In Zone E, where most of the crossing takes place between the two parts of Old Station Road, the road width is not sufficient to accommodate a central refuge.

### **13. Options/Alternatives**

Evaluation of pedestrian/traffic flows was undertaken to assess the need for pedestrian crossing facilities and the type of crossing facility that might be appropriate. There is a need for people to cross the road and no option to make this impossible at certain locations has been assessed.

### **14. Reason for Recommendation**

Analysis of the computed data shows that the best crossing facility for this location is a pedestrian refuge traffic island. This exists in Zone C where the majority of pedestrians crossed during the day. It is considered that there is no requirement to provide any other pedestrian crossing facility.

Lester Willmington  
Head of Highways and Traffic Management

### **Electoral Division: Yelverton Rural**

#### Local Government Act 1972: List of Background Papers

Contact for enquiries: John Halliday

Room No. Ryefields, Kingsteignton

Tel No: (01392) 380193

Background Paper	Date	File Reference
1. HATOC Committee	Nov 2012	Minute *42

jh080313wdh  
sc/cr/controlled crossing A386 Horrabridge  
02 hq 190313

Appendix I  
To HTM/13/36



## Appendix II To HTM/13/36

Time	Act Ped Zone A	Act Ped Zone B	Act Ped Zone C	Act Ped Zone D	Act Ped Zone E	Total Veh	Calc Ped Zone A	Calc Ped Zone B	Calc Ped Zone C	Calc Ped Zone D	Calc Ped Zone E	Calc Veh
7.00 - 8.00	0	0	5	0	3	702	0	0	6	0	3	877
8.00 - 9.00	0	0	9	1	13	964	0	0	11	1	16	1205
9.00 - 10.00	0	0	8	1	6	771	0	0	10	1	7	963
10.00 - 11.00	0	3	2	0	7	881	0	3	2	0	8	1101
11.00 - 12.00	0	0	1	2	5	915	0	0	1	2	6	1143
12.00 - 13.00	0	2	9	1	3	936	0	2	11	1	3	1170
13.00 - 14.00	0	1	7	4	1	930	0	1	8	5	1	1162
14.00 - 15.00	1	1	10	7	6	929	1	1	12	8	7	1161
15.00 - 16.00	3	0	12	0	15	1016	3	0	15	0	18	1270
16.00 - 17.00	0	0	20	0	24	1114	0	0	25	0	30	1392
17.00 - 18.00	0	0	8	0	15	1115	0	0	10	0	18	1393
18.00 - 19.00	0	0	10	0	7	818	0	0	12	0	8	1022

	Zone A pV^2	Zone B pV^2	Zone C pV^2	Zone D pV^2	Zone E pV^2
7.00 - 8.00	0	0	0.04614774	0	0.02307387
8.00 - 9.00	0	0	0.15972275	0.01452025	0.232324
9.00 - 10.00	0	0	0.0927369	0.00927369	0.06491583
10.00 - 11.00	0	0.03636603	0.02424402	0	0.09697608
11.00 - 12.00	0	0	0.01306449	0.02612898	0.07838694
12.00 - 13.00	0	0.027378	0.150579	0.013689	0.041067
13.00 - 14.00	0	0.01350244	0.10801952	0.0675122	0.01350244
14.00 - 15.00	0.01347921	0.01347921	0.16175052	0.10783368	0.09435447
15.00 - 16.00	0.048387	0	0.241935	0	0.290322
16.00 - 17.00	0	0	0.484416	0	0.5812992
17.00 - 18.00	0	0	0.1940449	0	0.34928082
18.00 - 19.00	0	0	0.12533808	0	0.08355872
<b>Average*</b>	<b>Average*</b>	<b>Average*</b>	<b>Average*</b>	<b>Average*</b>	<b>Average*</b>
0.030933105	0.02268142	0.270536605	0.053790965	0.329469525	

**Notes**

Cal Ped = 1.25 x actual number based on assessment. Child<16 =1.25; adult =1; elderly =2; disabled =3

Calc Veh = 1.25 x actual number based on assessment. Car/M/cycle/cycle =1; LGV/bus =2; HGV = 2.5

pV^2 calculations shown as fraction of 100,000,000

Average pV^2 based on average of 4 highest results (or fewer if appropriate)

## Appendix III To HTM/13/36

### Speed Bins Report \_TEMPRADAR 00000006279: 2007-03-26 to 2007-04-08

Site Name 6279  
 Site ID 00000006279  
 Grid 25104569682  
 Description Horrabridge....A386, near Graybridge Road junc Radar

Setup 30mphSthNth  
 Channel All directions  
 Show daily Average  
 Time Period 1 hour  
 Speed units mph  
 Exclude data: None

	Average Flow	<15 mph	15-20 mph	20-25 mph	25-30 mph	30-35 mph	35-40 mph	40-45 mph	45-50 mph	50-55 mph	55-60 mph	60-65 mph	65-70 mph	>70 mph	85 <sup>th</sup> %ile	Mean Speed	Std Dev
00:00	57	0	0	3	14	18	14	4	2	1	0	0	0	0	39.7	33.6	6.5
01:00	28	0	0	1	4	8	6	5	3	0	0	0	0	0	44.3	36.3	7.6
02:00	26	0	0	1	3	8	7	4	2	0	0	0	0	0	43.2	36	6.6
03:00	15	0	0	0	3	3	5	3	1	0	0	0	0	0	42.1	35.4	6.1
04:00	25	0	0	1	4	6	6	4	2	2	0	0	0	0	44.9	36.7	7.9
05:00	68	0	0	5	18	20	15	8	1	1	0	0	0	0	40	33.3	6.5
06:00	221	0	0	24	55	75	44	17	5	1	0	0	0	0	38.9	32.4	6.3
07:00	702	13	27	89	220	215	105	28	5	1	0	0	0	0	36.6	29.9	6.6
08:00	964	18	37	138	330	306	110	21	3	1	0	0	0	0	34.8	29	6.2
09:00	771	13	30	128	264	231	85	16	3	0	0	0	0	0	34.8	29	6.2
10:00	881	30	50	171	303	243	73	10	1	0	0	0	0	0	34	27.7	6.5
11:00	915	20	42	152	327	275	85	11	2	0	0	0	0	0	34.3	28.5	6.1
12:00	936	8	26	149	345	295	92	18	2	1	0	0	0	0	34.5	29.2	5.6
13:00	930	30	44	149	322	285	85	12	2	1	0	0	0	0	34.3	28.3	6.5
14:00	929	34	47	142	328	270	87	16	2	1	0	0	0	0	34.4	28.2	6.8
15:00	1016	21	38	158	344	318	115	17	4	1	0	0	0	0	34.7	29	6.2
16:00	1114	18	39	162	391	367	117	16	2	1	0	0	0	0	34.6	29.1	5.9
17:00	1115	18	37	136	353	390	151	26	2	1	0	0	0	0	35.4	29.8	6.1
18:00	818	1	11	80	253	294	142	27	7	1	0	0	0	0	36.9	31.1	5.5
19:00	520	4	9	57	160	172	86	26	6	1	1	0	0	0	37.4	31	6.2
20:00	337	0	3	45	112	109	52	11	3	1	0	0	0	0	36.7	30.7	5.7
21:00	257	0	3	41	80	73	41	12	5	1	0	0	0	0	37.5	30.8	6.3
22:00	218	1	2	27	66	68	36	13	4	1	0	0	0	0	37.8	31.2	6.2
23:00	126	0	1	14	37	38	24	7	3	1	0	0	0	0	38.6	32	6.4
07-19	11091	224	428	1654	3780	3489	1247	218	35	9	0	0	0	0	34.8	29	6.3
06-22	12426	228	443	1821	4187	3918	1470	284	54	13	1	0	0	0	35	29.2	6.3
06-24	12770	229	446	1862	4290	4024	1530	304	61	15	1	0	0	0	35	29.3	6.3
00-24	12989	229	446	1873	4336	4087	1583	332	72	19	1	0	0	0	35.2	29.4	6.3
am Peak	08:00	10:00	10:00	10:00	08:00	08:00	08:00	07:00	06:00	04:00					04:00	04:00	04:00
Peak Volume	964	30	50	171	330	306	110	28	5	2					45	36.7	7.9
pm Peak	17:00	14:00	14:00	16:00	16:00	17:00	17:00	18:00	18:00	12:00	19:00				23:00	23:00	14:00
Peak Volume	1115	34	47	162	391	390	151	27	7	1	1				39	32	6.8

Event key:  Accident  Road Works  Special  Road Closed  Holiday  
 Weekends and defined holidays

Notes on data:

Start	End	Type	Lanes	Action	Description
06/04/2007 00:00	06/04/2007 23:59	Holiday	-	Included	Holiday
06/04/2007 00:00	09/04/2007 23:59	Holiday	-	Included	Easter Bank Holiday Weekend

Data prepared by Devon County Council February 25, 2013 2:31:21 PM.

**Appendix IV  
To HTM/13/36**

Horrabridge A386 Pedestrian Count Date Monday 14 January 2013

Start	Finish	Zone A	Zone B	Zone C	Zone D	Zone E
7.00	7.15			1		1
7.15	7.30			2		
7.30	7.45			1		2
7.45	8.00			1		
8.00	8.15			7	1	2
8.15	8.30			2		4
8.30	8.45					6
8.45	9.00					1
9.00	9.15			4		2
9.15	9.30			1		1
9.30	9.45			2	1	1
9.45	10.00			1		2
10.00	10.15		1			1
10.15	10.30					2
10.30	10.45			1		3
10.45	11.00		2	1		1
11.00	11.15			1		2
11.15	11.30					2
11.30	11.45					
11.45	12.00				2	1
12.00	12.15			2		
12.15	12.30			3	1	
12.30	12.45			4		3
12.45	13.00		2			

Start	Finish	Zone A	Zone B	Zone C	Zone D	Zone E
13.00	13.15		1	3		1
13.15	13.30			1	1	
13.30	13.45			2	2	
13.45	14.00			1	1	
14.00	14.15			3	3	1
14.15	14.30			5	2	3
14.30	14.45		1	2	2	1
14.45	15.00	1				1
15.00	15.15	1				4
15.15	15.30	2		2		3
15.30	15.45			5		
15.45	16.00			5		8
16.00	16.15					2
16.15	16.30			14		10
16.30	16.45			6		5
16.45	17.00					7
17.00	17.15			4		7
17.15	17.30			2		5
17.30	17.45			1		1
17.45	18.00			1		2
18.00	18.15			5		1
18.15	18.30			3		2
18.30	18.45			1		2
18.45	19.00			1		2