

HAMPSHIRE COUNTY COUNCIL

Decision Report

Decision Maker:	Executive Member for Economy, Transport and Environment
Date:	4 March 2014
Title:	Project Appraisal: A30 Hartford Bridge Flats and Blackbushe Junctions Improvement
Reference:	5582
Report From:	Director of Economy, Transport and Environment

Contact name: Claire Lucas

Tel: 01962 845051

Email: claire.lucas@hants.gov.uk

1. Executive Summary

1.1. The purpose of this paper is to seek approval to implement the construction of a new roundabout at the A30 Hartford Bridge Flats junction with the A327 Reading Road, along with improvements to the roundabout at Blackbushe Airport in order to improve safety and ease congestion. The paper seeks authority:

To procure and spend to implement the scheme.

To promote traffic regulation orders to reduce the speed limit through the proposed and existing roundabouts.

To promote traffic regulation orders to ban the right turn into and out of Blackbushes Road from the A30.

To approve at this stage, in recognition of the time constraints, the award of £1,478,400 Pinch Point Funding from the Department for Transport.

1.2. Scheme Outline

The A30 Hartford Bridge Flats junction has experienced significant accident problems over the past 25 years. Most recently there have been 19 personal injury accidents in the last five years. To address the accident issues, various casualty reduction schemes have been implemented over the 25 year period.

There are also issues with congestion for vehicles turning out of the A327 onto the A30, with the junction currently approaching capacity in the am peak and over capacity in the pm peak.

To alleviate the accident problem and address the issues of congestion, a phased scheme has been developed that could ultimately see a four-arm junction provided at Hartford Bridge Flats. However, to fit within the funding constraints of the Governments Pinch Point programme, the initial phase will see the introduction of a three arm roundabout at the priority junction of the A30 with the A327, realignment of the existing roundabout junction at Blackbushe Airport, and the banning of a right turn into and out of Blackbushes Road from the A30.

1.3. Alternative Options Considered and Rejected

A range of options have been explored during the feasibility work:

Do Nothing: this option has been rejected as there is an on-going safety issue at the junctions, and an increasing issue of congestion.

Do Minimum: over the past 25 years, a series of low cost safety measures have been undertaken at the A30/A327 junction, and although these have seen some improvement, an accident problem remains. Further low cost measures have been considered but are unlikely to address the scheme objectives. Therefore this option has also been rejected.

Do Something: along with the preferred option that is the subject of this report, four other options have been considered and rejected as part of a feasibility study. These are as follows:

- i. **Traffic Signals:** initial feasibility work was undertaken some years ago but indicated that vehicle speeds would be a safety problem with a substantial risk of high speed rear end shunts. In addition, the removal of all vegetation on all approaches to the junction would be required to provide the necessary inter-visibility and approach visibility. Queuing was indicated to be significant on all arms with no reserve capacity. Consequently, traffic signals are not considered a viable option.
- ii. **A four arm roundabout at Hartford Bridge Flats junction incorporating realignment of both the A327 and Blackbushes Road approaches.** This scheme would require land at both North East and South West Quadrants; the former incorporating a SSSI and the latter requiring planning permission. In view of the procedural constraints, the need for land negotiation that may lead to Compulsory Purchase and the environmental impacts on the SSSI this option has not been considered
- iii. **An elongated, four arm roundabout at Hartford Bridge Flats junction.** This is much larger than in the proposed scheme and has straight

sections. This is not to standard (except for Grade Separated Roundabouts) and will encourage higher speeds on the circulatory which conflicts with the scheme brief for a safer junction. This option requires land outside of the highway boundary and would have ecological impacts on the adjacent Site of Special Scientific Interest (SSSI). This option also does little to address the accident record at Blackbushe Airport roundabout.

- iv. A three arm roundabout at Hartford Bridge Flats, but omitting the improvements to the roundabout at Blackbushe Airport. This option was rejected at Road Safety Audit because of the current safety record at the Blackbushe Airport roundabout, and its geometry which would not adequately accommodate U-turning traffic, therefore increasing safety risks at this junction.

1.4. Measures of Success

Improved safety, monitored through accident records. Reduced congestion/delays for traffic exiting the A327.

2. Background

- 2.1. The Hartford Bridge Flats junction is located on the A30 at a staggered crossroads with the A327 Reading Road to the north and Blackbushes Road to the south. Blackbushe junction is a 3 arm roundabout on the A30, a short distance to the east, providing access to Blackbushe Airport. The A30 runs east-west and is locally connected to the M3 at junctions 4, 4A and 5, and connects Basingstoke and Camberley, providing both strategic and local access. The A327 is the north-south route connecting to Reading, to M3 Junction 4A, and to Farnborough and the Blackwater Valley.
- 2.2. Through the junction on the A30 there is a wide central island with turning lanes. There are no footways but there are grass verges on both sides of the road and SSSIs on three sides surrounding the junction.
- 2.3. Over the period 01/09/08 to 31/08/13, 19 personal injury accidents were recorded at the Hartford Bridge Flats junction. Of these, five were classed as serious, and four of these were affecting vulnerable road users (motorcyclists). Two of these were near fatalities that resulted in life changing injuries.
- 2.4. An analysis of these accidents showed that of the movements at the junction, one accident involved the approach to the junction and 18 involved turning movements. 10 of those accidents involved the right turn into the A327 and this movement accounted for 2 of the 5 serious accidents and 1 of the near fatalities. Both of the potentially fatal accidents involved motorcyclists travelling east on the A30 towards the junction.
- 2.5. The two personal injury accidents resulting in life changing injuries to motorcyclists were investigated as potentially fatal accidents by the North

Area Casualty Reduction Partnership. The partnership includes officers from Hampshire County Council, Hart District Council and Hampshire Constabulary. It was as a result of this investigation that initial feasibility studies were re-evaluated to identify a comprehensive solution.

- 2.6. To address the accident issues, various casualty reduction schemes have been implemented over the 25 year period. Most recently low cost measures including hatching, lining, high friction surfacing and solar powered vehicle activated signs (VAS) were implemented in 2005. This resulted in an initial accident reduction of 20% over three years, from 10 personal injury accidents to 8.
- 2.7. A further scheme was undertaken in 2008 consisting of additional carriageway hatching in the A327 bellmouth and the installation of high visibility bollards. Further small improvements were undertaken in 2012/13 as part of the Safety Engineering Refurbishment and Betterment Programme, but these were not expected to substantially solve the on-going problem.
- 2.8. There is also a safety issue at Blackbushe roundabout, with 7 personal injury accidents in the same period.
- 2.9. Good communications are essential to the local economy. The Hartford Bridge Flats junction connects the A30 and the A327 so delays and accidents are a significant hindrance to effective communications in both north-south and east-west directions, and therefore adversely affect journeys to the surrounding employment areas, including the high value aerospace cluster in Farnborough.
- 2.10. North of the junction on the A327 is the proposed Arborfield Garrison Strategic Development Location (SDL) in Berkshire, which is planned to deliver 3,600 homes and 30,800m² of employment plus local services and facilities. The employment park is expected to create up to 820 full time equivalent (FTE) jobs, excluding temporary construction jobs, 554 of which will be net additional to the economy. The housing development could support or create 1249 jobs over the development period to 2029. Net additional Gross Value Added (GVA) at Arborfield is estimated to be £25.8million. The A327 provides the access route to and from the south for this development, in particular to the M3. The current long delays in the pm peak period at Hartford Bridge Flats junction constrain this access route and the ability of the Enterprise M3 LEP area to engage economically with Reading and the wider Thames Valley in general and the SDL in particular.
- 2.11. The scheme could support the expansion of the neighbouring waste recycling site at Warren Heath, from 50,000 tonnes per year to 250,000 tonnes.
- 2.12. The scheme also supports existing jobs at Blackbushe Airport and other enterprises using the site, including British Car Auctions. It supports the retention of around 7,000 existing jobs in the Hartley Wintney/Yateley area that contribute about £288million GVA to the local economy and also supports proposed development in the Hart District local plan.

- 2.13. A successful bid to the Department for Transport's Pinch Point Fund resulted in the award of £1,478,400 to the scheme which has to be spent by 31 March 2015.

3. Finance

3.1	<u>Estimates</u>	<u>£'000</u>	<u>% of total</u>	<u>Funds Available</u>	<u>£'000</u>
	Design Fee	188	7	DfT Pinch Point Fund	1,478
	Client Fee	15	1	HCC LTP	986
	Supervision	99	4		
	Construction	2,162	88		
	Land	0	0		
	Total	<u>2464</u>	<u>100</u>	Total	<u>2464</u>

3.2	<u>Revenue Implications</u>	<u>£'000</u>	<u>% Variation to Committee's budget</u>
	Net increase in current expenditure	7	0.006
	Capital Charge	163	0.107
	Total Expenditure	<u>170</u>	<u>0.113</u>

The value of construction includes for a risk element relating to design costs associated with the overall project risk.

4. Programme

- 4.1. It is intended that tenders for the works be issued in May 2014, with works commencing August 2014. Completion is expected by the end of March 2015.

5. Scheme Details

- 5.1. A location plan is shown in Appendix 1, and the general layout of phase 1 of this scheme is shown in Appendix 2. To address traffic delays and road safety issues, the scheme proposes a 3 arm roundabout at Hartford Bridge Flats (for A30/A327), providing left in/left out turns for Blackbushes Road, whilst improving the design of Blackbushe roundabout.
- 5.2. The proposed roundabout has a 43m Inscribed Circle Diameter and has deflected and flared single lane approaches in both directions on the A30, to ensure traffic speeds are reduced on entry. Street lighting will be introduced

at this junction, and will be continued along the A30 east to Blackbushe roundabout.

- 5.3. Traffic signs, road markings and coloured and high friction surfacing will be used to highlight the presence of the new roundabout.
- 5.4. A traffic island will be provided on the A30 opposite the entrance to Blackbushes Road to prevent vehicles attempting right turn manoeuvres. Vehicles wishing to turn right into Blackbushes Road need to U-turn at Blackbushe roundabout, whilst vehicles wishing to turn right from Blackbushes Road will need to U-turn at the new roundabout.
- 5.5. The geometry of the roundabout has been designed so as to accommodate a fourth arm serving Blackbushes Road to permit future provision of a second phase of the improvement with minimal additional work. The plan at Appendix 3 shows how in principle the fourth arm could be provided on the south side of the proposed roundabout to serve a realigned Blackbushes Road, subject to land acquisition, planning permission and any necessary environmental licences.
- 5.6. Deflection has been improved at Blackbushe roundabout, and new traffic islands have been introduced to segregate traffic turning right from traffic travelling straight ahead. An existing bus cage on the A30 just west of the roundabout has been relocated further west, in consultation with Hampshire County Council Passenger Transport Group. Access to this bus stop will be improved, with a new section of footway and uncontrolled crossings across the A30.
- 5.7. Existing telecommunications equipment on the southern verge just to the east of Blackbushe roundabout needs to be relocated as part of the scheme, and a small section of safety barrier is required as protection.
- 5.8. All works are within the highway boundary, and have mostly been kept within the existing kerblines.

6. Departures from Standards

- 6.1. N/A.

7. Community Engagement

- 7.1 The local County Councillor requested that consideration be given to allowing the right turn into Blackbushes Road. This has been investigated but providing a right turn at this location would be confusing to motorists and is a manoeuvre that would in itself become a potential road safety problem and therefore is contrary to the scheme objectives. Furthermore, a right-turn facility would create the potential for queuing traffic just after leaving the roundabout; lane length is limited and insufficient to comply with highways

standards of design. Queues could extend into the roundabout causing disruption and congestion to traffic from Eversley and Hartley Wintney.

- 7.1. Councillor Simpson is also working with the project team and local interested parties to develop public engagement proposals for the scheme. This will include an exhibition event for local residents of Hartley Wintney, Eversley and Yateley and liaison with local businesses, including those located at Blackbushe Airport.
- 7.2. A web page on Hantsweb is under development and will shortly provide details about the scheme and updates on progress.

8. Statutory Procedures

- 8.1. A traffic regulation order will be needed to reduce the speed limit from Hartley Wintney, through the proposed new roundabout (currently 60mph) and through Blackbushe roundabout (currently 60mph) to 50mph. This speed limit change will also affect both the A327 and Blackbushes Road.
- 8.2. A traffic regulation order will be needed to ban the right turn into Blackbushes Road from the A30, and to ban the right turn out of Blackbushes Road onto the A30.

9. Land Requirements

- 9.1. None.

10. Maintenance Implications

- 10.1. The proposals will generate increased maintenance pressures which have been calculated at around £7,000 per annum and should be taken into account when setting future annual highway maintenance budgets.
- 10.2. The materials that will be used in the construction of this scheme are standard highway materials and will match those existing at the site.

11. Recommendations

- 11.1 That approval be given to procure and spend and enter into necessary contractual arrangements to implement the proposed improvements to the A30 Hartford Bridge Flats and Blackbushe Junctions Improvement scheme, as set out in this report, at an estimated cost of £2,464,100.
- 11.2 That approval be given to promote traffic regulation orders to reduce the speed limit through the proposed and existing roundabouts.
- 11.3 That approval be given to promote traffic regulation orders to ban the right turn into and out of Blackbushes Road at the A30 junction.

11.4 That a scheme for the provision of a 4 arm serving Blackbushes Road at Hartford Bridge Flats junction be added to the Hart District Transport Statement to be considered for future funding opportunities.

Rpt/5582/CL

LTP3 Priorities and Policy Objectives

3 Priorities

To support economic growth by ensuring the safety, soundness and efficiency of the transport network in Hampshire

Provide a safe, well maintained and more resilient road network in Hampshire

Manage traffic to maximise the efficiency of existing network capacity, improving journey time reliability and reducing emissions, to support the efficient and sustainable movement of people and goods

14 Policy Objectives

Improve road safety (through delivery of casualty reduction and speed management)

Efficient management of parking provision (on and off street, including servicing)

Support use of new transport technologies (i.e. Smartcards; RTI; electric vehicle charging points)

Work with operators to grow bus travel and remove barriers to access

Support community transport provision to maintain 'safety net' of basic access to services

Improve access to rail stations, and improve parking and station facilities

Provide a home to school transport service that meets changing curriculum needs

Improve co-ordination and integration between travel modes through interchange improvements

Apply 'Manual for Streets' design principles to support a better balance between traffic and community life

Improve air quality

Reduce the need to travel, through technology and Smarter Choices measures

Promote walking and cycling to provide a healthy alternative to the car for short local journeys to work, local services or school

Develop Bus Rapid Transit and high quality public transport in South Hampshire, to reduce car dependence and improve journey time reliability

Outline and implement a long term transport strategy to enable sustainable development in major growth areas

CORPORATE OR LEGAL INFORMATION:**Links to the Corporate Strategy**

Hampshire safer and more secure for all:	yes
Corporate Improvement plan link number (if appropriate):	
Maximising well-being:	yes
Corporate Improvement plan link number (if appropriate):	
Enhancing our quality of place:	no
Corporate Improvement plan link number (if appropriate):	

Section 100 D - Local Government Act 1972 - background documents

The following documents discuss facts or matters on which this report, or an important part of it, is based and have been relied upon to a material extent in the preparation of this report. (NB: the list excludes published works and any documents which disclose exempt or confidential information as defined in the Act.)

DocumentLocation

None

IMPACT ASSESSMENTS:

1. Equalities Impact Assessment:

- 1.1 The proposals in this report have been developed with due regard to the requirements of the Equality Act 2010, including the Public Sector Equality Duty and the Council's equality objectives. The website contains a summary [assessment of the impacts](#) of the objective: "Developing Hampshire's Highway Network and Transport Systems".
- 1.2 It is considered that the issues covered by this report will not have impacts requiring further specific actions by the Council above those already established in its existing policies and working procedures.

2. Impact on Crime and Disorder:

- 2.1. None.

3. Climate Change:

- 3.1. How does what is being proposed impact on our carbon footprint / energy consumption?

By the introduction of the roundabout, this will reduce congestion and delays at this junction, therefore reducing energy used and pollution produced by traffic being stationary in queues.

- 3.2. How does what is being proposed consider the need to adapt to climate change, and be resilient to its longer term impacts?

No impact.



