

Local Pinch Point Fund Application Form



Guidance on the Application Process is available at:

<https://www.gov.uk/government/organisations/department-for-transport/series/local-pinch-point-fund>

Please include the [Checklist](#) with your completed application form.

The level of information provided should be proportionate to the size and complexity of the scheme proposed. As a guide, for a small scheme we would suggest around 25-35 pages including annexes would be appropriate.

One application form should be completed per project.

Applicant Information

Local authority name(s)*: [South Gloucestershire Council](#)

**If the bid is a joint proposal, please enter the names of all participating local authorities and specify the lead authority*

Bid Manager Name and position:

[Leigh James, Design and Operations Manager, Street Care.](#)

Name and position of officer with day to day responsibility for delivering the proposed scheme.

Contact telephone number: 01454 864025 **Email address:** leigh.james@southglos.gov.uk

Postal address: [South Gloucestershire Council](#)
[Design and Operations, Street Care](#)
[PO Box 2081, The Council Offices](#)
[Castle Street,](#)
[Thornbury](#)
[BS35 9BP](#)

When authorities submit a bid for funding to the Department, as part of the Government's commitment to greater openness in the public sector under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004, they must also publish a version excluding any commercially sensitive information on their own website within two working days of submitting the final bid to the Department. The Department reserves the right to deem the business case as non-compliant if this is not adhered to.

Please specify the weblink where this bid will be published:

www.southglos.gov.uk/transportfundingbids

SECTION A - Project description and funding profile

A1. Project name: M5 Junctions 16 and 17 Local Road Improvements

A2. Headline description:

Please enter a brief description of the proposed scheme (in no more than 100 words)

This package of two schemes modifies the local highways at M5 Junctions 16 and 17. Their purpose is to ease congestion and improve access to new and existing housing and employment in Bristol's North Fringe and form part of a Transport Package for the Cribbs Patchway New Neighbourhood which includes the 50ha of employment land within the Filton Enterprise Area and 5,750 houses. They will take place on the circulatory carriageway and will complement the Highways Agency's successful bid for Pinch Point Programme funding to modify the slip-roads at these junctions. These provide for pedestrians and cyclists.

A3. Geographical area:

Please provide a short description of area covered by the bid (in no more than 100 words)

Located in a part of the North Fringe of greater Bristol known as Cribbs Patchway, the M5 Junctions 16 and 17 form an important connection point between the local and Strategic Road Networks. Junction 16 makes an interchange with the A38 and Junction 17 with the A4018, both important radial routes into Bristol city centre. Both junctions provide access to the Filton Enterprise Area and the Cribbs Patchway New Neighbourhood. Junction 16 also gives access to existing major employers e.g. at Aztec West Business Park and adjoining areas, whilst Junction 17 gives access to the regional shopping centre at Cribbs Causeway.

OS Grid Reference: M5 Junction 16: ST 357 181
M5 Junction 17: ST 360 183

Postcode: M5 Junction 16: BS10
M5 Junction 17: BS32

Please append a map showing the location (and route) of the proposed scheme, existing transport infrastructure and other points of particular interest to the bid e.g. development sites, areas of existing employment, constraints etc.

Appendix 1: North Fringe Context Map.

Appendix 2: Cribbs/Patchway Transport Package Map.

Appendix 3: M5 Junction 16 Scheme Drawing.

Appendix 4: M5 Junction 17 Scheme Drawing.

A4. Type of bid (please tick relevant box):

Small project bids (requiring DfT funding of between £1m and £5m)

Scheme Bid

Structure Maintenance Bid

Large project bids (requiring DfT funding of between £5m and £20m)

Scheme Bid
Structure Maintenance Bid

Note: Scheme and Structure Maintenance bids will be assessed using the same criteria.

A5. Equality Analysis

Has any Equality Analysis been undertaken in line with the Equality Duty? Yes No

A6. Partnership bodies

Please provide details of the partnership bodies (if any) you plan to work within the design and delivery of the proposed scheme. This should include a short description of the role and responsibilities of the partnership bodies (which may include Development Corporations, National Parks Authorities, private sector bodies and transport operators) with confirmatory evidence of their willingness to participate in delivering the bid proposals.

These schemes will be delivered in partnership with the Highways Agency. The Highways Agency is tasked with delivering their own Pinch Point schemes which alter the slip roads at each of these junctions so as to increase their capacity. The Council's schemes are designed to be complementary to those being progressed by the Agency and so close co-operation will be required. They would also be statutory consultees for this work. A letter of support is attached as **Appendix 5**.

Although these schemes take place on the local highway network, it is necessary to continue the setting back of the kerbline onto the M5 northbound on-slip to ensure that the proposed modification meets current design standards. Initial liaison with the Highways Agency about this matter has already taken place. This is indicated by the letter from the Agency attached as **Appendix 6**.

A7. Local Enterprise Partnership / Local Transport Body Involvement

It would be beneficial (though not essential) if the relevant LEP or LTB (or shadow(s)) have considered the bid and, if necessary, prioritised it against other bids from the same area. If possible, please include a letter from the LEP / LTB confirming their support and, if more than one bid is being submitted from the area, the priority ranking in order of growth significance.

Have you appended a letter from the LEP / LTB to support this case? Yes No

A letter of support from the LEP is attached as **Appendix 7**.

SECTION B – The Business Case

You may find the following DfT tools useful in preparing your business case:

- [Transport Business Cases](#)
- [Behavioural Insights Toolkit](#)
- [Logic Mapping Hints and Tips](#)

B1. The Scheme - Summary

Please select what the scheme is trying to achieve (this will need to be supported by evidence in the Business Case). Please select all categories that apply.

- Improve access to a development site that has the potential to create housing
- Improve access to a development site that has the potential to create jobs
- Improve access to urban employment centres
- Improve access to Enterprise Zones
- Maintain accessibility by addressing the condition of structures
- Ease congestion / bottlenecks
- Other(s), Please specify – To improve access to Filton Enterprise Area.

B2. The Strategic Case

This section should set out the rationale for making the investment and evidence on the strategic fit of the proposal. It should also contain an analysis of the existing transport problems, identify the barriers that are preventing growth, explain how the preferred scheme was selected and explain what the predicted impacts will be. The impact of the scheme on releasing growth potential in Enterprise Zones, key development sites and urban employment centres will be an important factor in the assessment process.

In particular please provide evidence on the following questions (where applicable):

- a) What is the problem that is being addressed, making specific reference to barriers to growth and why this has not been addressed previously?

Rationale and strategic fit:

The North Fringe of Bristol has demonstrated strong growth in the last two decades and is one of the strongest performing economies in the UK, with demonstrable potential to drive growth in the wider region. However, the area is characterised by high levels of congestion and delays and an infrastructure deficit. Recent research for the West of England authorities (Atkins/WEP Dec 2012) has identified that accessibility challenges are causing major concerns for the business community and impacting on the competitiveness of this area and will constrain future potential jobs growth.

M5 Junctions 16 and 17 are congested at peak times and there is a blocking back onto the local road network. At peak times blocking back can also extend onto the Strategic Highway Network. The Council's forecasts suggest these problems will be exacerbated by the Cribbs Patchway New Neighbourhood (CPNN) development. Hence, the proposed improvements are designed to improve the efficiency of the operation of these junctions, thereby helping to mitigate the impact of the CPNN development and improving access to the site.

The North Fringe is an existing area of housing and major employment which is a key economic driver for the West of England sub-region (which comprises the Unitary Authorities of Bristol City Council, Bath and North East Somerset Council, North Somerset Council and South Gloucestershire Council). Existing employment includes a cluster of aerospace industries including Airbus, Rolls Royce and GKN as well as other major employers like Hewlett Packard, the MOD and the University of the West of England.

In addition, the West of England Local Enterprise Partnership (LEP) recently designated the Filton Enterprise Area as one of the 6 Enterprise Zones/Areas across the West of England area. This is forecast to provide approximately 6,500 new jobs up to 2026 and as the South Gloucestershire Core Strategy identifies - the Cribbs Patchway New Neighbourhood (CPNN) is expected to provide 5,400 new homes in the same period (see **Appendix 1: North Fringe Context Map**).

The South Gloucestershire Core Strategy is currently progressing towards adoption. To this end an Examination in Public took place in June 2012. The Inspector's recommendations are now awaited but his early comments suggest that he is broadly supportive of the Council's development strategy as set out in Policy CS5. This policy indicates that a significant proportion of future development should take place in the North Fringe of Bristol. Thus through Policy CS26 the Council is promoting the development of 50 hectares of employment land and 5,400 houses as part of the CPNN.

To ensure the new development has no adverse impact on congestion, it is supported by a holistic and comprehensive multi-modal Transport Package which is designed to give full access to the CPNN without placing reliance on private car use and is promoted by Policy CS7 of the Core Strategy. Nevertheless, it is essential that access can be obtained from the Strategic Road Network. Without this access it will not be possible to deliver jobs and new houses in the area without creating unacceptable levels of congestion. The schemes forming part of this package ensure that this access can be effectively provided without generating significant additional congestion (see **Appendix 2: Cribbs/Patchway Transport Package Map**).

During the development of the Cribbs/Patchway transport package, the Council worked up a full implementation programme. This included identifying the delivery timescale and priority for each component. This work indicated that the improvements at M5 Junctions 16 and 17 must be delivered within the first phase (within the first 5 years of the Core Strategy).

Costings and a funding plan for the Transport Package have also been worked up. After taking account of developer contributions such as Section 106 or Community Infrastructure Levy (CIL), this highlighted a funding gap of approximately £12m. This Bid for the local highway improvements at M5 Junctions 16 and 17 will help lower the funding gap and kick start the infrastructure delivery for the CPNN, a strategically important development for both South Gloucestershire and the whole of the West of England sub region.

Summary:

The highway improvements at M5 Junctions 16 and 17, which form this Bid, are part of a wider package of transport measures designed to prevent increasing congestion and improve access to the CPNN and Filton Enterprise area. The significant barrier to growth of congestion which limits access to new housing and employment land will be directly addressed by the schemes at Junctions 16 and 17 and by the transport package for the CPNN as a whole.

This scheme has not been implemented previously because it is only now that the South Gloucestershire Core Strategy's finalised development proposals are emerging. Failure to tackle these problems will materially jeopardise the growth potential of this area.

b) What options have been considered and why have alternatives have been rejected?

These schemes are part of a holistic and comprehensive multi-modal Transport Package which is designed to give full access to the Cribbs Patchway New Neighbourhood (CPNN)

by all modes. During the development of this package a number of alternative measures were examined but excluded from the final selection.

This process employed four criteria which were:

- their deliverability,
- their compliance with Joint Local Transport Plan (2011 – 2026) goals,
- their ability to contribute to the meeting the challenges raised by and release the opportunities created by the CPNN and,
- their ability to assist in providing sustainable access to the area.

The final complete CPPN Transport Package is shown at **Appendix 2: Cribbs/Patchway Transport Package Map**. The selected schemes were able to satisfy the above criteria.

A second stage in the sifting process was used to select which of the components of the CPNN Transport Package could be submitted for funding to the Local Pinch Point Fund. This was based on whether or not the schemes met the criteria set out in the guidance particularly in relation to purpose, cost and delivery timescales. Application of these criteria, with cross party support from our Lead elected Members for Planning, Transport and Strategic Environment, resulted in the selection of the schemes now being promoted for this funding.

Alternative authority wide schemes were also considered for inclusion but rejected because they did not meet the guidance criteria for this fund.

- c) What are the expected benefits / outcomes? For example, job creation, housing numbers and GVA and the basis on which these have been estimated.

As noted the North Fringe of Bristol has been one of the UK's strongest growing areas for over two decades, as a result it is characterised by traffic congestion and without mitigation this congestion will limit access to new housing and employment land including the Filton Enterprise Area. A holistic transport package for the CPNN has been developed by SGC which will directly address these problems. These schemes form an integral part of this package and are targeted at relieving congestion at M5 Junctions 16 and 17 which provide access to the Strategic Road Network.

The schemes and the comprehensive Multi-modal Transport Package, of which they form part, are designed to give full access to the Cribbs Patchway New Neighbourhood and materially assist in the delivery of 50 hectares of employment land and 5,400 houses.

To determine the contribution made by this package, a consultant study to assess the potential of transport schemes to unlock the GVA and job potential of priority growth locations in the West of England was commissioned. This study estimated that only 1,200 of the 6,500 jobs in the Filton Enterprise Area could be delivered without further transport intervention. Thus this scheme materially contributes to unlocking this potential and closing this gap.

- d) What is the project's scope and is there potential to reduce costs and still achieve the desired outcomes? For example, using value engineering.

The schemes promoted by this bid consist of the following (see **Appendix 3: M5 Junction 16 scheme drawing** and **Appendix 4: M5 Junction 17 scheme drawing**):

At M5 Junction 16 – At this junction it is planned to provide additional carriageway space on the northern side of the circulatory carriageway and on the northern approach to the junction.

It will be necessary to continue the setting back of the kerbline onto the M5 northbound on-slip to ensure that the proposed modification meet current design standards.

At M5 Junction 17 – At this junction it is planned to provide additional carriageway space on the northern side of the circulatory carriageway. Once again, it is necessary to continue the setting back of the kerbline onto the M5 northbound on-slip to ensure that the proposed modification meets current design standards.

In both cases these works are designed to accommodate pedestrian, cycle and public transport movements and will take place on land within the highway boundary or on land under the ownership of the highway authorities. Care has been taken to ensure that they dovetail seamlessly with the pinchpoint schemes promoted at these junctions by the Highways Agency.

It is considered that the scheme costs are realistic. However, as the scheme progresses we will investigate opportunities to reduce these where possible.

- e) Are there any related activities, that if not successfully concluded would mean the full economic benefits of the scheme may not be realised. For example, this could relate to land acquisition, other transport interventions being required or a need for additional consents?

The highway schemes at M5 Junctions 16 and 17 do not require any land acquisition. This is because the land required is in the ownership of the relevant highway authorities (either the Council or the Highways Agency). These improvements will take place within the existing highway curtilage, therefore they do not require formal planning permission which would introduce delay. It will of course be necessary to obtain full agreement from the Highways Agency before commencing construction. To this end liaison about this project has already commenced.

The local contribution element of this Bid is part of the Section 106 funding for the Charlton Hayes development (Filton Northfield). This contribution has been made in respect of 'highway improvements' to support this development. As Charlton Hayes lies immediately north of the eastern part of the Cribbs Patchway New Neighbourhood (see **Appendix 1: North Fringe Context Map**) it will directly benefit from the proposals which form the subject of this funding bid. The Section 106 is agreed and funding has been received by the Council.

These schemes form part of a holistic and comprehensive multi-modal Transport Package which is designed to give full access to the Cribbs Patchway New Neighbourhood, but each component of the package is designed to be delivered as an individual stand alone project with its own benefits. Hence, the schemes which are the subject of this Bid are not directly dependent upon any other scheme. Indeed, these improvements could if required be delivered without the Highways Agency's adjacent slip-road schemes.

- f) What will happen if funding for this scheme is not secured - would an alternative (lower cost) solution be implemented (if yes, please describe this alternative and how it differs from the proposed scheme)?

If Pinch Point Programme funding is not secured for these schemes then their delivery will be delayed until funding can be obtained from other sources. There is not a lower cost alternative which could be delivered instead. As these schemes are required to facilitate access to the Cribbs Patchway New Neighbourhood from an early stage, any delay in their implementation may in turn delay the delivery of the houses and jobs inherent in these development proposals.

In order to examine the benefits accruing from these detailed testing of the junctions has been undertaken. This has been accomplished by extracting traffic forecasts for 'with' and 'without development' scenarios from the strategic model covering this area (see Section B6) and using these in bespoke local models covering each of these junctions. These tests have indicated that it is essential that these proposals are carried out, otherwise delivery of the residential, retail and employment development could not take place.

What is the impact of the scheme – and any associated mitigation works – on any statutory environmental constraints? For example, Local Air Quality Management Zones.

An Air Quality Management Area (AQMA) was declared at Cribbs Causeway (adjacent to M5 Junction 17) in 2010. Further assessment of this AQMA revealed that levels of nitrogen dioxide were in fact below the government target in 2010. Further monitoring in 2011 and 2012 showed air quality in this location remains below the threshold for declaring an AQMA and South Gloucestershire Council proposes to revoke the AQMA in early 2013.

Implementation of the proposed highway scheme at M5 Junction 17 will make the operation of this junction more efficient, thereby minimising the impacts on air quality. We will continue to monitor air quality in this location to ensure an AQMA designation remains unnecessary.

No other environmental constraints will be affected by the proposed schemes at M5 Junctions 16 and 17.

B3. The Financial Case – Project Costs

Before preparing a scheme proposal for submission, bid promoters should ensure they understand the financial implications of developing the scheme (including any implications for future resource spend and ongoing costs relating to maintaining and operating the asset), and the need to secure and underwrite any necessary funding outside the Department's maximum contribution.

Please complete the following tables. **Figures should be entered in £000s** (i.e. £10,000 = 10).

Table A: Funding profile (Nominal terms)

£000s	2013-14	2014-15	2015-16	Total
DfT funding sought	553.9	1,126.1		1,680.0
Local Authority contribution	20.0	0.0	0.0	20.0
Third Party contribution	362.8	308.7	28.4	700.0
TOTAL	936.7	1,434.9	28.4	2,400.0

N.B. Totals have been subject to rounding

Table B: Cost estimates (Nominal terms)

Cost heading	Cost (£000s)	Date estimated	Status (e.g. target price)
Engineering Works	£1,251.2	19/02/2013	Target Price
Site Supervision	£50.0	19/02/2013	Target Price

Preliminaries (Set up site etc)	£155.2	19/02/2013	Target Price
Part 1 Claims	£25.0	19/02/2013	Target Price
Preparatory cost (design fees, consultation etc)	£125.1	19/02/2013	Target Price
Project Management	£22.5	19/02/2013	Target Price
Scheme Evaluation	£3.8	19/02/2013	Target Price
Inflation	£164.2	19/02/2013	Target Price
Risk	£602.9	19/02/2013	Target Price

Notes:

- 1) Department for Transport funding must not go beyond 2014-15 financial year.
- 2) A minimum local contribution of 30% (local authority and/or third party) of the project costs is required.
- 3) Costs in Table B should be presented in outturn prices and must match the total amount of funding indicated in Table A.

B4. The Financial Case - Local Contribution / Third Party Funding

Please provide information on the following points (where applicable):

- a) The non-DfT contribution may include funding from organisations other than the scheme promoter. If the scheme improves transport links to a new development, we would expect to see a significant contribution from the developer. Please provide details of all non-DfT funding contributions to the scheme costs. This should include evidence to show how any third party contributions are being secured, the level of commitment and when they will become available.

The local contribution element of this Bid will be derived from the Section 106 funding associated with the Charlton Hayes development (Filton Northfield) ; see **Appendix 1: North Fringe Context Map** for location. It will directly benefit from the proposals which form the subject of this funding bid.

This contribution has been made in respect of ‘highway improvements’ to support this development. However, the terms of the S106 require the Council to seek authority from the developer to allow the highways contribution to be used for schemes at M5 junction 16 and 17. This agreement has not yet been secured in writing – this will be secured as soon as possible following submission of this Bid.

- b) Where the contribution is from external sources, please provide a letter confirming the body’s commitment to contribute to the cost of the scheme. The Department is unlikely to fund any scheme where significant financial contributions from other sources have not been secured or appear to be at risk.

Have you appended a letter(s) to support this case? Yes No N/A

The Council will seek to secure this letter as soon as practically possible following the submission of this Bid.

- c) The Department may accept the provision of land in the local contribution towards scheme costs. Please provide evidence in the form of a letter from an independent valuer to verify the true market value of the land.

Have you appended a letter to support this case? Yes No N/A

- d) Please list any other funding applications you have made for this scheme or variants thereof and the outcome of these applications, including any reasons for rejection.

Not applicable.

B5. The Financial Case – Affordability and Financial Risk

This section should provide a narrative setting out how you will mitigate any financial risks associated with the scheme (you should refer to the Risk Register / QRA – see Section B11).

Please ensure that in the risk / QRA cost that you have not included any risks associated with ongoing operational costs and have used the P50 value.

Please provide evidence on the following points (where applicable):

- a) What risk allowance has been applied to the project cost?

A risk allowance was established by the QRA which applied the P50 value. An allowance of £602,933 has been made. See QRA attached at **Appendix 8**.

- b) How will cost overruns be dealt with?

The risk budget was established through the QRA, derived from the risk register which included risks associated with increased costs and risks to delivery timescales. This budget will be used for any cost overruns. We understand that the DfT funding will be capped and is only available to March 2015. The local contribution will be used for all funding required after that date.

In the unlikely event there are cost overruns above the risk allowance we understand these will be required to be met by the Council.

- c) What are the main risks to project delivery timescales and what impact this will have on cost?

A full risk register (**Appendix 9**) and risk management strategy (**Appendix 10**) have been undertaken for these two schemes. In summary the following risks and uncertainties that might affect project delivery timescales are:

- Unforeseen traffic problems cause closure of the works delaying delivery of the on-site works.
- Adverse weather delays the completion of the on-site works.
- Delays in securing approvals and/or road space allocation prevents mobilisation for project construction.
- Unexpected objections to these proposals delay the programme.

- Unforeseen utility diversions are required increasing the projects cost and/or delaying its delivery.
- Unexpected design changes required increasing the projects cost and/or delaying its delivery.

A strategy to mitigate these risks has been developed and this is included in the Risk Register (Appendix 9) and the QRA (Appendix 8).

- d) How will cost overruns be shared between non-DfT funding partners (DfT funding will be capped and will not be able to fund any overruns)?

Cost overruns will be managed solely by the Council.

B6. The Economic Case – Value for Money

This section should set out the full range of impacts – both beneficial and adverse – of the scheme. The scope of information requested (and in the supporting annexes) will vary according to whether the application is for a small or large project.

Small project bids (i.e. DfT contribution of less than £5m)

- a) Please provide a description of your assessment of the impact of the scheme to include:

- Significant positive and negative impacts (quantified where possible);
- A description of the key risks and uncertainties;
- A short description of the modelling approach used to forecast the impact of the scheme and the checks that have been undertaken to determine that it is fit-for-purpose.

Scheme Impacts

The junction modifications forming the subject of this bid are designed to mitigate the impact of additional traffic arising from the CPNN upon the operation of M5 Junctions 16 and 17. This will reduce delays at these locations. This is illustrated by the strategic model's forecast impact upon travel times at these locations as shown in the Table below.

Total Vehicle Travelled Time (hrs)	2031 AM		2031 PM	
	No Pinchpoint	With Pinchpoint	No Pinchpoint	With Pinchpoint
M5 Junction 16	561	316	119	115
M5 Junction 17	388	231	517	351

Our assessments indicate, that by materially improving the operational efficiency of these junctions the Council's schemes will not only benefit traffic at these two locations but will also have benefits for other users including pedestrians, cyclists and public transport users.

Risks and uncertainties

A full risk register (**Appendix 9**) and risk management strategy (**Appendix 10**) have been undertaken for these two schemes. In summary the following risks and uncertainties are identified:

- Higher than expected costs arise during the implementation of the scheme. The potential sources of increased cost identified in the Risk Register are associated with civil engineering, inflation Part 1 and environmental mitigation.
- Unforeseen traffic problems cause closure of the works delaying delivery of the on-site works.
- Adverse weather delays the completion of the on-site works.
- Delays in securing approvals and/or road space allocation prevents mobilisation for project construction.
- Unexpected objections to these proposals delay the programme.
- Unforeseen utility diversions are required increasing the projects cost and/or delaying its delivery.
- Unexpected design changes required increasing the projects cost and/or delaying its delivery.

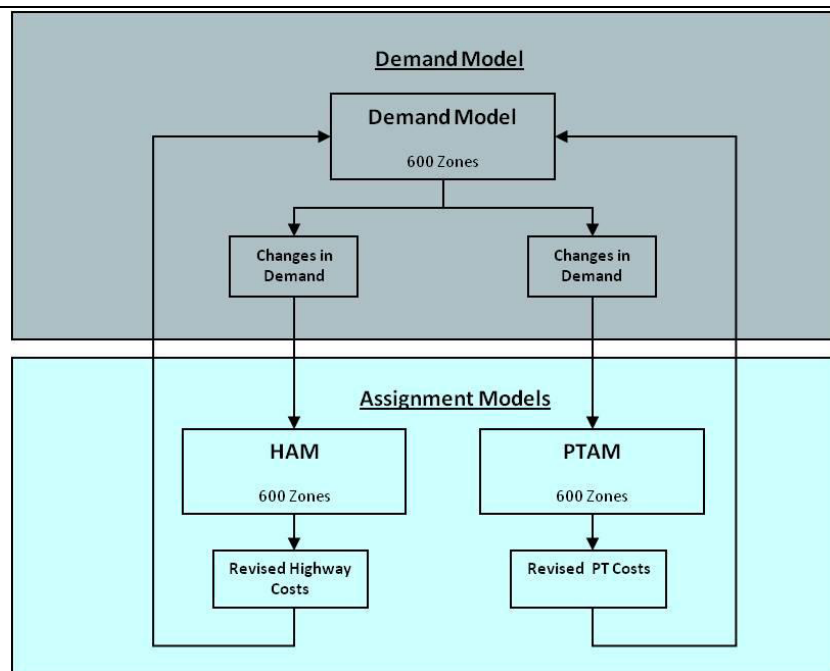
A strategy to mitigate these risks has been developed this is included in the Risk Register (at Appendix 9) and the QRA (at Appendix 8).

Modelling approach

As stated these schemes form part of a larger package of transport measures designed to facilitate the delivery of a wide range of development opportunities which together comprise the Cribbs Patchway New Neighbourhood. Modelling of these schemes was undertaken in a holistic and comprehensive manner. This package was developed and assessed using the Greater Bristol Area Transport Study (GBATS) suite of models.

The GBATS model is fully webTAG compliant and was developed on behalf of the West of England local authorities including South Gloucestershire Council. It was specifically designed to examine strategic transport and development issues in all parts of the greater Bristol area. During this evaluation procedure the model was enhanced, updated and revalidated so that it could accurately assess the impact of the Cribbs Patchway New Neighbourhood.

Full details of the GBATS model and its enhancements can be found in the attached documents listed below. However, in summary it consists of demand and assignment models as shown below. It was used to carry out the testing of a variety of scenarios including that for 2031 where all of the Core Strategy's development proposals are in place as is the complete transport package and has been fully reviewed on behalf of the Highways Agency. In the analysis supporting this bid this scenario has been compared with a similar situation but without the transport package.



This study is fully described in the following documents:

- The South Gloucestershire Core Strategy Local Model Validation Report May 2012 (available on the Council's website at <https://consultations.southglos.gov.uk/gf2.ti/f/251202/7112901.1/PDF/-/RD43%20Local%20Model%20Validation%20Report.pdf>).
- The South Gloucestershire Core Strategy Forecasting Report, May 2012 (available on the Council's website at <https://consultations.southglos.gov.uk/gf2.ti/f/251202/7112997.1/PDF/-/RD44%20Transport%20Forecasting%20Report.pdf>)
- The Cribbs Patchway New Neighbourhood Supplementary Planning Document, Draft Transport Report, February 2013 (attached at **Appendix 11**).

In summary the appraisal adopted to examine the schemes subject to this bid was as follows: 2011 and 2031 AM and PM peak hour assigned traffic flows at M5 Junctions 16 and 17 without and with the Pinchpoint schemes were obtained from the GBATS SATURN Core Strategy Model. These were used in detailed operational assessments to calculate the total vehicle delays for the AM and PM Peaks in both years. Estimates for 2016 (the opening year) were obtained by interpolating between the 2011 and 2031 results.

The LINSIG tests demonstrated that the Pinchpoint schemes would result in significant delay savings at both junctions. The forecast annualised delay savings are shown in the table below.

Year	Junction 16	Junction 17	Comment
2011	-2,700 pcu-hr	-9,900 pcu-hr	Test used to generate base level of savings
2016	-31,900 pcu-hr	-46,200 pcu-hr	Calculated by interpolating between 2011 and 2031
2031	-119,600 pcu-hr	-155,200 pcu-hr	Long term impact taking into account future growth

A series of annualisation factors were then employed to estimate the total delay savings for two 2-hour peak periods on 240 working days per year in both 2016 and 2031. This enabled forecast monetary benefits in these years to be estimated using values of time obtained from WebTAG Unit 3.5.6. The results are shown below.

Year	Junction 16	Junction 17	Comment
2016	£482,000	£698,000	Opening year of scheme
2031	£2,196,000	£2,851,000	Design year for North Fringe highway improvements

The benefits were then frozen at 2031 values to provide a 60-year appraisal period using a 3.50% discount rate over the whole appraisal period. Finally, these values were used to generate a stream of discounted benefits and to calculate the Present Value of Benefits (PVBs). The resulting PVB estimates are as follows

Junction 16: £36.6 million
 Junction 17: £47.9 million
Total: £84.5 million

It is recognised that the forecasts of benefits are strongly influenced by the large annual delay savings that were forecast for 2031. Thus the CSM outputs indicate that there will be high levels of congestion in 2031 and that modest junction improvements have the potential to significantly improve future operating conditions.

Consequently, a further test was undertaken which assumed that future reductions in delay would be 'frozen' at 2016 levels. In 2016, it is estimated that there will be substantial growth from the 2011 baseline, with increased traffic resulting from new development in the Cribbs/Patchway area. Using these more conservative assumptions, the resulting PVBs would be as follows:

Junction 16: £11.7 million
 Junction 17: £17.0 million
Total: £28.7 million

* Small projects bids are not required to produce a Benefit Cost Ratio (BCR) but may want to include this here if they have estimated this.

b) Small project bidders should provide the following as annexes as supporting material:

- A completed [Scheme Impacts Pro Forma](#) which summarises the impact of proposals against a number of metrics relevant to the scheme objectives. It is important that bidders complete as much of this table as possible as this will be used by DfT – along with other centrally sourced data – to form an estimate of the BCR of the scheme. Not all sections of the pro forma are relevant for all types of scheme (this is indicated in the pro forma).
- A description of the sources of data and forecasts used to complete the Scheme Impacts Pro Forma. This should include descriptions of the checks that have been undertaken to verify the accuracy of data or forecasts relied upon. Further details on the minimum supporting information required are presented against each entry within the pro forma.

Has a Scheme Impacts Pro Forma been appended? Yes No N/A

A completed Scheme Impacts Proforma is contained in **Appendices 12a and 12b.**

Appendix 12a - Scheme Impacts Proforma for M5 Junction 16.

Appendix 12b - Scheme Impacts Proforma for M5 Junction 17.

Has a description of data sources / forecasts been appended? Yes No N/A

See **Appendix 11.**

- A completed [Appraisal Summary Table](#). Bidders are required to provide their assessment of all the impacts included within the table and highlight any significant Social or Distributional Impacts (SDIs). Quantitative and monetary estimates should be provided where available but are not mandatory. The level of detail provided in the table should be proportionate to the scale of expected impact with particular emphasis placed on the assessment of carbon, air quality, bus usage, sustainable modes, accessibility and road safety. The source of evidence used to assess impacts should be clearly stated within the table and (where appropriate) further details on the methods or data used to inform the assessment should be attached as notes to the table.

Has an Appraisal Summary Table been appended? Yes No N/A

A completed Appraisal Summary Table is contained in **Appendix 13**.

- Other material supporting the assessment of the scheme described in this section should be appended to your bid.

Further details of the studies supporting these schemes are contained in the following documents appended to this report:

- The South Gloucestershire Core Strategy Local Model Validation Report May 2012 (available on the Council's website at <https://consultations.southglos.gov.uk/gf2.ti/f/251202/7112901.1/PDF/-/RD43%20Local%20Model%20Validation%20Report.pdf>).
- The South Gloucestershire Core Strategy Forecasting Report, May 2012 (available on the Council's website at <https://consultations.southglos.gov.uk/gf2.ti/f/251202/7112997.1/PDF/-/RD44%20Transport%20Forecasting%20Report.pdf>)
- The Cribbs Patchway New Neighbourhood Supplementary Planning Document, Draft Transport Report, February 2013 (attached at **Appendix 11**).

** This list is not necessarily exhaustive and it is the responsibility of bidders to provide sufficient information to demonstrate the analysis supporting the economic case is fit-for-purpose.*

Large project bids (i.e. DfT contribution of more than £5m)

- c) Please provide a short description of your assessment of the value for money of the scheme including your estimate of the BCR. This should include:
- Significant monetised and non-monetised costs and benefits;
 - A description of the key risks and uncertainties and the impact these have on the BCR;
 - Key assumptions including (but not limited to): appraisal period, forecast years, level of optimism bias applied; and
 - A description of the modelling approach used to forecast the impact of the scheme and the checks that have been undertaken to determine that it is fit-for-purpose.

Not applicable.

- d) Detailed evidence supporting your assessment – including a completed [Appraisal Summary Table](#) – should be attached as annexes to this bid. **A checklist of material to be submitted in support of large project bids has been provided.**

Has an Appraisal Summary Table been appended? Yes No N/A

- Please append any additional supporting information (as set out in the [Checklist](#)).

**It is the responsibility of bidders to provide sufficient information for DfT to undertake a full review of the analysis.*

B7. The Commercial Case

This section should set out the procurement strategy that will be used to select a contractor and, importantly for this fund, set out the timescales involved in the procurement process to show that delivery can proceed quickly.

a) Please provide evidence to show the risk allocation and transfer between the promoter and contractor, contract timescales and implementation timescales (this can be cross-referenced to your Risk Management Strategy).

No risk transfer as it is proposed to deliver the schemes using the Council's in-house workforce supported by the Council's highway works supply chain frameworks.

b) What is the preferred procurement route for the scheme and how and why was this identified as the preferred procurement route? For example, if it is proposed to use existing framework agreements or contracts, the contract must be appropriate in terms of scale and scope.

The value of the schemes is under the OJEU threshold for capital schemes. Therefore an OJEU notice is not required. Existing contracts are in place and capability already exists within South Gloucestershire Council to deliver the schemes.

The intention is to use the in-house South Gloucestershire Council workforce and Supply Chain framework contracts to deliver these schemes.

The Supply Chain contracts were procured through restricted OJEU procedure in 2010 and will run until at least 2015. As these framework contracts were procured through a competitive process they have demonstrated value for money.

The scheme value of £2.4m represents less than 15% of estimated Supply Chain Framework contract spend and is in the range for contract size undertaken by the Council. Schemes have already been successfully completed for similar highway layout construction works as part of the Greater Bristol Bus Network Major Scheme at Coldharbour Lane and A4174 Avon Ring Road (Coldharbour Lane to M32).

c) A procurement strategy will not need to form part of the bid documentation submitted to DfT. Instead, the Department will require the bid to include a joint letter from the local authority's Section 151 Officer and Head of Procurement confirming that a strategy is in place that is legally compliant and is likely to achieve the best value for money outcome.

Has a joint letter been appended to your bid? Yes No NA - A procurement strategy is not needed because the Council's existing in-house workforce and supply chain will deliver the schemes.

The Council's S151 officer is also head of Procurement and in signing this Bid he confirms the commercial case set out above.

**It is the promoting authority's responsibility to decide whether or not their scheme proposal is lawful; and the extent of any new legal powers that need to be sought. Scheme promoters should ensure that any project complies with the Public Contracts Regulations as well as European Union State Aid rules, and should be prepared to provide the Department with confirmation of this, if required.*

B8. Management Case - Delivery

Deliverability is one of the essential criteria for this Fund and as such any bid should set out any necessary statutory procedures that are needed before it can be constructed.

- a) A detailed project plan (typically in Gantt chart form) with milestones should be included, covering the period from submission of the bid to scheme completion. The definition of the key milestones should be clear and explained. The critical path should be identifiable and any key dependencies (internal or external) should be explained. Resource requirements, task durations, contingency and float should be detailed and easily identifiable. Dependencies and interfaces should be clearly outlined and plans for management detailed.

Has a project plan been appended to your bid? Yes No

A Project Plan is attached at **Appendix 14**.

- b) If delivery of the project is dependent on land acquisition, please include a letter from the respective land owner(s) to demonstrate that arrangements are in place in order to secure the land to enable the authority to meet its construction milestones.

Has a letter relating to land acquisition been appended? Yes No N/A

The land required to deliver this scheme is entirely within the ownership of South Gloucestershire Council or the Highway Agency. Hence, no land acquisition is required for the scheme. However, please see additional letter from the Highways Agency in this respect (see **Appendix 6**):

- c) Please provide summary details of your construction milestones (at least one but no more than 5 or 6) between start and completion of works:

The following construction milestones have been identified:

- **Mobilise** – Commence mobilisation of construction workforce, order materials etc.
- **Site clearance & earthworks** - Commence work on clearing the site and undertaking earthworks.
- **Drainage & foundations** - Commence work on the drainage and pavement foundations.
- **Pavement & kerbing** - Commence work on the pavement and kerbing.
- **Traffic signs & road markings** - Commence work on the traffic signs and road markings.
- **Street lighting & signals** - Commence work on the street lighting and signals
- **Completion** – Completion of construction.

Each of these items is included in the project plan attached as **Appendix 14**. This programme embraces the moratorium on construction works at M5 Junction 17 in the retail peak period before Christmas (December).

Table C: Construction milestones

Estimated Date

Start of works

Nov 2013

Mobilise

Nov 2013

Site Clearance and earthworks

Feb 2014

Drainage and foundations

Mar2014

Pavements and kerbing

Jun 2014

Traffic signs and road markings

Sept 2014

Traffic signals and street lighting

Sept 2014

Opening date

Jan 2015

Completion of works (if different)

na

- d) Please list any major transport schemes costing over £5m in the last 5 years which the authority has delivered, including details of whether these were completed to time and budget (and if not, whether there were any mitigating circumstances)

South Gloucestershire Council implemented the Greater Bristol Bus Network (GBBN) major scheme jointly with Bristol City Council. The South Gloucestershire Council element of DfT funding was £18.1m, and £24.7m in total. GBBN was delivered to time and budget.

B9. Management Case – Statutory Powers and Consents

- a) Please list separately each power / consents etc obtained, details of date acquired, challenge period (if applicable) and date of expiry of powers and conditions attached to them. Any key dates should be referenced in your project plan.

It is not necessary to secure powers or consents to deliver these proposals. It will however be necessary to reach agreement with the Highways Agency to allow these proposals to go ahead. As can be seen from the letter attached at **Appendix 6**, we have already commenced this process and have been in liaison with the Agency about these matters.

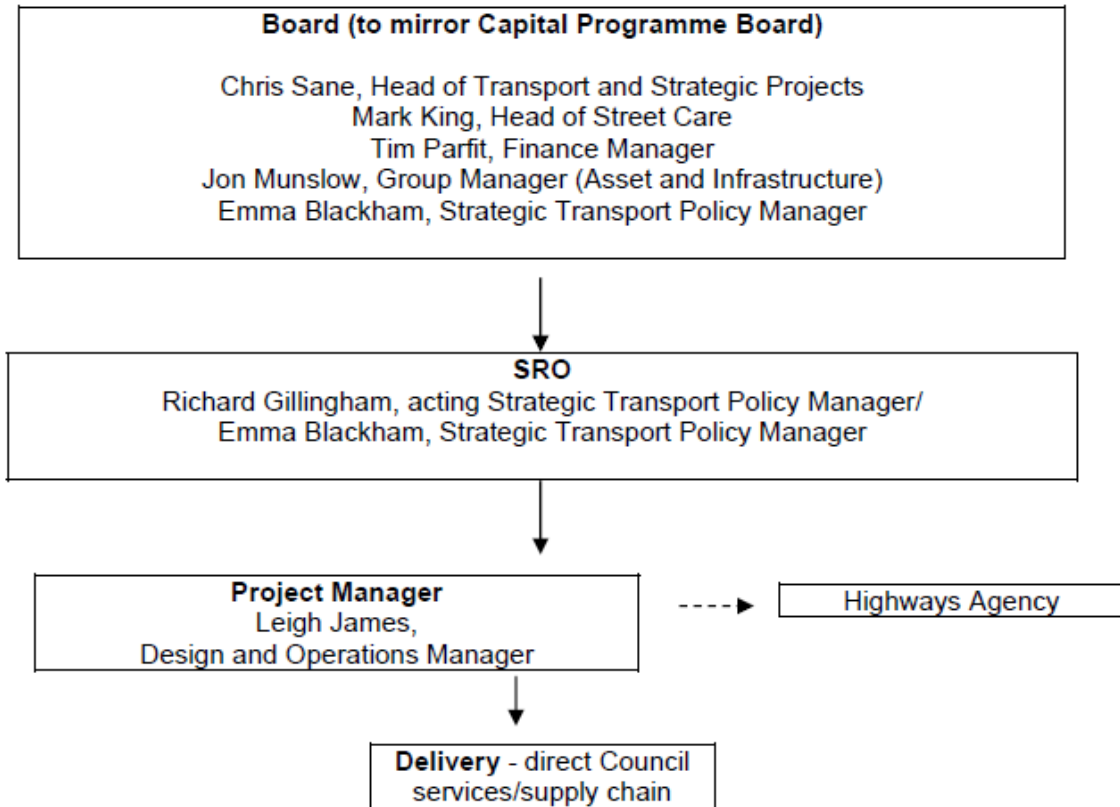
- b) Please list separately any outstanding statutory powers / consents etc, including the timetable for obtaining them.

Not applicable.

B10. Management Case – Governance

Please name who is responsible for delivering the scheme, the roles (Project Manager, SRO etc.) and responsibilities of those involved, and how key decisions are/will be made. An organogram may be useful here. Details around the organisation of the project including Board accountabilities, contract management arrangements, tolerances, and decision making authorities should be clearly documented and fully agreed.

The project management arrangements for the schemes at M5 Junction 16 and 17 will mirror arrangements already in place to manage the Council's LTP capital programme. The Governance structure is set out in the chart below:



The project manager will report progress to the SRO who will report exceptions on financial and scope change (with a variation of 10%) to the Project Board (which will meet on a quarterly basis at the same time as the Capital Programme Board). An exceptional meeting of the Project Board will be called if the project manager identifies a significant matter to the SRO which requires authority from the Board. The project will be managed by the project manager through the Council's PRIME project management system (which is similar to PRINCE 2).

B11. Management Case - Risk Management

All schemes will be expected to undertake a thorough Quantified Risk Assessment (QRA) and a detailed risk register should be included in the bid. The QRA should be proportionate to the nature and complexity of the scheme. A Risk Management Strategy should be developed and should outline on how risks will be managed.

Please ensure that in the risk / QRA cost that you have not included any risks associated with ongoing operational costs and have used the P50 value.

Has a QRA been appended to your bid? Yes No

Has a Risk Management Strategy been appended to your bid? Yes No

A QRA is attached at **Appendix 8**.

A Risk Register and Risk Management Strategy are attached at **Appendices 9 and 10**.

B12. Management Case - Stakeholder Management -

The bid should demonstrate that the key stakeholders and their interests have been identified and considered as appropriate. These could include other local authorities, the Highways Agency, statutory consultees, landowners, transport operators, local residents, utilities companies etc. This is particularly important in respect of any bids related to structures that may require support of Network Rail and, possibly, train operating company(ies).

- a) Please provide a summary of your strategy for managing stakeholders, with details of the key stakeholders together with a brief analysis of their influences and interests.

As noted this scheme forms part of a package of transport measures to support the development of the Cribbs Patchway New Neighbourhood for residential, commercial and retail purposes. This development is included in the Council's emerging Core Strategy which was subject to an Examination in Public in June 2012.

In the run up to the Examination in Public a wide range of consultation exercises were carried out. Particular emphasis was placed on engaging the stakeholders with interests in Bristol's North Fringe. This included the stakeholders with interests linked to the Cribbs Patchway New Neighbourhood (CPNN) where Steering Groups were set up to oversee and manage planning and transport matters. During this process the stakeholders broadly approved the concept and contents of the CPNN Transport Package.

These Steering Groups remain in place and have continued to provide the Council with guidance related to these transport and development proposals. It is intended that they will also advise on the Pinchpoint schemes.

The schemes will also be subject to South Gloucestershire Council's Consultation Procedure. This will be carried out in accordance with the Council's 'Consultation Framework'. A 'Statement of Reasons' supplemented by drawings will be prepared and various Stakeholders including Local Members, Parish and Town Councils, Emergency Services, The Cycle Forum, Local Transport Operators, Road Haulage Organisations and other significant interested parties are invited via email to comment. The General Public will also be engaged via road signs and advising interested parties Council's of the online consultation diary. A letter drop to affected residents and commercial organisations will also be undertaken.

- b) Can the scheme be considered as controversial in any way? Yes No
If yes, please provide a brief summary (in no more than 100 words)

- c) Have there been any external campaigns either supporting or opposing the scheme?
 Yes No

If yes, please provide a brief summary (in no more than 100 words)

- d) For large schemes please also provide a Stakeholder Analysis and append this to your application.

Has a Stakeholder Analysis been appended? Yes No N/A

e) For large schemes please provide a Communications Plan with details of the level of engagement required (depending on their interests and influence), and a description of how and by what means they will be engaged with.

Has a Communications Plan been appended? Yes No N/A

B13. Management Case - Assurance

We will require Section 151 Officer confirmation (Section D) that adequate assurance systems are in place.

For large schemes please provide evidence of an integrated assurance and approval plan. This should include details around planned health checks or gateway reviews.

Not applicable.

SECTION C – Monitoring, Evaluation and Benefits Realisation

C1. Benefits Realisation

Please provide details on the profile and baseline benefits and their ownership. This should be proportionate to the size of the proposed scheme.

The schemes which are the subject of this bid are small in scale and therefore the benefits accruing to the users of these junctions can only be measured in a limited number of ways. These benefits will manifest themselves as reductions in traffic queues and therefore the journey times of vehicles travelling through these junctions. As these network enhancements are designed to facilitate development of the CPNN, the full value of these benefits will not be accrued until after this development is complete. This will not take place until after 2026.

The forecasts underlying this bid have measured these benefits by examining the change in journey time after completion of the CPNN development. These forecasts are as follows:

Total Vehicle Travelled Time (hrs)	2031 AM		2031 PM	
	No Pinchpoint	With Pinchpoint	No Pinchpoint	With Pinchpoint
M5 Junction 16	561	316	119	115
M5 Junction 17	388	231	517	351

These reductions in journey time are forecast to lead to these schemes accruing the following benefits:

Junction 16: £36.6 million
 Junction 17: £47.9 million
Total: £84.5 million

It is recognised that these forecasts are strongly influenced by the large annual delay savings that were forecast for 2031 where modelling indicates that there will be high levels of congestion in 2031 and that modest junction improvements have significant potential improve future operating conditions.

Consequently, a further test was undertaken in which it was assumed that future reductions in delay would be 'frozen' at 2016 levels and using these more conservative assumptions, the resulting PVBs would be as follows:

Junction 16:	£11.7 million
Junction 17:	£17.0 million
Total:	£28.7 million

C2. Monitoring and Evaluation

Evaluation is an essential part of scheme development and should be considered and built into the planning of a scheme from the earliest stages. Evaluating the outcomes and impacts of schemes is important to show if a scheme has been successful.

Please set out how you plan to measure and report on the benefits identified in Section C1, alongside any other outcomes and impacts of the scheme

As noted in Section C1, a full examination of the operational efficiency of the schemes proposed in this bid has been undertaken and forecasts produced for the 'with' and 'without' works scenarios. Given the small scale of the works undertaken under this bid, it is proposed to carry out an appropriate level of monitoring for these schemes. Moreover, the full effect of these schemes will not become available until after 2026. In the meantime, it will be of value to examine the interim results of these works.

Therefore it is proposed that once these schemes have been fully implemented the traffic flows and queues at M5 Junctions 15 and 16 will be recounted. This will enable the Senior Responsible Officer to revise the economic case and review the success of these proposals.

This programme would be as follows:

- Undertake traffic and queue surveys – 3 months after opening of scheme (March 2015).
- Review and report on scheme outcomes – Within 2 months of completion of survey.

A fuller evaluation for large schemes may also be required depending on their size and type.

SECTION D: Declarations

D1. Senior Responsible Owner Declaration


As Senior Responsible Owner for **M5 Junctions 16 and 17 Local Road Improvements** I hereby submit this request for approval to DfT on behalf of South Gloucestershire Council and confirm that I have the necessary authority to do so.

I confirm that South Gloucestershire Council will have all the necessary statutory powers in place to ensure the planned timescales in the application can be realised.

Name: **Richard Gillingham**

Signed:

Position: Strategic Transport Policy Manager	
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D2. Section 151 Officer Declaration	
<p>As Section 151 Officer for South Gloucestershire Council I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that South Gloucestershire Council:</p> <ul style="list-style-type: none"> - has allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution - accepts responsibility for meeting any costs over and above the DfT contribution requested, including potential cost overruns and (subject to written confirmation from the Charlton Hayes developer) the underwriting of any funding contributions expected from third parties - accepts responsibility for meeting any ongoing revenue requirements in relation to the scheme - accepts that no further increase in DfT funding will be considered beyond the maximum contribution requested and that no DfT funding will be provided after 2014/15 - confirms that the authority has the necessary governance / assurance arrangements in place and, for smaller scheme bids, the authority can provide, if required, evidence of a stakeholder analysis and communications plan in place 	
<p>Name:</p> <p>Zulfiqar Darr</p>	<p>Signed:</p> 

<p>Submission of bids:</p> <p>For both small bids and large bids the deadline is 5pm, 21 February 2013</p> <p>One hard copy and a CD version of each bid and supporting material should be submitted to:</p> <p>Steve Berry Local Transport Funding, Growth & Delivery Division Department for Transport Great Minster House 33 Horseferry Road London SW1P 4DR</p>

An electronic copy should also be submitted to steve.berry@dft.gsi.gov.uk