



# **Walton Bridge Road Pedestrian Crossing Facility**

**Feasibility Report**

**March 2020**

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Pedestrian crossing facility

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## 1. INTRODUCTION:

Following the opening of the new Walton Bridge in 2013, Surrey County Council agreed to undertake a study to examine the impact of the new bridge on traffic and travel patterns in the Walton to Halliford corridor. A key safety concern raised by members, as part of this study was the lack of pedestrian crossing facilities along Walton Bridge Road, Shepperton. This feasibility report will investigate this concern and the possible options.

## 2. SITE ANALYSIS:

This report will focus on the section of A244 Walton Bridge Road between Walton Bridge Garage and Marshall's Roundabout.

A244 Walton Bridge Road provides a strategically important route linking Walton on Thames to the south-east, with Shepperton to the north-west and Sunbury to the south-east. All these towns have excellent transport links with the M3 close by and the M25 only a couple of miles away.

A plan showing the local road network is shown in Fig. 1 below.

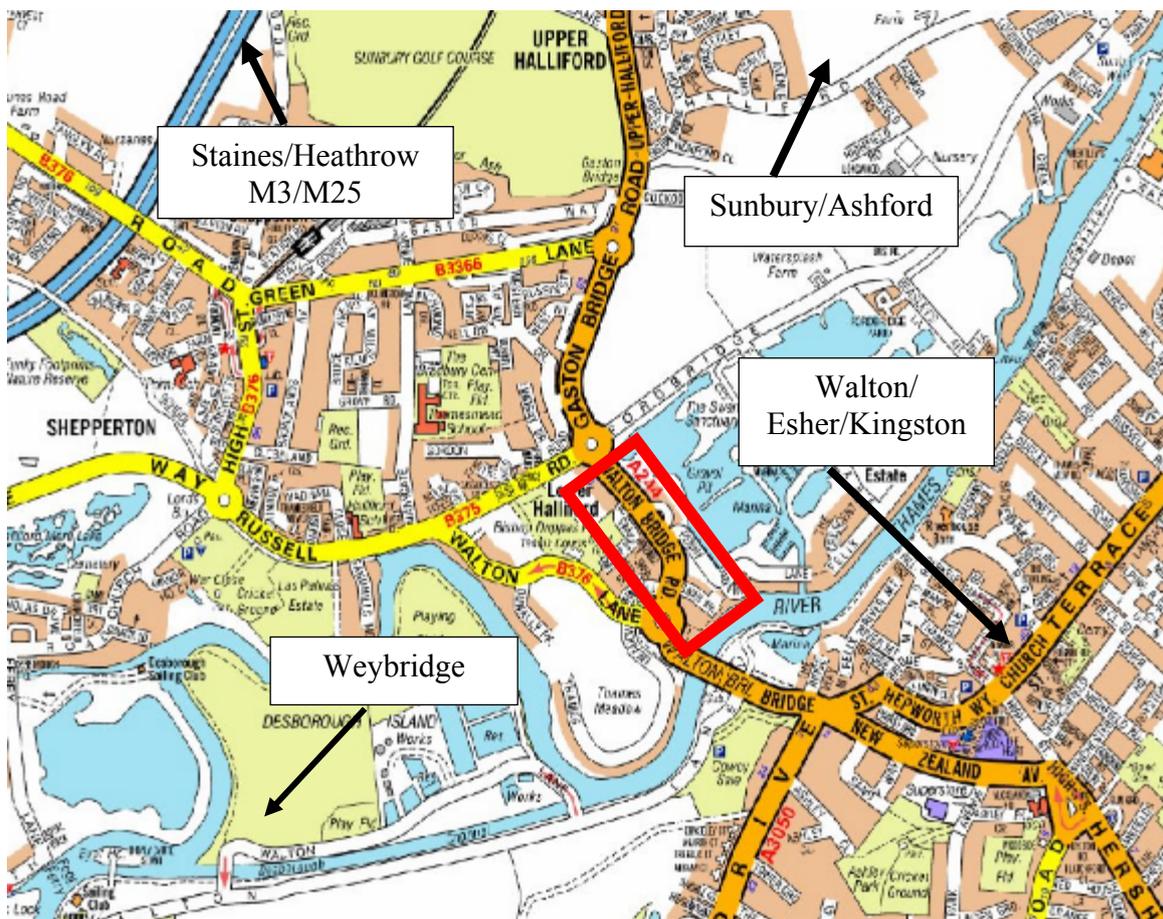


Fig 1 Local Network

□

Walton Bridge Road is a A class road which has been classified as a Primary Distributor road (SPN 1) and is subject to 30mph speed limit. This section of Walton Bridge Road is single carriageway, approximately 500m in length with a 9m wide carriageway. Residential properties are present on both sides of the road, with the majority being on the west side of the road.

Marked parking places are present on the west side of the road outside Windmill Terrace (Fig 3). There are no waiting restrictions in operation.

Shared and segregated pedestrian/cycle facilities are present on both sides of carriageway with grass verge's present in some places.

Bishop Duppas Recreation Ground is located to the north west of Walton Bridge Road.

A petrol station is present at the junction with Walton Bridge Road and Marshalls Roundabouts with entrances in both Walton Bridge Road and Russell Road. Fuel tankers enter the station in Walton Bridge Road and exit onto Russell Road.

As a consequence of the sites location on the strategic road network, A244 Walton Bridge Road carries a high volume of traffic, including a significant proportion of commercial vehicles. This makes it potentially difficult for pedestrians, especially the elderly, those with disabilities, or children, to find suitable gaps in traffic to cross the road safely without some form of assistance. In peak hours traffic regularly queues back along the A244 Walton Bridge Road from the Marshalls roundabout, which increases the difficulty for pedestrians, especially in the dark.

There are currently two places where dropped kerbs and refuge islands have been provided for pedestrians to cross the road. The first is just south of the roundabout at the junction with Walton Lane. The other is just north of the roundabout outside Walton Bridge Garage (Fig 2). There are no provisions between Walton Bridge Garage and Marshall Roundabout for pedestrians wishing to cross the road.

Pedestrians wishing to cross between Walton Bridge Garage and Marshall Roundabout can experience long periods of time waiting for suitable gaps in the traffic flow. Invariably when suitable breaks in traffic occur in one direction they do not correspond with breaks in the other. Resulting in pedestrians waiting in the centre of the road.

Staggered bus stops are located on either side of A244 Walton Bridge Road, south of the Marshalls roundabout, and north of Walton Bridge roundabout.

These bus stops service nearby areas of Shepperton, Sunbury Upper Halliford, Staines upon Thames, Stanwell Moor, Ashford, Charlton Village, Laleham, Walton on Thames, Hershams, Esher, Thames Ditton, Kingston and Heathrow Airport.

Passenger Transport Group have confirmed that there are three services that use the A244 Walton Bridge Road.

- 400 – service running three times per day, Mon-Fri.
- 458 – service running every 30 minutes, Mon-Sat, every 60 minutes Sundays
- 555 – service running every 60 minutes, daily

Several site visits have been carried out but no pattern of crossing points have been identified. There are anecdotal reports that pedestrians do cross near the junction with Marshalls Roundabout using the existing traffic island (Fig 4).

However, as it is now, we would not encourage pedestrians to cross here as there are no dropped kerb or tactile facilities on the traffic island. Pedestrians with pushchairs or wheelchairs would not be safe to use the traffic island as an unofficial midpoint refuge to enable them to cross in two stages.

Suitable new locations for crossing points with pedestrian refuges will be limited due the amount of vehicle entrances present within the road. A poorly positioned refuge could impede or obstruct the vehicle access to a property.

A location plan showing the key existing features of the site together with site photos are shown in Figures 2 – 5 below.

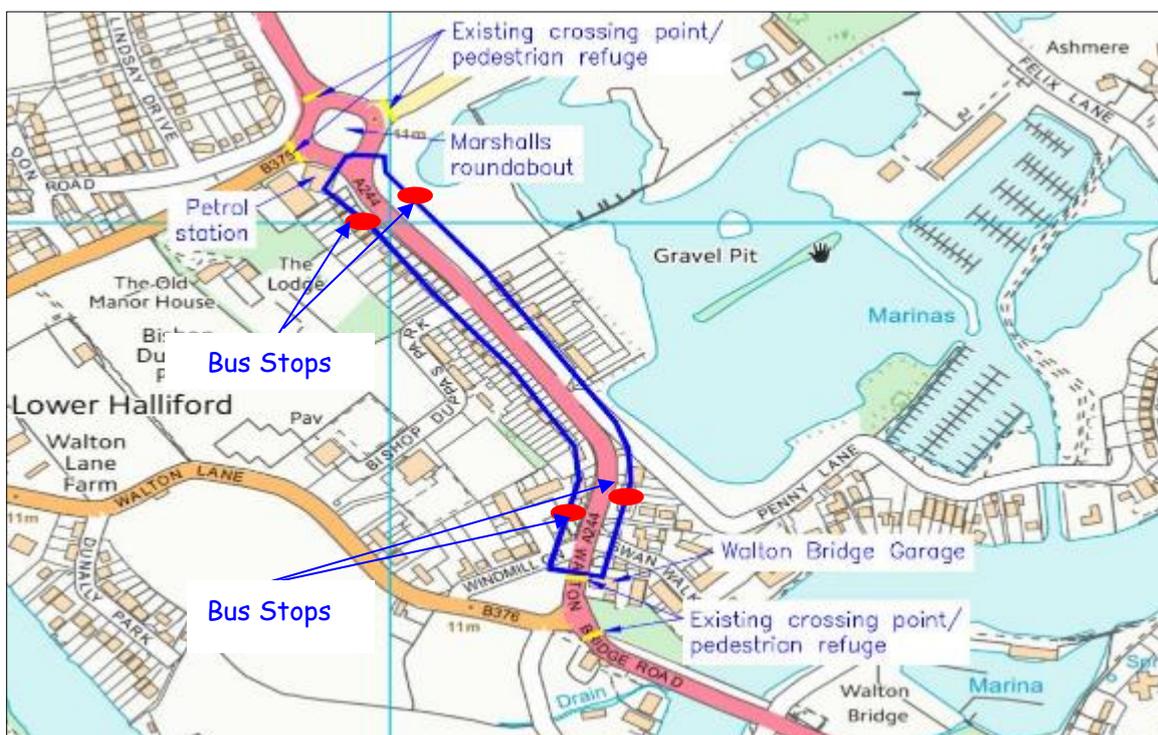


Fig 2. Location Plan



Fig 3. Walton Bridge Road. Crossing Point outside Walton Bridge Garage.



Fig 4. Walton Bridge Road looking North West. Parking bays outside Windmill Terrace.



Fig 5. Walton Bridge Road. Junction with Marshalls Roundabout.

### **3. DATA COLLECTION**

#### **3.1 Personal Injury Collisions**

An assessment has been made of the personal injury collisions as recorded by Surrey Police for this section of Walton Bridge Road for the period between 1<sup>st</sup> January 2016 and 31<sup>st</sup> May 2019. During this period there have been no personal injury collisions involving pedestrians, however, two of the six collisions involved cyclists. There are no identifiable patterns to the causes of these collisions and nothing to suggest that highway improvements should be considered.

Last three years and year to date collisions (01/01/16 to Nov 31 <sup>st</sup> May 2019)			
Year	Slight	Serious	Fatal
2016	3	0	0
2017	2	0	0
2018	0	0	0
2019	1	0	0
<b>Total</b>	<b>6</b>	<b>0</b>	<b>0</b>

Fig 6 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 Walton Bridge Road during this assessment period. Some collisions have a number of factors attributed to them

<b>Collision Contributor Factors</b>	
<b>Factor</b>	<b>Number</b>
<b>Defective Brakes</b>	1
<b>Inexperienced or learner driver/rider</b>	1
<b>Failed to look properly</b>	1
<b>Distraction outside vehicle</b>	1
<b>Aggressive driving</b>	1
<b>Sudden braking</b>	1
<b>Poor turn or manoeuvre</b>	2
<b>Impaired by drugs (illicit or medicinal)</b>	1
<b>Tyres illegal, defective or under inflated</b>	1
<b>Loss of control</b>	1

Fig 07. Personal Injury Collision Contributory Factors

### 3.2 Highway Extents

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

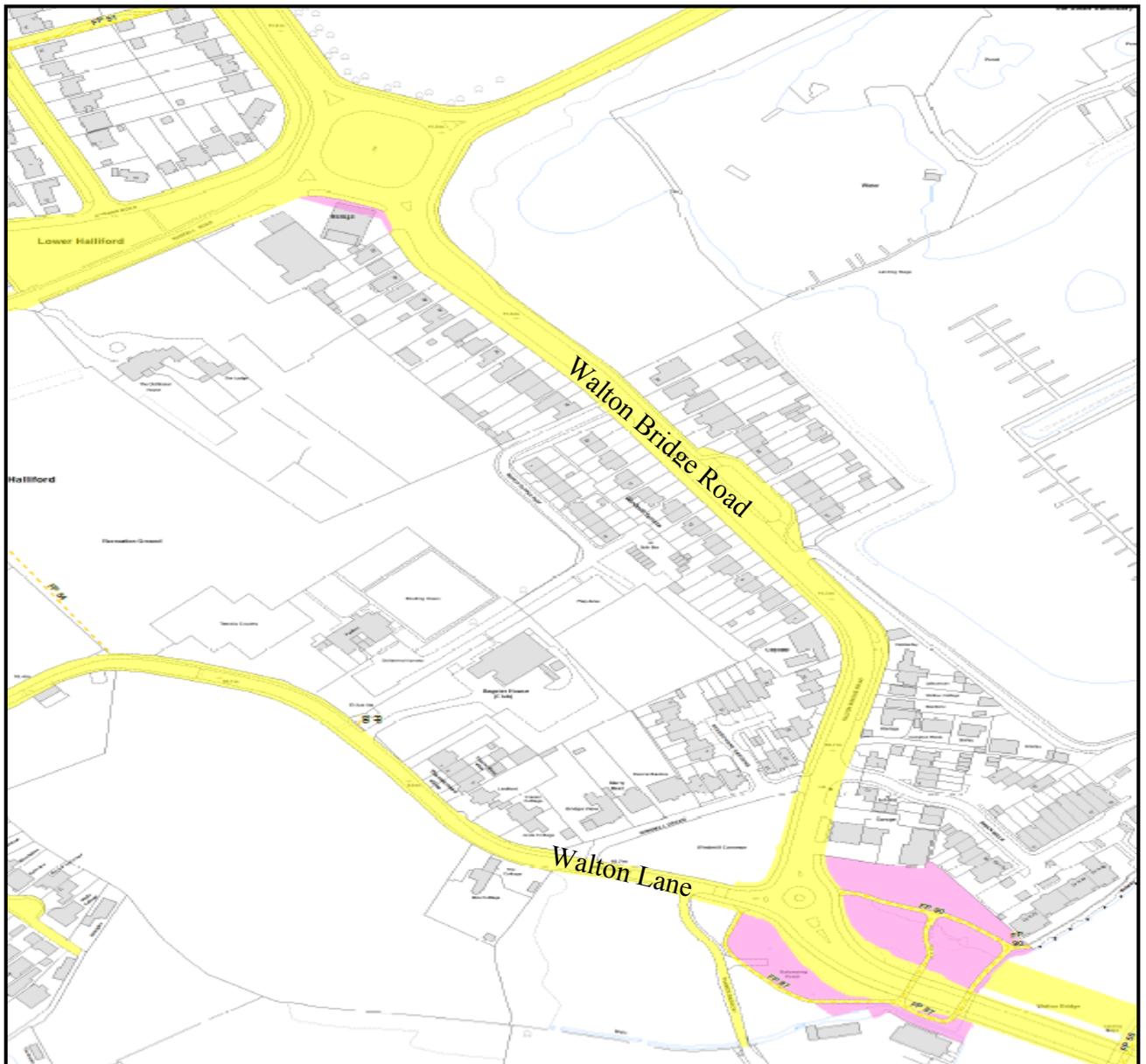


Fig 8 Extent of Public Highway

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

### **4.1 Design and Road Safety Audit**

Design options have been prepared to achieve the main objective of the brief.

- To investigate options for additional pedestrian crossings on the A244 Walton Bridge Road.

Three separate locations have been identified as suitable sites for a pedestrian refuge island. No other suitable locations for crossings with pedestrian refuges could be found along this section of Walton Bridge Road as their positioning would obstruct the path of vehicles wishing to enter or exit properties.

The feasibility designs are based Ordnance Survey mapping. Detailed design would determine the exact highway widths available via topographical surveys as necessary. This would allow for confirmation of turning movements and available highway space.

An independent road safety audit has been undertaken on a number of the options where changes to the highway layout are proposed. Comments are included within the discussion of the options. Further independent safety audits would take place on any options that were to be progressed.

### **4.2 Option 1 – Do Nothing**

This option look at carrying out no works.

**Estimated Cost: £0**

#### Conclusion

Based on the recorded evidence of collisions involving pedestrians which have resulted in personal injury, measures could not be justified in terms of casualty reduction when compared to other locations. However, we recognise the public's desire for improvements and as the Highway Authority Surrey County Council should be actively looking to provide improvements to the Highway network that could help to reduce personal injury collisions. These types of measures may also enhance the environment for residents and road users, and potentially encourage increased travel by sustainable methods such as walking or cycling.

#### **4.3 Option 2 – Crossing Point with Pedestrian Refuge Island -2.4m wide (Marshalls Roundabout) – (See drawing PC1029 -01 Sheet 1)**

This option looks at installing a crossing point in Walton Bridge Road at the junction with Marshalls Roundabout located next to a petrol station entrance/exit. The existing traffic island would be utilised and converted in to a 2.4m wide pedestrian refuge. A 2.4m wide refuge island provides a comfortable space for both wheelchair users and pedestrians waiting to cross the carriageway in two stages.

The end section of segregated of cycle/pedestrian facilities would have to be changed to a shared (unsegregated) section of cycle/pedestrian facilities so that pedestrians wishing to cross the road are not stood in a cycle facility.

The existing kerb line adjacent to the petrol station would have to be built out into the entrance/exit of the petrol station so there is enough room to incorporate the new crossing point in the existing footway. Vehicle paths have been simulated and the build out would not obstruct the path of vehicles wishing to enter or exit the petrol station. As this will affect the entrance of the petrol station initial discussions have taken place with the forecourt manager, who was positive about the idea.

#### Conclusion.

Currently anyone wishing to use existing provisions to get to the other side of Walton Bridge Road at this point would have to walk round the entire roundabout using crossing points on the three other arms.

This option provides a crossing point at a location where pedestrians are likely to cross the road. Converting the existing island to a refuge will allow pedestrians to cross the road in two stages making it easier for them to cross. It is recommended that further discussions take place with the petrol station before pursuing this idea.

Budget Price £32,000

#### **4.4 Option 3 – Crossing Point with Pedestrian Refuge Island -1.8m wide (see drawing - PC1029-01 Sheet 2)**

This option would provide an uncontrolled crossing point with a pedestrian refuge island outside property 36 which is approximately 90m South East of Marshalls Roundabout and 372m North West of the crossing point outside Walton Bridge Garage.

The proposed refuge island width of 1.8m has been shown which is above the minimum requirement and is sufficient space for both wheelchair users and pedestrians waiting to cross the carriageway in two stages.

A swept path analysis for three vehicles types (car, refuse, pantehnicon) has been undertaken to ensure that the proposed refuge island would not impede or restrict any existing movements.

The end section of segregated of cycle/pedestrian facilities would have to be changed to a shared (unsegregated) section of cycle/pedestrian facilities so that pedestrians wishing to cross the road are not stood in a cycle facility.

The road safety audit noted that for pedestrians on the east side attempting to cross to the proposed refuge, there is a risk of conflict with southbound vehicles when there is a bus stationary in the Bus Stop, as the bus restricts the visibility for and of pedestrians. Guidelines state that the desirable minimum visibility should be 65m, with this option visibility is 60m (when a bus is stationary in the bus stop)

### Conclusion

There is no evidence to suggest that pedestrians cross the road regularly at this location at the moment, and it is unlikely that many pedestrians walking around Marshalls Roundabout would walk 90m to this crossing point. However, it is a good location for those wanting to access the northern bus stops and offers a facility for pedestrians walking along the road that wish to cross in two stages. An added benefit is that there is sufficient space within the existing carriageway without the need to alter the carriageway alignment.

The road safety audit recommended relocating the pedestrian refuge where improved visibility for and of pedestrians could be achieved, however due to both the layout of the road and presence of vehicle crossovers, there are no other alternative locations where a refuge island could be accommodated, within this section of Walton Bridge Road.

Budget Price £28,000

### **4.5 Option 4 – Crossing Point with Pedestrian Refuge Island - 1.8m wide (See drawing - PC1029-01 Sheet 3)**

This option would provide an uncontrolled crossing point with a pedestrian refuge island outside property 12 which is approximately 240m South East of Marshalls Roundabout and 225m North West of the crossing point outside Walton Bridge Garage.

The proposed refuge island width of 1.8m has been shown which is above the minimum requirement and is sufficient space for both wheelchair users and pedestrians waiting to cross the carriageway in two stages.

A swept path analysis for three vehicles types (car, refuse, pantehnicon) has been undertaken to ensure that the proposed refuge island would not impede or restrict any existing movements.

A section of segregated of cycle/pedestrian facilities would have to be changed to a shared (unsegregated) section of cycle/pedestrian facilities so that pedestrians wishing to cross the road are not stood in a cycle facility. Outside Windmill Terrace

a section of the marked parking bays (approximately 90m) would have to be removed to accommodate the new refuge.

### Conclusion

This option would provide a crossing point approximately half way between Marshalls Roundabout and the uncontrolled crossing outside Walton Bridge Garage. There is no evidence to suggest that pedestrians cross the road regularly at this location at the moment, and it is too far away to access the bus stops. However if a crossing point is installed it is likely to be used by pedestrians walking along the road that wish to cross to access Bishop Duppa's recreation ground. Removing parking here is likely to prove unpopular, it is recommended that consultation is carried out before proceeding.

Budget Price £31,000

#### **4.6 OTHER OPTIONS CONSIDERED BUT DISMISSED:**

- **3.9m Pedestrian Refuge Island – Marshalls Roundabout**

A wider pedestrian refuge island at the same location as Option 2 was considered, however, while it is possible to increase the width of the island, it would be necessary to reduce the southbound lane exit from a two lane exit to a single lane exit. This would significantly increase the scope and cost of the scheme, and could well be detrimental to the capacity of the roundabout. The impact on traffic flow at peak times outweighs the benefits of a wider island. (Peak time traffic is already congested with two lanes)

- **Zebra/Puffin Crossing**

Controlled pedestrian crossings were considered however as their use would be limited this was not considered to be a cost effective solution.

#### **5: RECOMMENDATIONS:**

Option 2 is recommended as this would provide a crossing point at a location where pedestrians would expect to be able to cross. Further discussions with the petrol station would be required before proceeding with this option.

Option 5 is recommended as an option to be installed alongside Option 2, however as the removal of parking could prove unpopular it is recommended that consultation is carried out before proceeding.

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