

**Esher Green, Esher
Collision reduction scheme
Feasibility Report**

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Collision reduction scheme

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1. INTRODUCTION:

This report is to investigate the feasibility of the range of measures that could help reduce the number of collisions that have been taking place at the junction between A244 Lammas Lane, A244 Church Street, A244 Esher Green, D6897 Esher Green (More Lane), D6897 Esher Green (one-way section) and D6897 Esher Place Avenue.

Several reports have been presented to the Local Committee in the past highlighting the collision issues with this site as well as making recommendations. A brief overview of the site's history is shown below:

The existing junction layout was created in 1989 to address a significant accident and congestion problem. Key issues addressed at the time included:

- An ongoing accident problem of traffic turning right from More Lane into Lammas Lane and having priority over traffic exiting from Church Street.
- Traffic in Church Street waiting to turn left onto Lammas Lane frequently backed up Church Street and affected the operation of the traffic signals in the High Street.
- The lack of a dedicated lay-by arrangement outside Christ Church in Church Street resulted in hearses and wedding cars effectively blocking Church Street.
- No dedicated facility for vehicles waiting to turn right into Esher Place Avenue.
- The slip road across Esher Green towards Tellisford allowed two way traffic flow.
- Significant levels of traffic were using the residential More Lane in the morning and evening to avoid using Esher town centre.

All of these issues were addressed by the scheme implemented in 1989.

Following the introduction of this scheme an after study was completed and a number of minor changes were made between 1993 and 1998. This included:

- Alterations of the existing road signage and lining to better define the junction priorities.

- Realignment and resizing of a number of the islands to create additional deflection and to increase the width of the movement from Church Street into More Lane.
- The laying of high performance coloured anti skid asphalt surface on the Lammas Lane approach to the junction.
- Improving the advance direction signing to Sandown Park, with particular attention to the rear entrance in More Lane as a number of those vehicles involved in accidents had been travelling to this expanding centre.
- Alterations to the lane markings in Church Street to try to improve lane discipline on the approach to the junction.
- Improvements to pedestrian facilities.

Having completed these measures there was still an underlying collision problem associated with the cross movement from Church Street into More Lane. In 1999 funding was given to a feasibility study to arrive at a long-term comprehensive solution for the junction. Recommendations were made, and there was then development of the two preferred options (a conventional (kerbed central island) roundabout and a realignment of the A244 Lammas Lane approach). With the termination of the Highway Agency agreement in April 2002, the scheme was reviewed and a number of options (including a realignment, together with two traffic signal options and an experimental Bus-Gate proposal) were prepared for public consultation.

Following this consultation, the preferred scheme of re-aligning the Lammas Lane approach was given the most support. This option was then to be developed alongside seeking to move the War Memorial, realigning Esher Place Avenue into More Lane, and discussing the possible closure of the one-way road across Esher Green toward Tellisford. This was agreed at the Local Committee in March 2004.

In September 2005 a report was taken to the Local Committee to approve a detailed design of a scheme and agree the Statutory Procedures necessary to progress it. The scheme that was for approval has Esher Place Avenue exiting as it does currently into Lammas Lane. The reason for this change was because there was insufficient land to 'swap' for the Common Land that would be required to implement the original scheme. To help minimise the impact this would have on Lammas Lane, it was intended that an island should be extended to essentially prevent right turn movements either into or out of Esher Place Avenue. The War Memorial was still required to be repositioned to allow the scheme to be implemented. There would also be two new signal controlled pedestrian crossing facilities to be constructed on Lammas Lane and Church Street.

In March 2006 a report was taken to the Local Committee as a result of objections received to the proposed restrictions to movements into and out of Esher Place Avenue. Recommendations were made that the design was

developed to remove the need for these restrictions (see Figure 1). It also said that monitoring of the location would be necessary following the construction of the scheme to ensure that road safety had not been compromised by this decision, and if it had, then to re-consider the implementation of the movement bans.



Figure 1: Recommended design for junction from March 2006 Local Committee Report

Since these reports the junction has benefited from two new controlled pedestrian crossing points as well as a minor improvement to the central island at the time of the London 2012 Olympic Games Cycle race.

The scheme that was agreed in March 2006 (see Figure 1) has not progressed from the design stage due to the requirement to reposition the War Memorial, where discussions are on-going.

Collisions are still occurring, and this report is to evaluate options to help to reduce the number of collisions, whilst at the same time avoiding the need to use Common Land, and/or the requirement for the War Memorial to be repositioned.

2. SITE ANALYSIS:

Lammas Lane is a busy 'A' road linking Hersham to Esher, with a speed limit of 30mph. Church Street and Esher Green are also 'A' roads and make up part of the Esher one-way system. On site observations have shown that the majority of traffic flows east to west from Lammas Lane to Esher Green, and north to west from Church Street to Lammas Lane. Currently both these routes have priority and do not require motorists to give way. There are six roads that make up this junction, with 16 movements possible. These movements are managed by give ways signs and road markings and priority

routes, and thus rely on drivers to have good visibility and the ability to adequately judge other vehicle's path and speed.

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3. DATA COLLECTION:

3.1 Personal Injury Collisions

An assessment has been made of the personal injury collisions that have been reported by the police between the period 1st January 2011 to 31st October 2016, around the junction. During this period there are thirty six recorded personal injury collisions, thirty had a severity of 'slight' and six 'serious'.

Latest 5 years and year to date collisions (01/01/11 to (31/10/16)			
Year	Slight	Serious	Fatal
2011	1	0	0
2012	3	0	0
2013	6	2	0
2014	3	2	0
2015	6	2	0
2016 (Jan to Oct)	11	0	0
Total	30	6	0

Figure 2: Collision data

Twenty six collisions took place during daylight, whilst ten were during darkness, but with street lights. The vast majority, thirty four, of the collisions happened when the road surface was dry. 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 at this location during this assessment period. Some collisions have a number of factors attributed to them.

Collision contributory factors (01/01/11 to (31/10/16)	
Factor	Number
Failed to look properly	24
Failed to judge other persons path or speed	9
Disobeyed Give Way or Stop sign	8
Junction overshoot	7
No factors given	4
Careless/Reckless/In a hurry	3
Vision affected by dazzling sun	2
Exceeding speed limit	2
Inexperience or learner driver	1
Vision affected by road layout	1
Distraction in vehicle	1
Junction restart	1
Slippery road (due to weather)	1
Impaired by alcohol	1

Figure 3: Collision contributory factors

Over three-quarters of the recorded collisions involve two vehicles, one of which was travelling from west to east (from Hersham to Esher) and the other vehicle crossing their path by travelling south to north (Esher to Lower Green).

On site observations have shown that vehicles waiting at the Church Street junction to head north into More Lane have restricted visibility to the west. This restriction is further reduced when a vehicle from Church Street is waiting to turn right into Esher Place Avenue.

Anecdotal evidence from a resident seems to suggest that there is an issue with drivers travelling north along Church Street and wishing to enter the one-way section across Esher Green towards Tellisford to access the on-street parking that allows for non-permit holders. The existing road layout does not provide clear instructions for drivers to make this maneuver, and this results in unexpected hesitancy and/or an inability for other drivers to correctly judge the movement, which in turn could result in a collision. It should be noted that none the recorded collisions provide enough detail to indicate this as a cause.

4. DISCUSSION AND OPTIONS:

It should be noted that the options provided below reflect those that have been investigated and may not necessarily be options that would be recommended for implementation.

4.1 Do Nothing

The location has an on-going high level of personal injury collisions; by taking no action it would not address this issue. It is therefore not considered a satisfactory option.

4.2 Do minimum

Signing improvements on approaches and at the junction

4.3 Option 1a – Circulatory Design

(See Appendix Option 1a)

4.4 Option 1b – Circulatory Design with greater deflection than 1a

(See Appendix Option 1b)

4.5 Option 1a – Circulatory Design with greater deflection than 1b

(See Appendix Option 1c)

4.6 Option 2 – Speed cushions

(See Appendix Option 2)

4.7 Option 3 – Speed tables

(See Appendix Option 3)

4.8 Option 4 – Junction table

(See Appendix Option 4)

4.9 Option 5 – Traffic signals

(See Appendix Option 5)

4.10 Option 6 – Junction priority changes

(See Appendix Option 6)

4.11 Option 7 – Removal of south to north movement

(See Appendix Option 7)

4.12 Option 8 – Increased deflection along west to east movement

(See Appendix Option 8)

4.13 Option 9 – Closure of one-way access road across Esher Green

(See Appendix Option 9)

5. RECOMMENDATION:

This junction, despite its numerous changes, still has a high number of personal injury collisions taking place. Whilst the scheme agreed in March 2006 should help to address this, because of the continuing delays in seeking permission to move the War Memorial and issues relating to Common Land, people are continuing to be hurt at this junction. Whilst some of the options in this report are likely to have a greater effect on casualties, these would be very expensive and unlikely to be affordable in the near future. In addition, a large scheme at this stage could prove abortive if the Esher Transport Study concludes that a different arrangement would be beneficial when looking at transport / traffic patterns through Esher holistically. It is therefore recommended that a phased approach be agreed,

that will install measures that should reduce the number/severity of the collisions whilst at the same time be conducive to whatever final scheme is delivered.

Phase One: Review existing signage to ensure that clear and concise information is provided. Provide additional signage only where a clear benefit can be established.

Phase Two: Place the existing controlled pedestrian crossings in both Lammas Lane and Church Street on raised road tables. This will help to reduce speeds with the intention of increasing the length of time drivers have of seeing each other, therefore have more time to react to any situation. It also has the added benefit of adding to the conspicuousness of the pedestrian crossings. It is envisioned that Phases One and Two could take place as one initial stage, subject to funding. Once installed, a review period of one year will be needed to confirm the extent of change to the levels of collisions at the junctions. A report should then be brought back to this Local Committee highlighting the comparison between the collision rates pre and post Phase One and Two works. The Local Committee should then agree to either continue to monitor the collisions for a longer period of time, agree that the levels of collisions have been reduced to a level similar to other junctions in the county and thus no further action is necessary at this time or to implement Phase Three.

Phase Three: Install an experimental restriction to right turn movements into and out of Esher Place Avenue, and an experimental closure of the one-way road across Esher Green to Tellisford (Option 9). Although the restriction of movements into and out of Esher Place Avenue have previously been investigated, consulted upon and ultimately rejected, this was based upon a design where those travelling south to north (Church Street to More Lane) did not have to give way to traffic on Lammas Lane. It is considered that with the existing junction priority, removing vehicles from being able to wait to turn right from Church Street into Esher Place Avenue would allow greater visibility of/for oncoming traffic. Simply banning the movements is unlikely to have complete compliance, and therefore a physical restriction would be necessary. This experimental closure would then be followed by a period of monitoring of one year to see if there is a reduction in collisions. A report should then be brought back to this Local Committee highlighting the comparison between the collision rates pre and post Phase Three works. The Local Committee should then agree one of the following:

- that the levels of collisions have been reduced to a level similar to other junctions in the county and thus look to permanently ban the movements and that no other works are necessary at this time;
- that the levels of collisions have been reduced slightly and look to permanently ban the movements and move forward to Phase Four;

- that the temporary changes make little difference or increase collisions, then the layout should be restored to its original provision, and move forward to Phase Four.

Phase Four: This phase would include a review of the remaining untested options (appendix 1-9), together with any new suggestions that come to light, to see whether further changes would be beneficial in mitigating the pattern of casualties.

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