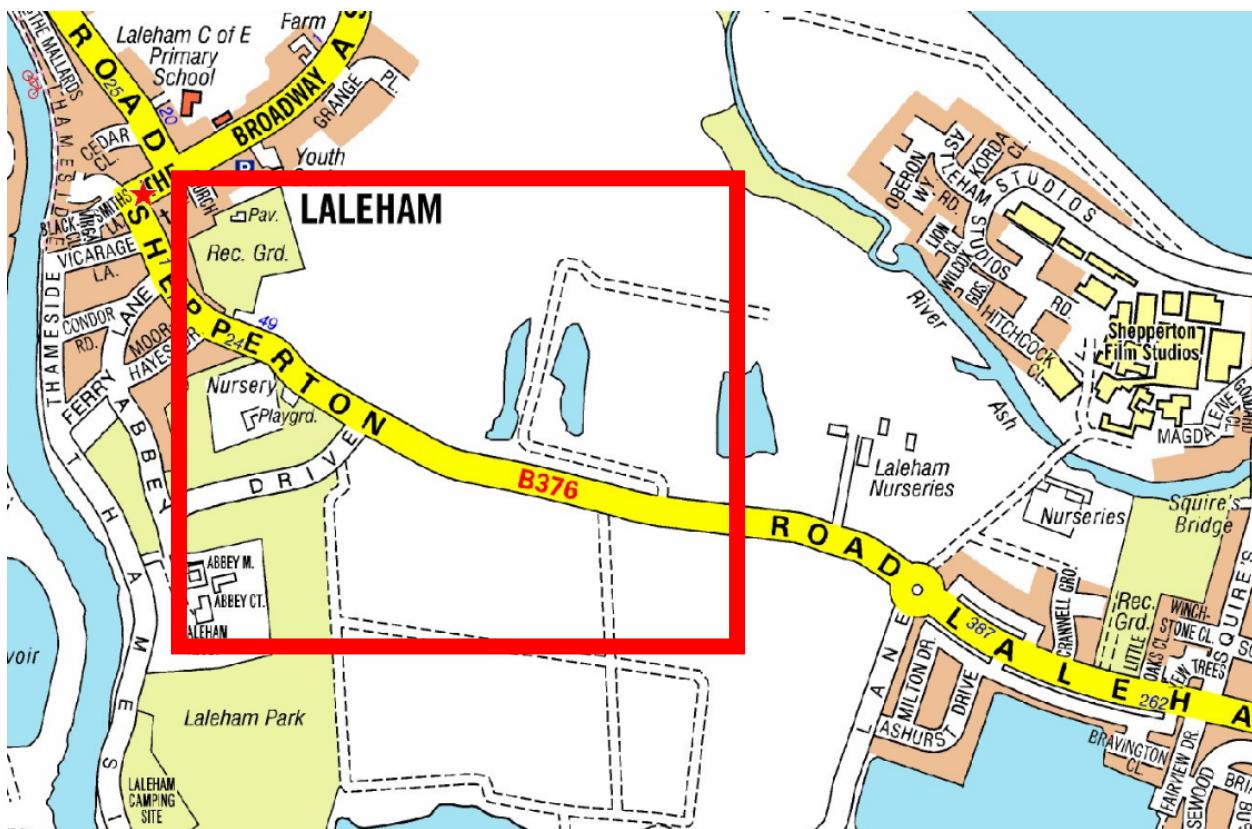


# Laleham Village

## Pedestrian Crossing and Safety Improvements

**Feasibility Report**  
**February 2019**



Project Title: Laleham Village (B376 Shepperton Road)  
Pedestrian Crossing and Safety  
Improvements

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## **1. INTRODUCTION:**

Surrey County Council received a petition in 2016 regarding concerns raised about vehicle speed and safety in the Laleham Village area. In particular, speeds around the playpark on Shepperton Road. A feasibility report was conducted in March 2017 to look at ways in which vehicle speed and traffic could be managed throughout the village. The outcome of this report led to the reduction of the speed limit from 50mph to 40mph at the south-eastern end of Shepperton Road, along with the installation of 50m of high friction surfacing at the junction with Abbey Drive. However, since this feasibility study, further safety concerns have been raised regarding the lack of pedestrian facilities and accessibility along Shepperton Road, especially to the south-east of the village near the playpark. At present, there are no existing official crossing facilities, which therefore limits the safe accessibility to facilities such as the playpark and bus stops in this location.

The Joint Committee for Spelthorne agreed to a feasibility study to investigate the concerns and identify potential options for a new pedestrian crossing facility and ways to reduce speeds and improve driver behaviour.

## **2. SITE ANALYSIS:**

Shepperton Road is a 'B' Class road that has been classified as a Main Distributor within the Surrey Priority Network (SPN 2). It forms part of the link between Laleham and the A308 to the north and Laleham, Shepperton and Chertsey to the south. Shepperton Road also links Shepperton and Chertsey to Staines upon Thames to the north-west. The existing road layout is shown in Drawing PC0939\_00.

Shepperton Road is a road that changes character along its entire length, but has a system of street lighting that runs throughout. To the north-west, which is in the centre of the village, the road is fronted by a combination of properties and businesses.



*Figure 01: North-western end of Shepperton Road*

There are footways on both sides of Shepperton Road, between Laleham Village and the playpark. The nearest crossing facility is a pedestrian refuge near to the junction with Vicarage Lane. This crossing facility is likely to serve pedestrians to the west of

this location, who would need to cross the junction with Ferry Lane which also has a pedestrian refuge to continue towards the playpark. Pedestrians to the east of Vicarage Lane are unlikely to travel the additional distance to the crossing point of Shepperton Road. To the east of the refuge crossing near Vicarage Lane there are approximately 15 properties on the opposite side of the road to the playpark.

Progressing south-east down Shepperton Road, the character changes and the area becomes more rural in feel where there is a playpark set a short distance back from the carriageway. There are currently no pedestrian crossing features to the south-east of Laleham Village near to Abbey Drive which is limiting pedestrian accessibility to the playpark.



*Figure 02: South-eastern end of Shepperton Road, by the playpark*

The road is subject to a 30mph speed limit between its northern extent and a point approximately 90m south-east of the playpark parking area. At this point, the speed increases to 40mph and remains so until it changes to 30mph just to the west of the roundabout junction with Laleham Road and Littleton Lane.

There are both north-westbound and south-eastbound bus stops along Shepperton Road, located by All Saint's Church and also in the immediate vicinity of the junction with Abbey Drive, however access to this bus stop is limited. The bus stops serve routes No. 458 (Monday to Saturday) and No. 574 (Tuesdays and Thursdays).



*Figure 03: South-eastern Bus Stop Location*

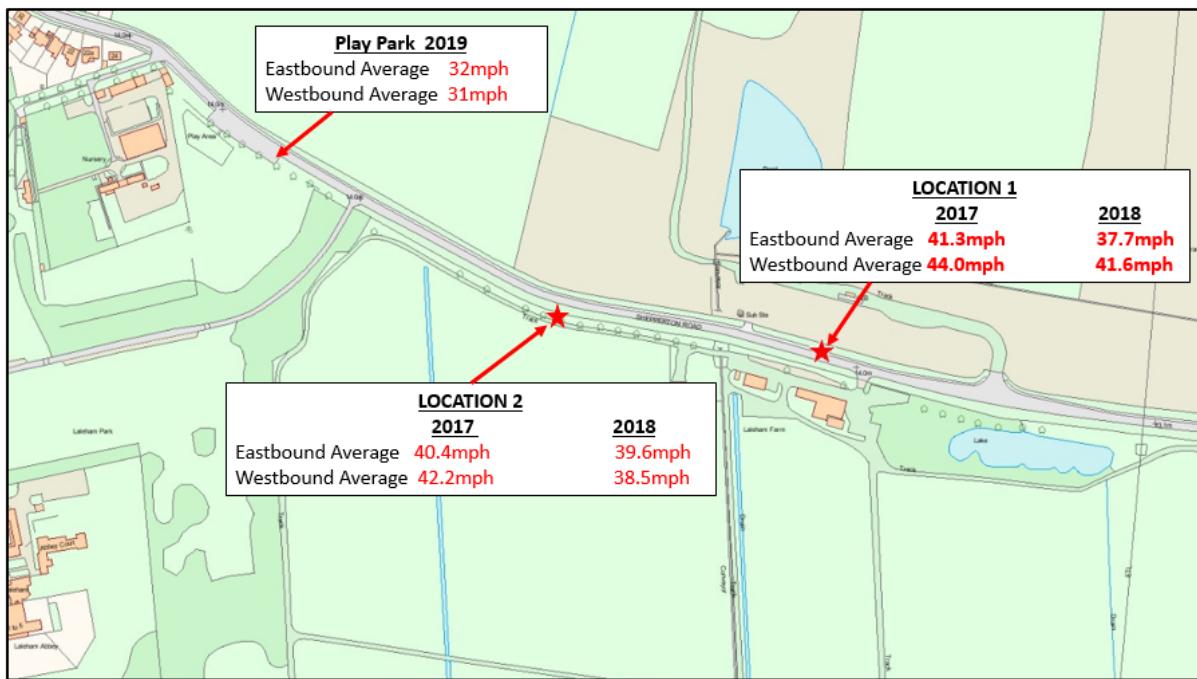
### **3. DATA COLLECTION:**

#### **3.1 Speed Data**

A survey was undertaken of the vehicle speeds along Shepperton Road in the previous 2017 Feasibility Study. As a result from this study the speed limit was reduced from 50mph to 40mph on the south-eastern length of Shepperton Road. A 'post survey' on the vehicle speeds was conducted in 2018 to determine if the change had been successful. The results showed that the average speed in both directions had gone down.

As one of the options proposed in this study, is a zebra crossing, a survey was undertaken of the vehicle speeds in the vicinity of the proposed crossing location. Speeds were measured in both directions and observations from site were that on occasions, vehicles appeared to start speeding up once they had negotiated the bend travelling away from the village. In the opposite direction there were some occasions where speeds were reduced by vehicles maneuvering in and out of the parking area near the play area.

The map below shows the results from the 2017, 2018 and 2019 speed surveys. As can be seen, the measures taken in 2017 was successful in lowering the average speeds along Shepperton Road. The most recent survey indicates that there is generally a good compliance with the 30mph speed limit.



*Figure 04: Map detailing speed survey results*

#### **3.2 Personal Injury Collisions**

An assessment has been made of the personal injury collisions, as recorded by Surrey Police, along Shepperton Road over the last 3 years, giving the period

between 1<sup>st</sup> January 2016 and 30th November 2018. The Police and Surrey County Council do not collect or hold 'damage only' collision data, and therefore we are unable to report or comment on these. During this period there were nine recorded personal injury collisions six had a severity of 'slight' and three 'serious'.

<b>Latest 4 year and year to date collisions (01/01/16 to 30/11/18)</b>			
<b>Year</b>	<b>Slight</b>	<b>Serious</b>	<b>Fatal</b>
2016	4	1	0
2017	2	1	0
2018 (Jan – Nov)	0	1	0
<b>Total</b>	<b>6</b>	<b>3</b>	<b>0</b>

*Figure 05: Personal Injury Collision Data*

When the police attend personal injury collisions they assess and log the contributory factors that lead to the collision. The table below shows all the factors that led to a collision that have been recorded along Shepperton Road during this assessment period. Some collisions have a number of factors attributed to them.

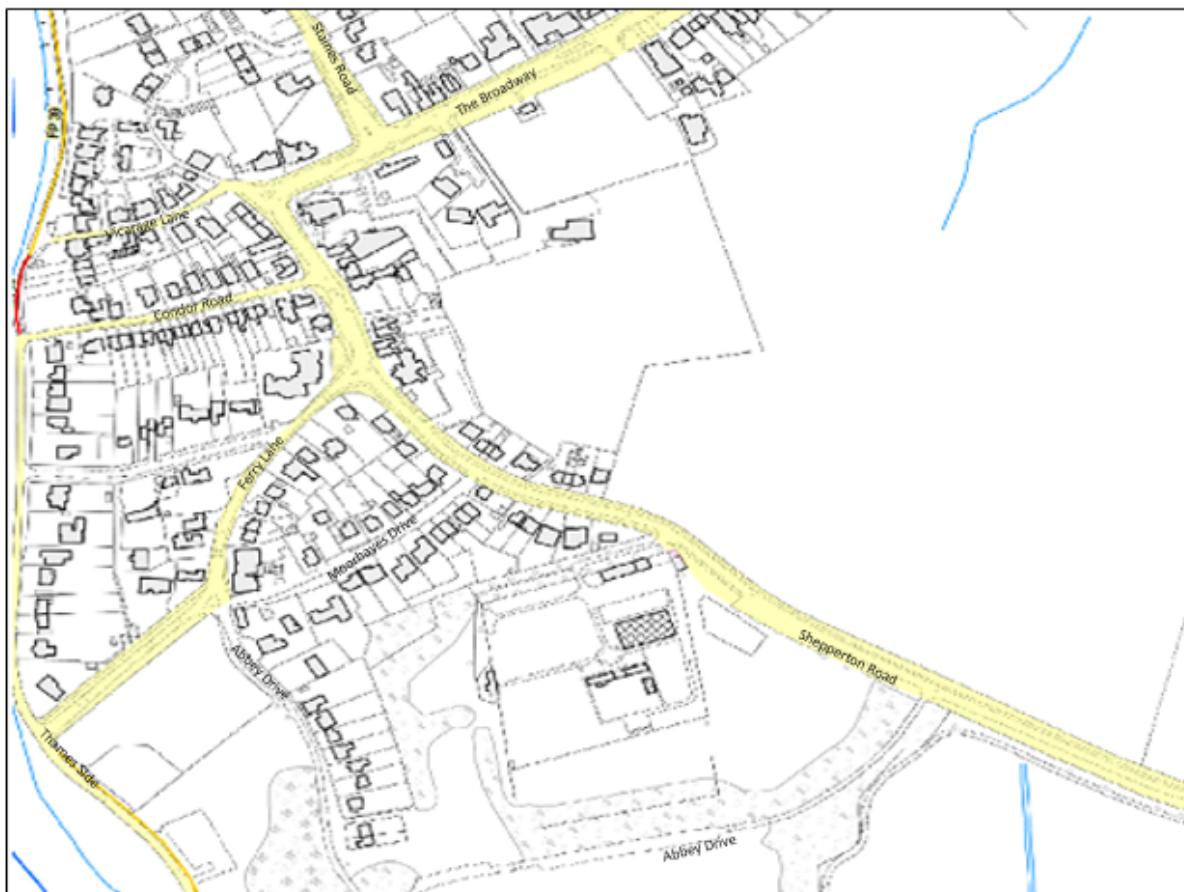
<b>Collision contributory factors (01/01/16 to (30/11/18)</b>	
<b>Factor</b>	<b>Number</b>
Vehicle door opened or closed negligently	1
Impaired by drugs (illicit or medical)	1
Impaired by alcohol	1
Vehicle door opened or closed negligently	1
Poor turn or maneuver	1
Swerved	1
Failed to look properly	2
Failed to judge other persons path or speed	1
Travelling too fast for conditions	3
Distraction in vehicle	1

*Figure 06: Personal Injury Collision Contributory Factors*

As can be seen from the above table, there are many contributing factors to the collisions recorded along Shepperton Road. 'Travelling too fast for conditions' was recorded as a contributory factor in three of the recorded collisions. This indicates that speed isn't necessarily the primary cause of injury collisions in this area. Therefore the main focus of this feasibility report has been to consider the feasible options to improve pedestrian facilities and accessibility.

### 3.3 Highways Extents

The Highway Extents at Shepperton Road and surrounding roads were obtained to understand what areas could be improved without having to acquire land.



*Figure 07: Highways Extent Map*

The majority of options discussed in this report fall within the Highway boundary and so within Surrey County Council's control. Where this is not the case it is specifically mentioned in the appropriate discussion section.

### 3.4 Road Safety Audit

The options produced and discussed within this report are commonplace on the public highway but it should be noted that if any of the options are promoted for construction they will be subject to independent Road Safety Audits throughout the design process and following implementation. Road Safety Audits may recommend changes or additional works.

#### **4. DISCUSSION AND OPTIONS:**

##### **4.1 Option 1 – Dropped Kerbs** – Refer to drawing PC0939\_01

The installation of 2m wide drop kerbs with tactile paving at two separate locations along Shepperton Road would improve the route for pedestrians wishing to access the playpark and Laleham Village. In addition the tactile paving will enable pedestrians with buggies/wheelchairs to cross in a more controlled manner and provide the necessary provision for those with impaired or no vision.

The current pedestrian refuge island located in the centre of Laleham Village provides an accessible route for pedestrians to cross Shepperton Road. The location of dropped kerbs at Location A, near The Three Horseshoes, or Location B, near the park, would likely benefit residents to the east of the existing pedestrian refuge crossing.

In addition to the crossing points, this option includes the proposal of an area of new footway construction between the playpark and the proposed nearby tactile crossing facility (Location B) to improve pedestrian access to the park. However, as this land is not part of the public highway, further investigation would be required to progress this element of a scheme.

Although this option is fairly inexpensive compared to other options discussed, it provides only a minimal improvement on the existing arrangement. The crossing facilities proposed would only provide pedestrians with a guide as to where to cross the carriageway, and would still require the purchase / gaining of land to construct the footway link which is likely to involve additional costs.

Guide price £7,500

##### **4.2 Option 2 – Priority Give Way** – Refer to drawing PC0939\_02

A single lane chicane allows traffic in both directions, but there is only room for one vehicle to pass through at one time. Priority is then given to one direction of traffic so that the possibility of vehicle conflict is minimised.

In this proposal, priority would be given to vehicles heading south-east along Shepperton Road, away from the village center to avoid congestion building up in this area. The most suitable location for a priority give way feature in Laleham Village would be by the playpark, approximately 140m north-west of the junction with Abbey Drive, however this could then create congestion for vehicles entering the village and block access to the carpark at busy times.

This option could in general act as a traffic calming feature as vehicles in both directions are likely to slow down whilst approaching the feature. That said, it could introduce competitive driving amongst vehicles speeding up to get through the narrowing and therefore increase conflict in this location.

The proposed priority give way feature includes the installation of 2m wide drop kerbs to increase pedestrian accessibility in this location. As this is a build out feature, pedestrians would only be required to cross a single lane of traffic with improved

visibility of the oncoming traffic. It is recommended that a stage 1 Road Safety Audit is carried out before a decision is made if this option is feasible.

Guide price £16,000

#### **4.3 Option 3 – Pedestrian Refuge Island (2.0m wide) –**

Refer to drawing PC0939\_03

A new pedestrian refuge island located near to the playpark will allow pedestrians to cross Shepperton Road, one direction of vehicle traffic at a time. An added benefit of this measure is that the pedestrian refuge will narrow the road which may reduce the speed of vehicles. The new pedestrian refuge island has been shown 2.0 wide with a crossing width of 2.0m to allow sufficient space for two wheelchairs to pass and to provide adequate waiting space for pedestrians to cross the carriageway in two stages. An island width of less than 2.0m would not be considered for this location due to the road layout and meeting the needs of pedestrians likely to use it. The proposed island would be installed approximately 140m north-west of the junction with Abbey Drive. The position of the island is such due to the constraints with the parking area for the playpark and the sight lines due to the bend.

To allow for the construction of this pedestrian refuge island, carriageway widening on the north-westbound side of Shepperton Road would be required, along with the construction of a new 2.0m footpath on the existing grass area. This would require the relocation of an existing telegraph pole and lamp column which would increase the construction costs significantly.

The central pedestrian refuge island could create a traffic calming benefit as vehicles would need to slow down on the approaches to ensure they can maneuver through the narrower carriageway running lanes.

Central hatching road markings on both approaches to the central island will be required, along with the removal of the existing 'slow' marking. Temporary 'New Road Layout Ahead' signs will be required for a period of 3 months.

This option would reduce the depth of the existing parking area and therefore impact on maneuvering space but there would still be a buffer zone behind the parking bays that may still assist with parking.

Although this option would have far higher construction costs than previous options discussed, a pedestrian refuge island would significantly increase pedestrian accessibility to the playpark by allowing pedestrians to cross the carriageway in two stages.

Guide price £65,000

#### **4.4 Option 4 – Zebra Crossing – Refer to drawing PC0939\_04**

This option involves providing a zebra crossing facility approximately 140m north-west of the junction with Abbey Drive, along Shepperton Road. Zebra crossing facilities give pedestrians waiting to cross the road priority over oncoming vehicles as motorists are

obliged to give way to pedestrians, therefore this option also serves as a speed reducing feature to encourage vehicles to drive more carefully.

The visibility at the proposed location for the zebra crossing is sufficient in both directions. Visibility of approximately 55/60m can be achieved in the north-west, and 100m+ to the south-east. However, the visibility in this direction may be temporarily obstructed while buses are stationary at the bus stops.

This option requires widening a small area of footway on both sides of the carriageway to achieve 1.8m footway widths behind the proposed combined lighting column and zebrite belisha beacons, which would be located adjacent to the carriageway for maximum visibility. This option will also require the installation of 2.4m width red coloured tactile paving to the back of footway, along with dropped kerbs. Likewise, approximately 50m of high friction surfacing on each approach to the pedestrian crossing will be required, along with zebra crossing road markings, which would further increase the construction costs.

Zebra crossings are only permitted on roads where the speed limit is 30mph or less, and the measured mean speeds are at or below 35mph. The speed survey undertaken suggests that this site meets that criteria. A drawback of this option could be that pedestrian usage may be relatively low and drivers may become complacent and miss occasions when pedestrians are attempting to cross. This option would require a Road Safety Audit plus associated signing and Statutory Consultation if to be pursued.

Guide price £50,000

#### **4.5 Option 5 – Road Cushions – Refer to drawing PC0939\_05**

Traffic calming measures such as road cushions could be an effective option to lower the speed of vehicles travelling in both directions through Laleham Village

Road cushions are narrow rectangular humps that allow wide tracked vehicles such as buses and large emergency vehicles to straddle or partially straddle the road cushions, therefore minimising discomfort for passengers. Two wheeled vehicles are unlikely to be affected by road cushions, which is advantageous for cyclists but may mean that motorcyclists may not reduce their speed. An advantage of using road cushions over alternative tables / speed bumps is that a drainage solution is not usually required.

Noise and vibration levels may be a nuisance at locations adjacent to cushions, especially where larger commercial vehicles are likely to travel which may not fully straddle the cushions. Road cushions can also be unpopular with some residents due to discomfort, fear of damage to vehicles and perception of the increased noise and vibration. A traffic order would be required for this option, plus associated signing and statutory consultation.

Guide price £25,500

#### **4.6 Option 6 – Gateway and Bus Stop Improvements –** Refer to drawing PC0939\_06

This option looks at ways in which the south-eastern end of Shepperton Road can be improved to ensure drivers are able to recognise they are entering a village and thereby reduce their speeds accordingly and drive more carefully. An effective way to make vehicles aware of the speed limit in this area could be through the installation of a village gateway feature, incorporating yellow backed speed limit terminal signs and village name plates. Gateways are used as an indication to drivers as to where the road changes character, usually at the start of a traffic calming scheme or at the entry to a village. Adjacent to this, realigning the existing edge of carriage way road markings and installing a 30mph roundel, along with installing a strip of red coloured high friction surfacing could also be effective in reinforcing the view that drivers are entering a village. This proposal involves relocating the existing terminal signs approximately 20m south-east from their current location, which could also have the benefit of slowing vehicles down even further before they reach the junction with Abbey Drive and playpark. This would require a Traffic Order to be advertised.

The existing bus stop to the south east of the play park is currently located on the grass verge. There are no facilities for pedestrians to cross Shepperton Road to access this bus stop and passengers have to exit/enter the bus onto an uneven grass verge.

The proposed improvements include a new uncontrolled crossing point with dropped kerbs, tactile paving and creating an area of hard standing on the grass verge next to the bus stop. As well as improving accessibility these improvements will create a more pleasant environment for people using the bus stop. In addition the uncontrolled crossing will also serve residents of Abbey Drive wishing to cross Shepperton Road.

However, although this option involves de-cluttering the features at this location to make it clearer for vehicles to appreciate they are entering a village, it may not have the same effect at reducing vehicle speed as installing physical measures like those discussed in other options.

Guide price £25,000

#### **4.7 Option 7 – General Signing Improvements – Refer to drawing PC0939\_07**

Although there are already a number of warning and regulatory signs present along Shepperton Road, they do not currently highlight all of the bends which require vehicles to reduce their speeds in order to manoeuvre correctly. Therefore, the installation of bend warning signs within this option, as well as chevron signs to provide guidance around the bends would be beneficial. Vegetation clearance would also be required to increase the visibility of the existing chevron sign located south-east of Shepperton Road.

Improving the signs throughout Shepperton Road would be beneficial in highlighting the upcoming road layouts and may therefore have a positive effect on driver behaviour but it would be unlikely to have a noticeable effect on the speed of the vehicles.

Guide price £5,000

#### **4.8 Option 8 – Road Marking Improvements – Refer to drawing PC0939\_08**

When visiting site, it became obvious that many of the existing road markings along Shepperton Road were faded. There is a three year cyclical line refreshing programme, therefore, this option includes the proposal of refreshing a number of existing junction markings, along with central hatching and give way markings. Installing new ‘slow’ markings in both directions along Shepperton Road could also be beneficial in encouraging vehicles to drive with more care and attention as they approach the bends in this location.

Much like the general signing improvements discussed previously, whilst there may not be a noticeable impact on vehicle speeds, this option could help to highlight the existing road layout and therefore be beneficial to driver behaviour.

Guide price £9,500

#### **4.9 Option 9 – Parking Area Improvements – Refer to drawing PC0939\_09**

This option involves improving the current parking area located adjacent to the playpark at the south-eastern end of Shepperton Road. The area would benefit from being resurfaced over an area of approximately 58m x 9m, along with the installing approximately 19 parking bays and 2 disabled parking bays. Although this option would provide no real road safety benefits along Shepperton Road with regards to vehicle speeds, vehicle behaviour or pedestrian accessibility, it would improve the overall aesthetic appeal of this location and could be beneficial in helping vehicles recognise they are passing through a village and that they should adjust their driving style accordingly.

Guide price £40,000

#### **4.10 Option 10 – Do nothing**

It is noted that there are no pedestrian crossing facilities at all in this vicinity, and whilst the majority of pedestrians will find an opportunity to cross within a relatively short period of time, those people who are more vulnerable, or have disabilities may find crossing difficult.

Whilst doing nothing is an option, which in theory should not affect the current pedestrian personal injury collisions, it does not improve ease of crossing for pedestrians trying to safely access facilities at the south-eastern end of Shepperton Road. As the Highway Authority Surrey County Council actively seeks to provide improvements to the Highway network that could help to reduce personal injury collisions.

## **5. RECOMMENDATION:**

It is recommended that the following options (in priority order) are appropriate to be progressed, and likely to provide benefits for residents in Laleham:

### Improvements to pedestrian crossing facilities

- Option 3 – Pedestrian refuge island, to improve pedestrian crossing facilities and potentially reduce traffic speeds near to the playpark.
- Option 1 – Dropped kerbs, to improve pedestrian crossing facilities

### Other improvements

- Option 6 – Gateway and bus stop improvements; to improve pedestrian accessibility, increase driver awareness of potential presence of pedestrians and potentially reduce traffic speeds entering the village
- Options 7, 8 – General signing improvements; to increase driver awareness of potential hazards
- Option 9 – Parking area improvements; to improve facilities for visitors to the park

## **6. APPENDICES**

### **Drawings showing proposed options:**

PC0939\_00 – Existing Layout and Road Widths.

PC0939\_01 – Option 1 – Drop Kerbs.

PC0939\_02 – Option 2 – Priority Give Way.

PC0939\_03 – Option 3 – Pedestrian Refuge Island.

PC0939\_04 – Option 4 – Zebra Crossing.

PC0939\_05 – Option 5 – Road Cushions.

PC0939\_06 – Option 6 – Gateway and Bus Stop Improvements.

PC0939\_07 – Option 7 – General Signing Improvements.

PC0939\_08 – Option 8 – General Road Marking Improvements.

PC0939\_09 – Option 9 – Parking Area Improvements.

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