

# Gloucestershire Local Transport Board (GLTB)

## Scheme Assessment Proforma

### INTRODUCTION

This proforma must be completed by all promoters with eligible schemes. The information included within the proforma will be used by the Gloucestershire Local Transport Board (GLTB) to score and prioritise schemes.

Please refer to the attached summary guidance and if you have any questions, please do not hesitate to contact: James Llewellyn ([james.llewellyn@atkinsglobal.com](mailto:james.llewellyn@atkinsglobal.com)). In the interests of fairness and transparency, any answers to general questions may be shared with all scheme promoters. Please indicate if you do not feel this sharing would be appropriate.

The text in grey asks you to provide information / evidence and also provides guidance on the type of evidence that we are looking for. The appendices at the end of the document provide links to further information that may be of use for the scheme evidence base.

### BACKGROUND INFORMATION

<b>B1. Scheme name:</b>	Lydney Transport Strategy
-------------------------	---------------------------

<b>B2. Headline description:</b>	<p>The scheme involves highway and public realm improvements in the town centre, comprising:</p> <ul style="list-style-type: none"> <li>Newerne Link, including mini-roundabouts with Forest Road and Albert Road;</li> <li>Forest Road junction improvement and pedestrian crossing;</li> <li>Bream Road junction improvement – new traffic signals;</li> <li>Albert Street junction improvement – new traffic signals;</li> <li>Cycle route from the town centre to the major existing employment areas (located south of the town centre and south of the mainline station) and Lydney mainline station;</li> <li>Lydney rail station car park improvement.</li> </ul> <p>The scheme will provide better accessibility to and within the centre, enabling environmental improvements and the removal of through traffic from the main shopping frontage. It will relieve problems at particular locations and result in improved air quality. It will enable town centre redevelopment in a manner which will improve the retail offer and the public realm.</p> <p>The proposal will provide better pedestrian and cycling access to the mainline station as well as providing additional parking there. The proposed routes will link to other existing and proposed routes to become a network. Better access to the mainline railway station will lead to increased use, and better access to the employment areas and the harbour will allow work and leisure trips by cycling/ walking to increase.</p> <p>See scheme plans in ‘SD.26078.40.201 Rev B’ (highway elements) and ‘SD.26078.40.202 Rev A’ (cycle route alignment), and also context plan.</p>
<b>Has a plan of the scheme been attached?</b>	Yes

<b>B3. Scheme location:</b>	<p>This is a package scheme located in Lydney Town Centre and land between the town centre and Lydney mainline railway station.</p> <p>More precisely the various elements are in the following locations:</p> <ul style="list-style-type: none"> <li>Newerne Link – linking Albert Street with the B4234 Forest Road, located to the north of Newerne Street</li> <li>The junction improvements relate to the B4231 Hill Street-Newerne Street-Highfield Road route:</li> </ul>
-----------------------------	--

	<ul style="list-style-type: none"> <li>○ Forest Road junction - Forest Road/Hill Street;</li> <li>○ Bream Road junction - Bream Road/Hill Street;</li> <li>○ Albert Road junction - Albert Street/Highfield Road.</li> </ul> <ul style="list-style-type: none"> <li>• The cycle link – A route segregated from traffic where possible running from Swan Road south to the mainline railway station using the existing footpath/ cycle route and existing crossings of the River Lyd and the Dean Forest Railway.</li> <li>• Lydney mainline rail station is located 1.5km to the south of Lydney town centre.</li> </ul> <p>The scheme location within Lydney is shown on the inset maps of drawings 'SD.26078.40.201 Rev B' and 'SD.26078.40.202 Rev A'.</p>
<b>Has a map of the scheme location been provided?</b>	Yes

<b>B4. Scheme history:</b>	<p><u>Town centre highway strategy</u>  The town centre element originated from the Lydney Highway Strategy conceived in the 1980s, and has been shown safeguarded on a Local Plan since the Lydney Local Plan draft of 1987. At the time it comprised the bypass (completed 1995), a link to Harbour Road (a reduced version now completed) and the town centre elements which have not been implemented. These include a link road to the bypass which is not considered necessary or appropriate (but is retained in LTP3 appendix 2 as a cycle/ walking link- scheme 903), the improvement of the Bream Road junction with High Street and the Newerne Link and its associated parts. The latter enables part of the main thoroughfare to be bypassed and the Bream Road scheme addresses known problems on the junction of an important north south route with the main street.</p> <p>Previously completed design work, including a 2010 review and rationalisation of the town centre highway plans form the basis for this bid. See S5 for further information.</p> <p>The scheme evolved because of the need to address environmental problems in Lydney that could not be solved by the outer bypass alone. This in part stems from the need to provide for a secondary lorry route (Bream Road) and two other routes into the Forest (Forest Road and Albert Street). It will enable major improvements to the town centre which will assist its regeneration and improve the air quality.</p> <p><u>Accessibility for walkers and cyclists</u>  Although highway schemes have been proposed that in part address the long recognised issue of accessibility from one part of Lydney to another, there is a better opportunity to enable cycling and walking connections (many of which already exist) to be improved to the point where they become important parts of the transport network. As a result and in recognition of the need to maximise other forms of travel (see Halcrow Study, 1999) additional development of cycle and walking links is required. They will complement the town centre highway improvements making the centre more accessible.</p>
----------------------------	--

**PART ONE - STRATEGIC CASE**

Promoters should demonstrate **why the scheme is needed** by setting out the rationale for making the investment and evidence on the strategic fit of the proposal, particularly in the context of the four overarching LTP Goals:

- *A greener, healthier Gloucestershire – covering carbon emissions, local environment, and physical activity.*
- *Sustainable economic growth – covering transport user benefits (connectivity and reliability), resilience of the strategic network, delivery of housing, wider economic benefits and regeneration.*
- *A safer, securer transport system – covering injuries or deaths, crime, and terrorism.*
- *Good access to services – Access to goods, services, people and places; severance; social and distributional impacts including accessibility, affordability, availability, acceptability for vulnerable groups, e.g. low income, disabled, the elderly, etc.*

and the following LEP objective for connectivity:

- *Integrated and improved transport infrastructure.*

Objectives of other plans – in particular the relevant Local Development Framework – should also be referred to. Appendix A provides details of a range of policy documents.

**S1. Intended outcomes**

<b>a) Please describe the three most important outcomes or objectives which the scheme is seeking to deliver?</b>	
Outcome 1	Better accessibility: <ul style="list-style-type: none"> <li>• within and to the town centre,</li> <li>• between the main residential and employment areas of the town; and</li> <li>• to the mainline station</li> </ul>
Outcome 2	Improved environment for the public and business
Outcome 3	Improved air quality in Lydney town centre

**S2. Significance of problem and scale of improvement**

*In addressing this question promoters should draw on relevant evidence and metrics presented for the Economic Case assessment.*

<b>a) What is the nature of the problem / opportunity that the scheme is trying to address, and what are the underlying causes?</b>
<p>Problems have been identified for a long time (see B4) and continue to exist (see immediately below). In addition to the poor accessibility, the air quality in the centre is now sufficiently poor to require the designated Air Quality Management Area (AQMA), and this has already attracted £44000 of DEFRA funding in order to further monitor and examine the issues.</p> <p>Although much of the town is level and it is relatively compact, access from one part to another is constrained, and the potential for cycling and walking is not fully realised. This could limit the use of the railway station where parking is a problem, as well as adding to peak time congestion, such as is experienced on Bream Road at school travel times. The new East of Lydney neighbourhood will provide some linkages and make some contribution but these will only be used to their best advantage if related accessibility improvements are made in the remainder of the town.</p> <p>The Forest of Dean has the highest adult obesity rates in the county (health profiles 2012), and a high incidence of coronary heart disease. Childhood obesity is also high. These can in part be addressed by providing and encouraging the use of safe walking and cycling routes.</p> <p>The environment especially in the centre is degraded by through traffic and the ability to develop the centre to its best advantage is frustrated. The need to cater for through traffic (eg lorries from the Forest wishing to travel to Gloucester or South Wales), provide for local travel and encourage optimum use of the bypass means that the certain unimplemented elements of the highway strategy are necessary and desirable.</p>

<b>b) How does the problem / opportunity impact on the delivery of the LTP3 goals and the LEP</b>
---

**objective for connectivity?**

The Forest of Dean Area Strategy (part of LTP3) objectives are all addressed by the scheme, which provides necessary infrastructure in support of the local (and wider) economy in an area where much of the planned growth (as identified in an approved Core Strategy) is intended to take place. It encourages more sustainable means of travel (cycling and walking), and better access to the railway station, and in doing so improves access to services and jobs in a manner accessible to all. It will result in a more robust network. Air quality will be improved and the harmful impacts of traffic in the primary shopping area will be removed.

LTP3 contains an aim to provide park and ride at Lydney (1.19) and in identifying the need for extra parking and the lack of bus/ taxi/ cycle connections commits to working to make improvements in the short term 2011-2014 (11.22, p 100). It also seeks to improve train services. (8.5, 8.8, 8.19).

The LTP recognises the potential congestion that may arise from new development planned at Lydney (10.23), hence its commitment to implement the "Lydney Highway Strategy" (10.24). This is split between early (2011-14) and later phases of the LTP (p101,103, which identifies phase2 for 2014-19 and phase3 post 2019). The schemes are however indicated as developer or third party funded and despite the recognised need and the agreed S106 monies (even if they are sustained at the present agreed levels), additional contributions will be essential.

Improved walking and cycling links are acknowledged aims of the area strategy.

The LEP, Activity Plan (p11) promotes transport investment for business needs and has already delivered in the form of a loan (GIIF) to Robert Hitchins to enable a site at Lydney to be developed. This is the largest part of the East of Lydney development and it is a mixed strategic development. Its S 106 contributions to the Lydney Highway Strategy and items such as the improvement to the station illustrate the direct relationship between the development and the need for these improvements. They also highlight the fact that the developer contributions are likely to be available in parallel with the LTB funding which is being sought.

**c) What impact will the scheme have on the Primary Route Network, other A roads, key public transport routes, and other strategic routes?**

The Bream Road junction addresses a known problem on a road identified on the freight route map as a preferred route for local distance journeys. Forest Road and part of the existing town centre route are also identified and will be improved by the scheme. These routes are part of the primary north south links within the southern part of the Forest of Dean.

**d) What impact will the scheme have on transport-related barriers to economic activity and transport-related carbon emissions?**

**The main transport related barriers to investment** in Lydney are perceived accessibility and congestion together with the poor environmental quality of some areas which are adversely affected by traffic.

Town centre investment and confidence

The scheme is intended to improve the environment in Lydney and ensure that it functions in a more sustainable manner. Congestion and an unattractive environment are key detractors from the quality of the centre and hinder or deter investment. The improvements to the centre will enable new developments to take advantage of a safer, cleaner and more attractive environment; this, supported by the major "East of Lydney" development which will bring new population and therefore customers for the business and users of services to the town.

Accessibility to the centre will be improved, however 'through' traffic will not be encouraged by the planned layout.

Environment for investment- the planned investment will in itself encourage further activity and will remove any uncertainties that have existed due to the long term safeguarding for the road schemes. This safeguarding is based on the original much more extensive schemes which would have adversely affected many more properties than the current (bid) scheme.

Improved access to the rail station will increase usage for both journeys to work and for leisure. Potentially this could include journeys to work in Lydney, as well as out-commuting. Improved links to the Dean Forest railway will also be established together with additional safe parking and cycle provision.

Access to the harbour and other areas will be improved and this will encourage greater use and cycle/ walking- from the station, a segregated cycle route along the harbour already exists. Walking access to Naas

Lane and thence to the new East of Lydney development is available from the Harbour.

Access to employment areas - easier safer access to these areas will be provided via the routes to the station, Mead Lane and Harbour Road are readily accessible.

The main way in which the scheme addresses **carbon emissions** is through the establishment of a better route to the mainline station and the additional parking there. The patronage of the station is growing and has increased very considerably in past years (see below, S2(g)). One major factor in this increase has been the improvement of the facilities at the station, including parking, though the existing provision is now at or beyond capacity.

#### Overall

This package of highway and cycling improvements together will raise the perception of the town, and simple changes such as well signposted and accessible cycle routes will encourage greater use of what's there at present; new routes will meet present and future needs.

There is some considerable uncertainty due to the proposed town centre scheme having been designed many years ago but not implemented. Some of its route may affect existing property but a great deal more is adversely affected by uncertainty of not knowing what may be affected and when. This can deter investment.

#### **e) What are the consequences of not delivering the scheme?**

- Increased town centre congestion and poorer safety especially for pedestrians.
- Town centre environment cannot improve without the scheme, resulting in lower investment potential.
- Air quality in the town centre likely to remain over AQMA thresholds due to severe limitations on actions that could improve air quality.
- Inability to develop town centre in accord with plans (see Core Strategy).
- Continued poor and uncertain environment for business investment.
- Poor access to employment areas, school and station for walkers and cyclists.
- Less use of station (lack of parking, cycle facilities and pedestrian/ cycle access).
- Continued over- subscribed station parking.
- Less use of recreation areas (e.g. the harbour).
- An opportunity to address health issues by making safer alternative provision for walking/ cycling will be missed

#### **f) How will the scheme deliver the outcomes identified in S1 and what is the scale of improvement expected?**

##### **Outcome 1 - Better accessibility within and to the centre and between areas of the town**

The highway improvements, by removing through traffic, will provide better access to the centre for vehicles and facilitate easier access to the existing "main street" for walkers and cyclists. Improved access to and from the main employment area, the station and other areas close by, will be provided by the planned or enhanced cycle and walking routes.

##### **Outcome 2 - Improved environment for public and business in the town centre**

The quality of the town centre is adversely affected by the nature of the existing through route. There are narrow pavements in some areas and a variety of surfaces. The roadway generally is narrow and of variable quality and carries all types of traffic. It also has to accommodate some servicing of premises, The removal of through traffic from part of Newerne Street will enable a revised carriageway and additional pedestrian space. This will support the redevelopment of key sites which are to be allocated in the development plan. The section of Newerne Street which will be bypassed includes the entire primary shopping frontage and the largest key development site.

##### **Outcome 3 - Improved air quality in Lydney town centre**

In conjunction with the statutory duties of the Local Authority, an Action Plan must be produced to provide options for improving the air quality within the designated AQMA in Lydney Town Centre. The amount of traffic and excessive static traffic at peak times results in elevated NO<sub>2</sub> concentrations. The scheme will allow better management of traffic in the centre of the town and with the provision of the Newerne Link through traffic will be taken from much of the AQMA. The reduction in traffic will reduce vehicle emissions and lead to improvements in air quality.

The improved facilities for cycling and walking will also help in reducing the use of vehicles as will any enhanced use of the station because of better facilities.

Furthermore, improved signage may also help with congestion and vehicle emissions.

As a consequence of better management of traffic and the provision of the Newerne Link itself, through traffic will be taken from much of the AQMA, and this reduction in traffic will reduce overall emissions and lead to improvements in air quality.

The redesigned junction at Bream Road will itself improve air quality by the reduction of queuing on Bream Road, and it will also benefit from the reduced amount of through traffic.

The improved facilities for cycling and walking will also help in reducing the use of vehicles and any increased use of the railway station will reduce car use for commuting and other journeys.

**g) Please describe the people, areas and journeys (type and approximate number) that will benefit from the above outcomes?**

Newerne Street carries 12492 vehicles (AADT) per day (both directions), and approximately 1030/1270 vehicles in each of the AM / PM peak hours respectively(*Source: GCC ATC data, 2012*).

The scheme will benefit the following users, areas and journeys:

- Users:
  - Town centre businesses- improved environment and additional space
  - Town centre users- residents and visitors- improved environment and better facilities- The highest pedestrian flows in the town are in Newerne street.
  - Employees in employment areas (eg Harbour Road)- easier access to workplace.
  - Rail users safer and better vehicle and cycle parking at the station. Lydney mainline station is seeing its usage increase year on year from about 60000 entries and exits in 1997/98 to 84000 in 2006/7 to over 156000 in 2011/12. ( <http://www.rail-reg.gov.uk/server/show/nav.1529>).
- Areas- Lydney existing residential areas, new neighbourhood, town centre, employment area, secondary school, rail station.
- Journeys- trips to the centre, station, employment areas both vehicle and walking/ cycling.

Note: current usage of the station is very similar to Cam and Dursley and about twice that at Ashchurch

**h) To what extent will the scheme address the problems identified?**

The schemes address all of the problems identified and will provide solutions in connection with other measures. In some cases the highway/ transport schemes unlock the potential for other developments (town centre retail and public realm), in others they provide a major part of the solution (AQMA) or help unlock known constraints (lack of train patronage partly due to poor access/ parking at the station).

One example is that the scheme will enable the implementation of plans for the development of key sites in the town centre which will help regenerate the town. Without the scheme however the ability to develop these key sites in the manner envisaged is severely restricted. The creation of safe circulation space and an area for public "assembly" may not be possible. Initiatives such as street markets would not be able to take place. In many ways the transport scheme unlocks the potential of the major part of the town centre.

The AQMA issue will be partially addressed through the schemes proposed, but without them there is little or no prospect of reducing town centre congestion and providing junction improvements. Transport improvements provide the most effective way of reducing emissions but will be incorporated alongside other measures including public transport improvements, emission reduction measures (walking/cycling schemes) and other measures (e.g. raising awareness and business involvement).

There have been pedestrian and cycle routes in Lydney for a number of years but unless or until these are improved, in some cases with simple measures, they will not function in terms of being routes of choice. It is similarly unlikely that patronage of the station will increase greatly without additional parking, cycle storage and safe routes to it from the centre and from the East of Lydney new neighbourhood.

Underlying the actual problems is one of perception that there are problems, and the related issue of uncertainty because land is safeguarded without implementation. This has been the case for many years in the centre of Lydney and has undoubtedly led to uncertainty which has almost certainly held back investment.

### **S3. Fit with wider transport and government objectives**

#### **a) To what extent does the scheme support (or oppose) key policies within the Local Development Framework?**

The scheme is entirely in keeping with the aims and objectives of the Local Development Framework (LDF) both at a strategic and a more detailed level.

The LDF currently comprises the Forest of Dean Core Strategy (CS) and the remaining parts of the 2005 Forest of Dean District local Plan. In theory the Structure Plan Second alteration and the old Regional Planning guidance (1991, RPG 10) is still in force.

The principle behind the CS is one of increasing the degree of self-containment in the district by promoting levels of growth in keeping with the requirements of the area whilst seeking a high quality of development and a broader range of jobs and services. To this end the CS is settlement based with Lydney and Cinderford being the most important settlements for change. At Lydney where the greatest opportunities lie there is considerable additional growth planned in keeping with its generally more accessible and sustainable location. There remains a need for improvements within the town and it is these which are the subject of this bid. It is also considered that it is best placed to achieve a greater degree of sustainable self-containment. There is a major emphasis therefore in the CS of changing the perception of Lydney and also Cinderford, by providing new development supported by the necessary infrastructure.

Policies CSP 12 and 13 of the CS apply to Lydney to realise the following:

*“The Core Strategy depends on Lydney as the town with the greatest opportunity for change and the scale of new development planned will reflect this. It is able to offer a range of services, including access to the rail network which can in turn be further supported and improved by new employment and housing. Changes that do occur, principally the new neighbourhood to the east and the proposed changes along the harbourside, will enhance its function and must provide a greater degree of self- containment. In addition to the Core Strategy, it is intended to prepare an Area Action Plan to act as a development brief and delivery mechanism for changes to the area from the harbour to the town centre. This will address the connection between the harbour and provide scope for new mixed uses. The scale of the changes planned will not be sufficient to alter the complementary relationship between the forest towns, though increases in population, employment and visitors to Lydney will benefit the area and the town directly.”* (Text box p74 of the CS).

Supporting this is the provision of infrastructure again expressed in the CS:

*“Transport and access Provide a better environment especially for the town centre including the bus station. New highway building and environmental improvements are part of the Lydney Highway Strategy. Key elements of this are to be delivered as part of the East of Lydney development. This will result in a better town centre environment and will therefore support the wider objectives of the strategy. Optimum use should be made of the railway station which should offer improved facilities including parking, and the Dean Forest Railway. In the longer term the possibility of rail freight will be examined. New development will be required to take advantage of the town's access to the rail network and to contribute to the overall highway strategy and other necessary improvements.”* (7.26).

#### **b) To what extent does the scheme support (or oppose) objectives within the strategies and plans of other public-facing bodies that are most relevant to the scheme?**

The relationship with LTP3 has been considered above, as has the CS. These two documents align closely with other documents referred to below:

- Local Enterprise Partnership (LEP) - the aims of the LEP in terms of encouraging economic development and facilitating better infrastructure are addressed by the scheme. Lydney is a location in which the LEP is investing by way of a Gloucestershire Infrastructure Investment Fund (GIIF) loan to promote economic development.
- National Planning Policy Framework (NPPF) - the scheme is located at a town where new development is being directed as it is the most sustainable location in the District. The scheme is intended to enable amongst other things the development of the town centre in a manner intended to provide additional and better services and facilities. The scheme overall makes best use of public and private funds in order to deliver the required outcomes.
- Neighbourhood Planning - the scheme supports the emerging aims of the Lydney Neighbourhood Development Plan (NDP) and is supported by the early results of the public consultation which has so far taken place.
- Network Rail- part of the proposed scheme is to improve facilities which will lead to additional patronage at the station. The various parties are currently working with network rail to provide a masterplan and

programme for improvements to the station.

**c) Will the scheme have any negative impacts on other modes or outcomes?**

The scheme will have an impact on the existing Forest Road which will need to accommodate additional through traffic south of the new junction with the Newerne Link. It is likely that this revised flow will be equal to the present traffic on Newerne Street and any new arising from the east of Lydney development.

**d) To what extent does the scheme make better use of existing infrastructure or demonstrate innovation in terms of 'doing more with less'?**

The Lydney outer bypass (A48) is able to accommodate a relatively high volume of traffic safely and with the completion in particular of the Newerne Link there may be some trip diversion both to the benefit of the town centre and which makes better use of the bypass.

The scheme will encourage and enable better use of the station, supporting existing services and possibly encouraging enhancements.

The proposed cycle and walking routes use existing paths/ structures which will be upgraded.

*Note – The GLTB will also undertake a high level policy review to ensure proposed schemes do not adversely affect wider transport and government objectives.*

**S4. Degree of consensus over outcomes**

**a) What consultation has been undertaken to date?**

Previous consultation at the time of the original design of the highway strategy, 1987-1989 and before which led to the evolution of the then approved scheme. This has been safeguarded in plans since that date. Informal consultation in connection with the Area Action Plan (AAP) was carried out in 2011; this comprised a comprehensive series of consultations that followed Planning for Real methods, and sought views on issues within the AAP area, which includes the town centre and the Station/ Harbour.

Consultation by Lydney Town Council (LTC) for its NDP has taken place; and the findings include strong support for the elements of the proposed scheme.

As part of the AQMA Action Plan work, consultation with local residents and business has taken place to establish the best options for improving air quality in Lydney town centre, including transport options.

**b) What level of support does the scheme have, based on consultation or anecdotal evidence?**

From the recent (AAP) consultation the improvement of the Bream Road junction is a high priority. The consultation also highlights the wish for better town centre (pedestrian) space and an improved environment generally (Lydney AAP Issues report draft, 2012).

The returns from LTC's NDP consultation support the elements of the scheme with specific reference to the Bream Road Junction.

**S5. Alternative options**

**a) What different solutions have been considered (e.g. network improvement vs. public transport approaches to cater for high levels of demand)?**

This is a package of highway, cycling and walking improvements; the highway improvements will also benefit existing bus services in the area.

The Newerne Link is however the only way of removing the through traffic from the existing street within Lydney – this cannot be achieved by other means.

A variety of options were considered during the gestation of the original highway strategy including inner relief roads.

There are few options for cycle and walking routes or for improvements at the station, it's more a question of selecting the priority elements of what should develop into a network, aided by the contributions from the new neighbourhood.

**b) What work has been undertaken to refine a preferred option for the chosen solution (e.g. have different junction improvements options been considered)?**

During the long life of the town centre schemes they have been refined a number of times to bring a more environmentally acceptable practical solution at a reasonable cost. Such a solution is represented in the drawings accompanying this submission. The potential extent of the original schemes are represented in the maps accompanying the 2005 Local Plan (FoDDC Local Plan Review, 2005)

A study entitled Lydney Signals Assessment (2009) assessed junction improvement options.

**PART TWO - ECONOMIC CASE**

This section should set out **the full range of impacts – both beneficial and adverse** – of the scheme.

*In order to identify scheme impacts, it is necessary to compare scenarios with and without the proposed project. For most schemes, it will be sufficient to treat the ‘without project’ scenario as the current situation. For some schemes, however (e.g. capital renewal schemes), the current situation may not provide an appropriate comparator scenario. For a bridge replacement scheme, keeping the bridge open with the current weight and speed conditions may not be possible. The more realistic comparator scenario might be to either close the bridge, or apply speed and weight limits, or assume a short-term maintenance solution. Promoters proposing capital renewal schemes should agree with the **GLTB Interim Technical Officer**, the definition of the ‘without project’ scenario against which scheme impacts will be considered.*

**A greener, healthier Gloucestershire**

Scheme promoters should focus on providing **the best evidence available** to demonstrate **how** their scheme performs against each of the identified assessment criteria – paying particular attention to the justification for the Red Amber Green (RAG) assessment. Where quantitative evidence is not readily available, promoters should describe how their scheme will address identified problems and underlying causes, and explain the rationale for expecting a certain outcome to be delivered.

**E1. Carbon**

<p><b>Activity</b> – Does the scheme result in an overall change in the <b>total</b> demand for travel (measured by vehicle-kilometres travelled) across public and private transport modes (including freight)? (Red = increase, Amber = no change, Green = decrease)</p>	Amber
<p>Whilst no modelling data is available, on balance it is considered that there could be a rise in vehicle kilometres as a result of the scheme, since for through traffic, travelling via the Newerne Link is longer distance than via Newerne Street (250m longer). Traffic using Forest Road and the Newerne Link will travel 100m less than at present.</p> <p>This should be balanced against the mode shift to walking/ cycling and encourage and encourage greater use of rail. There will therefore be some shift to higher occupancy vehicles (or trains and possibly buses serving the station) and some increase in cycling and walking.</p>	

<p><b>Construction (embedded carbon)</b> – Is significant construction required? (Red = yes, Amber = no)</p>	Red
<p>As a new link road, ‘significant construction’ is required; however this is in proportion with the overall modest nature of the scheme. Approximately 300m of new road and four new junctions are required, the latter largely on existing highway. In addition some further improvements within the existing highway will be needed. A new river bridge is required where the link road joins the existing Forest Road. This highway work will require lighting. About 1500m of cycle/ walking route is required, though about half is on existing hard surfaced footways or highway. Existing bridges and other major structures will be used. The remainder is generally gravel footpath requiring reconstruction. There is an option to use an existing underpass at the crossing with the bypass.</p>	

<p><b>Fuel type</b> – Will the scheme encourage the use of bio-fuels or low carbon vehicles (e.g. hybrid or electric vehicles), resulting in a change in the average carbon content of fuel used (carbon per litre)? (Red = no, average carbon content of fuel will increase, Amber = no change, Green =yes, average carbon content of fuel will decrease)</p>	Amber
<p>The scheme will encourage the use of public transport and cycling and walking, it does not encourage or discourage low carbon vehicles or bio fuels.</p>	

<b>Carbon efficiency</b> – Will the scheme encourage or lead to more efficient driving, resulting in a change in fuel consumption per vehicle-kilometre travelled? (Red = no, average fuel consumption per vehicle-kilometre travelled will increase, Amber = no change, Green = yes, average fuel consumption per vehicle-kilometres will decrease)	<b>Green</b>
The scheme will reduce congestion and encourages use of more efficient routes and modes, for example the diversion of trips to the bypass. Junction improvements such as at Bream Road will reduce congestion and waiting times, and result in greater efficiency.	

## **E2. Local environment**

<b>Air quality</b> – What impact does the scheme have on local air quality? (Red = negative, Amber = no change, Green = positive)*	<b>Green</b>
Is an Air Quality Management Area (AQMA) affected (see Appendix B2 for a plan of current locations), positively or negatively?	Yes
Is the scheme likely to result in a change in average annual daily traffic flow of more than 700 vehicles, <u>and</u> a change in average speed of more than 5kph?	Unknown
Approximately how many affected households are within 50m of the carriageway?	Many
The overall impact on local air quality has been assessed as beneficial. The scheme is anticipated to have a positive impact on the Lydney Town Centre AQMA.	
There are approximately 70 properties (flats and houses) within 50m of the route Albert Street- Newerne Link and Forest Road. Of these, all but 15-20 already have frontages onto main routes (Forest Road, Albert Street or Newerne Street) At the site of the Bream Road junction improvement, the scheme would only affect existing properties which already lie on Hill Street or Bream Road/ Victoria Road.	

<b>Noise</b> – Does the scheme reduce absolute disturbance from noise? (Red = no, Amber = no change, Green = yes)*	<b>Amber</b>
Does the scheme affect a 'first priority location' and 'other important area' identified in DEFRA's Noise Action Plan?	No
Is the change in traffic flow expected to be more than 25%, <u>or</u> is the change in percentage of heavy goods vehicles expected to be more than 20%, <u>or</u> and is the change in speed expected to be more than 10 kph vehicles?	Yes for Newerne Street. No major total change
Approx. how many affected households are within 300m of the carriageway?	Many
The overall impact on noise has been assessed as broadly neutral.	
The scheme does not affect any first priority locations or other important areas as identified by DEFRA.	
Almost 400 households are within 300m of the carriageway of the proposed Newerne Link. These are all already within 300m of the existing main routes in the town (Newerne St, Highfield Hill, Forest Rd, Albert St).	
The scheme will reduce the through traffic in Newerne Street, a proportion of which will be HGVs, however the Bream Road, Forest Road and Albert Street will still be accessed (via Hill Street) and be used by all traffic.	

<b>Natural and urban environment</b> – What is the overall impact on the natural and urban environment? (Red = negative, Amber = no change, Green = positive)*	<b>Green</b>
Is the scheme wholly within the carriageway or highway verge or existing rail line boundary?	No
Are there any sites of international, national or regional environmental importance that will be impacted directly through land take or indirectly through proximity to the scheme? (see Appendix B3 for a plan of current locations) If there are, please identify them.	No
Is the scheme located within or near a flood zone (zone 3b or 2)? (see Appendix B3 for a plan of current locations)	Yes
Does the scheme involve the installation of lighting, signals, large signs, gantries, masts or traffic calming measures?	Yes
The scheme requires some new highway construction, most of which is on surfaces that are already developed hard surfaces (e.g. existing car park and access at Newerne Street). These already drain to existing systems. The increased traffic in Forest Road will be offset by the decrease in Newerne Street and the diversion to the bypass. Such land as is required includes part of the area vulnerable to flooding (zone	

3b) where the new road joins Forest Road, and across the land to the east.

No protected sites are affected in the town centre. The proposed cycle route is based on an existing hard surfaced (gravel) footpath that runs within a key wildlife site (the former tip) south of the bypass. Some of the remainder of the route (Swan Road to Lydney Lake) is not a protected site but runs through a sensitive environment.

The scheme will have virtually no landscape impact, all highway changes being within the town and a cycle/ pedestrian route that follows existing features and terrain and will in any event be designed to be of low impact.

Although not entirely within the existing highway, the landtake is such that about one third of the new link (100m) is on currently undeveloped land and the remainder on existing car park and associated access road.

The Bream Road junction as it exists now and as proposed adjoins a Listed Building (grade II). It would remain as it is when the scheme is implemented.

The scheme would include traffic signals at a number of locations, and revised signage. The cycle/ walking route will also require signing which will need to be in keeping with the surroundings.

### **E3. Health**

<b>Physical activity</b> – What impact does the scheme have on levels of physical activity? (Red = decrease, Amber = no change, Green = increase)	Green
<p>The increase and improvement of safe cycle and walking pathways will help to improve the health of the local population. This applies to journeys to and from the station, employment areas and others. The AQMA Action Plan consultation process undertaken recently shows that parents of school children worry about their journey to school and therefore increased car journeys are a result of health and safety concerns. Obesity levels in both adults and children are high in the Forest of Dean. Coronary Heart Disease (CHD) is also higher than the rest of the county. Physical activity is the best way of preventing CHD.</p> <p>The scheme includes an enhanced cycling and walking route from the town centre to the station. This connects to other routes (e.g. around the Lake from Tutnalls and the east of the town) and is an important part of a safer and better network. The new route provides leisure access to the harbour via a route already in place and thence to the footpath onto Naas Lane. It is able to serve the main employment areas and the station, together with the harbour. Beneficiaries include local residents but also visitors some of whom may use the station. Other footpath connections are accessible (eg Mead lane) and could be upgraded to bridleways.</p> <p>The town centre scheme will provide a safer environment generally with controlled crossings while removing through traffic in the main shopping frontage. This will encourage pedestrians.</p>	

### **Sustainable economic growth**

Scheme promoters should focus on providing **the best evidence available** to demonstrate **how** their scheme performs against each of the identified assessment criteria. Where quantitative evidence is not readily available, promoters should describe how their scheme will address identified problems and underlying causes, and explain the rationale for expecting a certain outcome to be delivered.

### **E4. User benefits**

<b>Connectivity</b> - What impact does the scheme have on end-to-end journey times? (Red = increase, Amber = no change, Green = decrease)	Green
Does the scheme directly affect any of the 30 congestion hotspots identified in LTP3? (see Appendix B4 for details)	No
<p>The scheme is required to ameliorate the impacts of likely rising levels of traffic, including that from the new neighbourhood. It will result in lower journey times than would have been the case without its implementation.</p>	
<b>Connectivity</b> - Does the scheme have an impact on the cost of travel (vehicle operating costs, fares, etc.)? (Red = increase, Amber = no change, Green = decrease)	Amber
<p>The scheme provides safe additional transport options to individuals who prefer to walk or cycle to work, or to</p>	

the station thereby reducing the cost of travel for those individuals.

<b>Reliability</b> – Does the scheme impact on day-to-day variability in journey times or average minutes of lateness? ( <i>Red = increase, Amber = no change, Green = decrease</i> )	Amber
Some simple journeys will be more reliable, and time may be saved by those using the station as opposed to road links to Gloucester or South Wales for example. Rail times are constant throughout the day not being subject to peak time congestion which greatly increases travel times to Gloucester for example (typical train times Lydney- Gloucester are 18-23minutes).	

<b>Resilience</b> – What impact does the scheme have on resilience of Gloucestershire’s strategic infrastructure (e.g. acts of terrorism, severe weather events, or the effects of climate change)? ( <i>Red = reduce, Amber = no change, Green = improve</i> )	Amber
none	

**E5. Delivery of housing**

<b>Delivery of housing</b> – How will the scheme facilitate new housing? ( <i>Red = prevent, Amber = may facilitate, Green = required to meet planned developments</i> )	Amber
Is the scheme identified as required infrastructure to facilitate new housing development within the Local Development Framework, or within a Transport Assessment to support a planning application, or within a S106 agreement, or similar? Would the scheme assist with improving access to potential new housing sites?	Yes
<p>The East of Lydney development is a strategic allocation for up to 1700 dwellings together with employment land and a neighbourhood centre. This has outline permission with the exception of two areas of housing one of which is already under construction.</p> <p>The new development is committed to contributions to transport and transport infrastructure (approx. £2m) but the infrastructure contributions are not sufficient to complete the necessary schemes which include the bid and also other highway improvements. They are however required as traffic increase from both the new development and as a result of current trends.</p> <p>The scheme will improve facilities for new housing, and help in redevelopment of key areas of the town centre.</p>	

**E6. Wider economic impacts and regeneration**

<b>Wider impacts</b> – Is the scheme likely to have any wider economic impacts?	
How will the scheme impact on access to urban employment centres, identified regeneration areas and / or development sites with potential to create jobs? ( <i>Red = negative, Amber = no change, Green = positive</i> )	Green
Is the scheme required to ‘unlock’ an identified development site, rather than improving general access to employment locations?	Yes
<p>Better access to existing employment areas will be the result of the scheme. This will apply to employment in Lydney as well as to employment further afield that can be accessed via the rail network.</p> <p>In the town centre, a key site (on the corner of Hams Rd/ Newerne Street) will have its full potential unlocked in a manner that allows the development of improved retail and public space, in a safer and more attractive environment (land at the corner of Naas lane, Hams Road). Other frontage sites onto Newerne Street will be more attractive due to the loss of through traffic.</p>	

**A safer, securer transport system**

Scheme promoters should focus on providing **the best evidence available** to demonstrate **how** their scheme performs against each of the identified assessment criteria. Where quantitative evidence is not readily available, promoters should describe how their scheme will address identified problems and underlying causes, and explain the rationale for expecting a certain outcome to be delivered.

**E7. Safety and security**

<b>Injury or deaths</b> - What impact will the scheme have on the number injured or killed in transport accidents? ( <i>Red = increase, Amber = no change, Green = decrease</i> )	Amber
The Bream Road junction has a record including 2 serious and 8 minor accidents (2004-2009) which a signalled junction would almost certainly have reduced. The Highfield Hill junction has a record of minor accidents, some involving pedestrians. Again a signalled junction would be expected to reduce these as there is currently no traffic control.	

<b>Crime</b> - What impact will the scheme have on crime? ( <i>Red = encourage, Amber = no change, Green = prevent</i> )	Green
The scheme enables public realm improvements which will be configured to design out crime especially in the centre. There is the potential for cycle provision in town centre following implementation of the Newerne Link. There will be improved (safer) cycle and pedestrian routes to and from town.	
At Lydney rail station, the scheme includes formal secure cycle parking, which should reduce cycle theft. There will be improved (safe and secure) parking for cars at the rail station - a new purpose designed extension in part substitution for on street and ad hoc parking in a variety of locations.	
<b>Crime</b> - What impact will it have on people's fear of crime? ( <i>Red = increase, Amber = no change, Green = decrease</i> )	Green
Secure parking at station for cars and cycles will reduce fear of crime. More use of better defined cycle/ pedestrian routes will bring increased feeling of safety on the route between the town centre and Lydney rail station.	

### Good access to services

Scheme promoters should focus on providing **the best evidence available** to demonstrate **how** their scheme performs against each of the identified assessment criteria. Where quantitative evidence is not readily available, promoters should describe how their scheme will address identified problems and underlying causes, and explain the rationale for expecting a certain outcome to be delivered.

#### **E8. Access to goods, services, people and places (non-work and non-commute trips)**

<b>Access</b> – Does the scheme improve access to key locations (supermarkets, doctors, hospitals, further or higher education establishments)? ( <i>Red = increase, Amber = no change, Green = decrease</i> )	Green
The highway element of the scheme is located on or in close proximity to the major shopping street. The removal of through traffic and the ability to regulate access to Newerne Street will allow improvements to access to the properties concerned. These contain a variety of uses which will see improved access.	
There will be improved access to station and beyond for leisure- for walkers/ cyclists, which will benefit people without access to a car.	
Overall, there will be improved (safer and less congested) access to centre as a result of the Newerne link.	

#### **E9. Severance**

<b>Severance</b> – Does the scheme increase the possibility of cross street / corridor connections between neighbourhoods, or between key origins and destinations, for pedestrians, cyclists, and equestrians, including those walking and cycling as part of a public transport trip? ( <i>Red = negative, Amber = No change, Green = positive</i> )	Green
The Newerne Link especially is designed to relieve the current town centre and in doing so will enable through traffic to be taken from the part of the centre that contains the primary shopping frontages. This area is adversely affected by traffic and the road is difficult to cross at certain times. Overall the town centre scheme (which will be enabled through the delivery of the Newerne Link) will improve access and reduce severance, most notably from one side of Newerne Street to the other- i.e. across the main shopping street.	
The cycle and walking routes will not create any severance problems, and will improve the link between the town centre and Lydney Rail Station.	
The use of signals at various locations will improve pedestrian safety and accessibility. This is especially true	

of the Bream Road junction.

After the scheme is built there will be increased traffic on Forest Road, albeit mitigated by the expected diversion of some through traffic onto the bypass. Some town centre roads (Hill Street and High Street) may also benefit from an element of diversion but will continue to carry traffic passing through the town.

### **E10. Social and distributional impacts (SDIs)**

<b>SDIs</b> – Does the scheme impact any areas identified as having a high proportion of vulnerable groups? (see Appendix B5)	
- Younger people	No
- Older people	No
- Disabled	No
- Low income	No
<b>SDIs</b> – Does the scheme result in any specific benefits or adverse impacts to vulnerable groups, in terms of access to goods, services, people and places, affordability of transport, and availability of public transport? ( <i>Red = negative, Amber = no change, Green = positive</i> )	
- Younger people	Green
- Older people	Amber
- Disabled	Amber
- Low income	Green
<p>The scheme has few negative impacts on the groups above, but will provide easier and safer access to various parts of the town, including the station. It therefore improve access to public transport as well as to destinations within Lydney itself. It will assist those with no access to private cars, as well as car users. Improvements to the town centre and elsewhere made as a consequence of the schemes will improve access for all groups including those with disabilities. The schemes themselves will improve overall accessibility.</p> <p>The scheme will also provide additional safe routes for cycling and walking to aid in the potential for improving the health of the local residents.</p>	

## PART THREE - FINANCIAL CASE

This section should demonstrate that the scheme is **affordable and financially sustainable**. Before proposing a scheme, promoters should ensure that they understand the financial implications of developing the project (including any implications for future resources spend and ongoing costs relating to maintaining and operating the asset), and the need to secure and underwrite any local or third party funding contributions.

### **F1. Capital cost**

<b>a) Please provide a best estimate of the base year (2013) cost, i.e. current year with no inflation:</b>	
Preparatory (including design, legal orders, procurement)	
Direct construction costs	
Supervision and management of construction project	
Land and property acquisition	
Risk	
Other (please specify)	
<b>Total</b>	<b>£4,682,154</b>
<p>The estimate has been produced using SPONS Civil Engineering and Highways Works Price Book which provides rates for civil engineering work elements. In addition some elements have been estimated using known sub contractor and main contractor rates for similar works carried out in Gloucestershire.</p> <p>The direct construction costs estimate comprises installation of traffic signals at Bream Road and Albert Road and associated civil engineering costs, new road construction for the link road between Albert Road and Forest Road with associated road signs and markings, drainage works and traffic management. The estimate also includes for a new bridge 25m length with 6m span in order to cross the watercourse adjacent to Forest Road. Extension of the existing 1.2m span brick arch culvert will also be required. The new bridge has been assumed as a precast concrete box section which is a reasonably simple structure and should not attract significant design costs compared to that required for a complex structure.</p> <p>In addition to the above an allowance has been made for a pedestrian and cycle link between the town centre and railway station car park, an extension to the railway car park is also included within the estimate albeit an allowance for resurfacing the existing hardstanding area.</p> <p>Land acquisition will be required for the new link road . Costs for land and property acquisition have been estimated by GCC valuers and include land acquisition, severance, injurious affection, disturbance and Part 1 claims where applicable. They are of course based on a site visit and the preliminary drawings attached to this bid. These costs will need to be considered reviewed in more detail as the scheme progresses.</p> <p>The cost estimate also allows for the diversion and protection of statutory undertakers equipment. Costs for these works have been estimated from service drawings, engineering judgement and historical costs for this type of work.</p> <p>Preparation costs which include for some traffic and traffic signal modelling, detailed design and, tender document preparation, Contractor procurement and overall project management have been estimated at 19%. Supervision of the construction works has been estimated at 9%.</p> <p>A project risk assessment has been produced and on comparison with a project with similar elements of construction for example road pavement and widening, traffic signals and sensitive traffic management. A 20% risk allowance has been quantified. The figure of 20% for risk allowances has therefore been used for this estimate.</p> <p><i>Please outline the basis for this cost estimate, summarising the individual scheme elements (in no more than 300 words).</i></p> <p><i>Capital costs should include all the costs involved in the setting up of the scheme and getting it operational. Please identify any assumptions and identify any particularly uncertainties. Exclude any optimism bias.</i></p>	

<b>b) Please provide a best estimate of the outturn cost spend profile (with inflation):</b>	
2015/16	£185,319
2016/17	£192,090
2017/18	£147,810
2018/19	£4,753,872
<b>Total</b>	<b>£5,279,091</b>
<p>The estimate of the outturn cost spend profile is based on the implementation timescales provided at question M4 with inflation added as stated below. Design, Supervision and construction costs have been allocated to the year of spend and inflation rates applied accordingly.</p> <p>For the purpose of spend profiling the land acquisition and associated costs have been assumed to occur just prior to construction.</p> <p>The delivery programme commences in April 2015 with strategic and outline business cases, design and contractor procurement being completed by December 2017. The construction phase is programmed for twelve months completing in February 2019.</p> <p><i>Please outline the basis for this estimate (in no more than 200 words).</i>  <i>Capital costs should include all the costs involved in the setting up of the scheme and getting it running.</i></p> <p><i>Please assume the following annual levels of inflation, and exclude any consideration of optimism bias:</i>  2012 = -1.2%  2013 = 0.5%  2014 = 1.9%  2015 = 2.8%  2016 = 3.8%  2017 = 2.8%  2018 = 2.8%</p> <p><i>These inflation levels represent an average, based on a number of estimates compiled by recognised experts within the construction industry (Faithful+Gould, BCIS, Gleeds, Cyrill Sweett, G&amp;T). Rates for 2017 and 2018, are based on the average rates for 2014 to 2016). For further information, see:</i>  <a href="http://www.fgould.com/uk/articles/construction-inflation-report-november-2012/">http://www.fgould.com/uk/articles/construction-inflation-report-november-2012/</a></p>	

## **F2. Local contribution**

<b>a) How much funding is being sought from:</b>	
Devolved major scheme funding?	£5,279,091
Other source? (please specify)	£cost
Other source? (please specify)	£cost
Other source? (please specify)	£cost

<b>b) How will other sources be funded?</b>
<p>The scheme will be wholly funded from devolved major scheme funding.</p> <p><i>Please provide supporting commentary (no more than 300 words).</i></p> <p><i>What is the source, e.g. from Section 106 planning agreements, the Community Infrastructure Levy, rail industry, donations from local businesses, etc. What evidence can you provide about the certainty of this funding, e.g. a letter of confirming the organisations commitment to contribute to the cost of the scheme?</i></p>

<b>c) What other funding sources have been considered and why have they been rejected?</b>
<p>There are outstanding negotiated Section 106 contributions primarily from the major sites east of Lydney. Although these will need to cover major investment for improvements outside this scheme (principally the A48/ Highfield Hill roundabout), funds are available for both the town centre and the station elements of the scheme.</p> <p>GCC have agreed but not received S106 contributions. There is no certainty at this stage that these contributions will be received. If received the first priority for the contributions will be to improve the A48/Highfield Roundabout junction. If funding is received, and after allocation to the A48/Highfield Hill Roundabout, then remaining funds will be allocated to the railway station car park extension and junction improvements at Bream Road and Albert Street.</p>

Please demonstrate that sufficient effort has been made to establish that there are no other realistic funding sources (in no more than 300 words).

### **F3. Financial sustainability and revenue costs**

<b>a) What is the whole life (60-year) revenue cost associated with this scheme?</b>	£157,528
<p>The estimate has been based produced using a whole life analysis which incorporates an assumed inflation and interest rate. In order to reflect typical rates during the whole life an inflation rate of 2% and savings rate of 5% have been used in the calculation. Typically the project results in an increased asset for the highway authority which will result in increased annual maintenance costs. In order to model likely costs key maintenance items such as any increased lighting, traffic signals, items requiring power and increased road pavements have been included into the calculation. Typical current maintenance costs for each of these elements of highway maintenance have been calculated on an annual basis using current costs from GCC and Gloucestershire Highways.</p> <p>It has been assumed that replacement of asset, for example a new traffic signal controller after 15 years of life would be replaced as a capital budget expense and therefore has been excluded from the whole life calculation.</p> <p>The increase in asset for the Lydney Transport Strategy is predominantly an increase in traffic signal equipment and a new link road which will necessitate road pavement and street lighting maintenance costs. Energy costs associated with street lighting and traffic signals have been included within the calculation.</p> <p><i>Please outline the basis for this estimate (in no more than 300 words). All operation, maintenance, enforcement, administration, subsidy and running costs should be included. Please provide a best estimate, stating if the estimate is particularly uncertain.</i></p>	

<b>b) Will the scheme result in a revenue saving? If yes, how much?</b>	No / Yes (£cost) No
<p>The scheme results in increased revenue costs.</p> <p><i>Please outline the basis for this estimate (in no more than 300 words). Please provide a best estimate, stating if the estimate is particularly uncertain.</i></p>	

<b>c) How will whole life revenue costs be funded?</b>
<p>Maintenance of the Lydney transport improvements will be funded from the Gloucestershire highway revenue budget. This is a standard arrangement for the maintenance of highway assets. There is potential to discuss maintenance of the railway car park with Network Rail, refer to question C2.</p> <p><i>Please describe (in no more than 300 words).</i></p>

<b>d) Have revenue issues, including commuted sum arrangements, been discussed and agreed with the relevant highway authority (i.e. GCC or the Highways Agency)? Have arrangements relating to any commuted sum payments been agreed?</b>
<p>Not applicable Gloucestershire County Council is the Highway Authority.</p> <p><i>Please describe (in no more than 300 words). Please provide evidence of any agreement with the highway authority.</i></p>

### **F4. Overall cost risk**

<b>What is the level of risk associated with the overall cost (1 = high risk, 5 = low risk)?</b>	<i>Please provide a risk score (1 to 5) 3</i>
<p>The overall level of risk associated with cost has been assessed as medium. Although the overall engineering is relatively straightforward the project does require significant land acquisition and there is the potential for ecological, heritage and contamination issues.</p> <p>The construction works have been identified and estimated using an accepted industry price book. In addition a project risk register has been prepared which has allowed a risk allowance to be assessed. Whilst the proposed construction is relatively uncomplicated the key elements that could increase costs are design and construction of a small bridge adjacent to Forest Road, utility diversions and traffic management. These elements have been included within the estimate and also included as part of the risk allowance.</p>	

In order provide some assessment of likely environmental costs an ecology, heritage and contamination review has been undertaken. Brief technical notes on each of these study areas are attached for information. Both the heritage and contamination desk top studies have concluded that there are not any specific matters that would affect the progress of the proposals however allowances should be made for adequate survey work to explore the site area in detail. The ecology report has identified potential ecological constraints and recommended further work that would need to be undertaken as the scheme progresses.

Land acquisition is required and an allowance has been made for compensation which has been included within the estimate.

Good risk management is fundamental to the successful delivery of the scheme. The programme will adopt a risk management process that has been successfully implemented on other large projects within Gloucestershire. The process will ensure that currently unforeseen risks are identified early, quantified and, where possible, mitigated with remedial action. The estimated risk cost, included in the above estimate, reflects risks identified in the project risk register and has also been compared with a Quantative Risk Assessment prepared for a project with similar risks. A full quantified risk assessment will be undertaken and maintained as part of the scheme preparation work.

The Value Engineering process will also be key in managing down costs. It is therefore anticipated that the above processes will mitigate against cost overruns. In the event that the project does experience cost overrun then these additional costs will be borne by GCC with funding being taken from the Capital Programme Budget.

*Please provide supporting evidence where possible (in no more than 300 words).*

*This might include examples the costs of previous similar schemes, and how these costs have differed from the original estimates. Please also identify how cost overruns will be dealt with; and outline the main risks to project delivery timescales are and what impact this will have on costs.*

## PART FOUR - COMMERCIAL CASE

This section should demonstrate whether the scheme **can be procured and constructed**.

### C1. Flexibility of options

**a) To what extent could the scheme be scaled up or down depending on the level of funding available, or modified to reflect changing circumstances?**

The scheme can be phased, though the full benefits require it in its entirety. The Newerne Link and the Bream Road junction improvements can be separated and delivered independently. The cycle and walking improvements can be implemented in stages, and the improvements at the station can also be programmed and delivered as a separate package. However additional land at the station may be available from 2016, when a current planning permission ceases and the improvements at the station would follow this. The cycle and walking improvements are in the main on publicly owned and controlled land and are relatively low cost so could proceed at any time. Better accessibility could be an early benefit of the scheme.

The scheme has been programmed and costed to be delivered as one complete contract to include the full package of measures. Separating improvements into individual packages will increase procurement and delivery costs.

*Please outline (in no more than 300 words).*

### C2. Any income generated

**a) Will the scheme generate any income? (Yes or No)**

No

There is potential for an improved station car park to charge (likely to benefit the operator who will probably be the rail franchise holder).

*If yes, please outline (in no more than 300 words), and (if possible) provide your best estimate of the amount of income which could be generated from the scheme?*

### C3. Procurement

**a) How will the scheme be procured (e.g. traditional contract, Early Contractor Involvement, etc), what timescales are required for procurement, who are the main delivery partners, who will appoint the contractor?**

*Please outline the proposed procurement route (in no more than 300 words).*

GCC already operates a term contract with their Designer and Project Manager, who will be preparing and delivering the procurement elements of the scheme. The scheme will be competitively tendered in accordance with County Council Constitutional Procurement rules and in line with the OJEU open process.

The OJEU open process and competitive tendering will require a timescale of 6 months which has been allowed for within the delivery programme. The period allows for the full OJEU process, selection of tenderers, the tender process and award of contract to the successful tenderer.

One of the main risks to the scheme, during construction is contractor performance, a risk that should not be borne by the Employer. Given the scheme does not include any significant engineering challenges it is anticipated that a priced NEC contract option would be selected as the form of contract in which the risks of carrying out the work at agreed prices are largely borne by the Contractor.

## PART 5 - MANAGEMENT CASE

This section should demonstrate whether the scheme is **deliverable within the identified timescale**.

### **M1. Most significant risks**

<b>a) Please identify the top 3 to 5 most significant risks (and mitigation measures) to delivery of the scheme, on time, to budget, and to the intended scope?</b>		
<b>Risk</b>	<b>Mitigation measure</b>	<b>Risk score</b>
Potential for public enquiry increasing costs and delay to the programme	Review design and minimise land acquisition where possible. Undertake early consultation.	3 (Medium) after mitigation
Ecology, heritage and contamination issues may increase programme and delivery costs	Allow for full seasonal ecology surveys and preparation of Environmental Impact assessment within delivery programme	3 (Medium/Low) after mitigation – Potential for mitigation measures and programme delay
Land boundary disputes and refusal to sell land resulting in delays to the programme	Proactive engagement with landowners and obtain early agreement.	4(Medium/Low) after mitigation
Changes to design after construction has commenced which could result in an extended programme and increased costs	Include float within construction programme, early engagement with third parties and pro-actively operate the NEC early warning process.	4 (Medium/Low) after mitigation
Increase in extent and cost of services diversions envisaged at bid stage.	Ensure formal agreement formal agreement of works in place during the early part of delivery programme.	4 (Medium/Low) after mitigation
<i>Examples could include issues relating to public and stakeholder acceptability, practical feasibility, dependencies on other funding sources or schemes, environmental complications which may emerge, capacity of contractors to deliver in identified timescales, availability of key skills and resources required to progress the scheme through the development and implementation phases, legal issues, delays to planning application process, quality of supporting evidence, etc.</i>		

### **M2. Public and stakeholder acceptability**

<b>a) What is the level of risk associated with public or stakeholder acceptability? (1 = high risk, 5 = low risk)?</b>	<i>Please provide a risk score (1 to 5)</i> 4
<p>As far as stakeholder acceptability is concerned there is some evidence from the earlier consultations referred to above that there would be support for the scheme. The Town Council support it and Network Rail likewise. There is likely to be some concern from the residents of Forest Rd, due to the increase in traffic that they are likely to experience. The improvement of the Bream Rd junction is often the first priority referred to when traffic issues in Lydney are discussed.</p> <p>Because schemes have existed in Lydney since the late 1980s in some form, the residents should be (and seem to be) aware of the scheme in general and all FoDDC plans have shown it since 1987 (Lydney Local Plan, 1989, and both District wide Local Plans (1996 and 2005)). There has been recent consultation regarding wider plans by FoDDC in connection with the then Lydney Area Action Plan for the town and also extensive consultation around the AQMA.</p> <p>The scheme is in part designed to facilitate some modal shift and therefore to succeed requires it. There is evidence however that this will happen if it is implemented (eg additional parking and better access to the station will lead to greater patronage. Demand for safe parking and access seems to exceed supply-as evidenced by lack of parking, lack of cycle facilities and rising rail passenger numbers).</p> <p>Town centre highway improvements need to be introduced alongside environmental improvements and because they enable the removal of through traffic from the main shopping area there will be an opportunity to realise the benefits of the scheme while providing what many past consultees have asked for (eg public realm improvements, meeting space, better pavements etc)</p> <p><i>Please justify your score (in no more than 300 words).</i></p>	

<i>Are there likely to be any issues around public or stakeholder acceptability? Are there any groups who oppose the scheme? Is there a risk that a long period will be required for public consultation? Does the scheme require behaviour change (such as mode shift)? Has there been public consultation to date? What mitigation measures / counter measures could be introduced?</i>	
<b>b) Has the relevant Ward Member(s) for the County and District Council been consulted?</b>	Yes / No No
The relevant ward member has been recently appointed so has not been consulted to date <i>Please summarise any feedback received (in no more than 300 words).</i>	

### **M3. Practical feasibility**

<b>a) What is the level of risk associated with practical feasibility? (1 = high risk, 5 = low risk)?</b>	<i>Please provide a risk score (1 to 5) 3</i>
<p>The construction key activities are road construction, bridge construction, services diversions and installation of traffic signals. The available construction area is restricted and in a town centre so this will present construction challenges in terms of managing noise, vibration, dust, local businesses and the public however the nature of the engineering is uncomplicated.</p> <p>Existing services are present in the town centre and will provide a risk however this risk can be managed through survey work and agreements with utility operators. Early investigation works which may comprise trial holes and ground radar surveys will establish the exact location of services and reduce the risk of difficulties during construction. Obtaining this information together with early discussions and agreements with each of the affected utility operators is considered to reduce the risk to a medium/low level. Advance service diversion works will be undertaken where possible in order to further reduce risk during the main construction works.</p> <p>The Bream Road junction improvements have been developed to provide an interim improvement at the junction location and within the existing highway. Junction modelling has shown that the improvement will retain reserve capacity beyond 2019 however dependant on development growth it may be necessary to review the junction layout beyond 2019. To further increase capacity at the junction it will be necessary to provide a layout that requires significant land acquisition.</p> <p>The overall risk has been assessed as medium. The construction activities are viewed as being uncomplicated however land acquisition is required and there is potential for a public inquiry. Planning permission will be required and although an environmental screening will be required it is likely that an environmental impact assessment will need to be produced.</p> <p><i>Please justify your score (in no more than 300 words).</i></p> <p><i>Can you provide evidence that the scheme likely to be practical and effective? Is planning permission and land acquisition required? How certain are you of the governance and legal feasibility of the scheme? Who would operate the scheme? Does the operator have the required statutory powers? Is any required technology proven? What mitigation measures / counter measures could be introduced?</i></p>	

### **M4. Implementation timescales**

<b>a) Please provide an outline timetable for key stages of the scheme, as applicable.</b>		
Strategic Business Case	Start date April 2015	End date June 2015
Feasibility study / preferred option	Start date July 2015	End date October 2015

Outline Business case	Start date September 2015	End date December 2015
Statutory Consents (planning permission, land purchase, Traffic Orders)	Start date December 2015	End date June 2017
Design (outline and detailed)	Start date December 2015	End date September 2017
Contractor Procurement	Start date Jul 2017	End date December 2017
Full Business Case	Start date December 2017	End date January 2018
Construction	Start date February 2018	End date February 2019
<p>Ecological surveys, preparation of an environmental impact assessment and planning processes have been allowed within the programme timescales. Allowance for a public Inquiry has not been included.  <i>Supporting commentary. Please provide details if any of these stages have been completed.</i></p>		

*\*This information will be used in the development of a deliverable programme which reflects annual levels of funding available for major schemes.*

<b>b) Could the scheme be delivered earlier, if funding was available?</b>	Yes / No Yes
<p>If funding was available the scheme could be delivered earlier provided that funds were made available to progress the preparatory work prior to April 2015.</p> <p>Land acquisition is required and an allowance for the planning process has been made in the programme. There would be an opportunity to advance the procurement process by inviting tenders prior to achieving planning consent. An actual award of contract would obviously need to follow planning consent to avoid significant risk to the Employer. By advancing the procurement period there is a risk that planning conditions may require design changes.</p> <p>The improvements to existing junctions which lie within existing highway could proceed earlier as separate packages. The scheme has been programmed and costed to be delivered as one complete contract. By separating junctions into individual packages this will increase procurement and delivery costs.  <i>Supporting commentary. Please describe how the scheme could be accelerated, and highlight any impacts this might have.</i></p>	

Thank you for your efforts in providing the information requested.

**Gloucestershire Local Transport Board**  
**25<sup>th</sup> March 2013**

## APPENDICES

### APPENDIX A: Policy Summary

The following documents contain policy objectives from various public-facing bodies. When providing evidence for the Strategic Case in particular, it would be helpful to demonstrate how the scheme can potentially meet the objectives of as many of these public-facing bodies as possible.

#### Transport Authorities

- Gloucestershire Local Transport Plan (in particular chapter 1): <http://www.gloucestershire.gov.uk/extra/CHttpHandler.ashx?id=44146&p=0>
- Highways Agency: <http://www.highways.gov.uk/about-us/corporate-documents/strategic-corporate-documents/>
- Network Rail: <http://www.networkrail.co.uk/publications/strategic-business-plan-for-cp5/>

#### Economic Development

- Gloucestershire Integrated Economic Strategy: <http://www.gfirst.co.uk/Portals/6/DOCS/Final%20Integrated%20Economic%20Strategy%20RDG.pdf>
- Local Enterprise Partnership (page 2 under the “Connection” heading): <http://www.gfirst.co.uk/Portals/6/DOCS/Final%20Integrated%20Economic%20Strategy%20RDG.pdf>

#### Local Partnerships

- Leadership Gloucestershire: <http://www.gloucestershire.gov.uk/extra/article/108309/Leadership-Gloucestershire>

#### Planning Authorities

- Gloucester, Cheltenham and Tewkesbury Joint Core Strategy consultation: <http://www.gct-jcs.org/Documents/PublicConsultation/DevelopingthePreferredOption/FinalJCSDPconsultationdocumentCOMPRESSED.pdf>
- Stroud District Council Core Strategy consultation: [http://www.stroud.gov.uk/info/plan\\_strat/preferred\\_strategy\\_consultation\\_final\\_final\\_amended\\_6-2-12.pdf](http://www.stroud.gov.uk/info/plan_strat/preferred_strategy_consultation_final_final_amended_6-2-12.pdf)
- Forest of Dean District Council Adopted Core Strategy: [http://www.fdean.gov.uk/media/Assets/ForwardPlan/documents/Core%20Strategy%20Adopted%20Version%2023th%20February%202012/Core\\_Strategy\\_Adopted\\_Version.pdf](http://www.fdean.gov.uk/media/Assets/ForwardPlan/documents/Core%20Strategy%20Adopted%20Version%2023th%20February%202012/Core_Strategy_Adopted_Version.pdf)
- Cotswold District Council Core Strategy consultation: [http://consult.cotswold.gov.uk/portal/fp/cs/2nd\\_io?pointId=1272981378533#section-1272981378533](http://consult.cotswold.gov.uk/portal/fp/cs/2nd_io?pointId=1272981378533#section-1272981378533)

#### National Government Documents

- Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/3890/making-sustainable-local-transport-happen-whitepaper.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/3890/making-sustainable-local-transport-happen-whitepaper.pdf)
- Door to Door: A strategy for improving sustainable transport integration: [https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/142539/door-to-door-strategy.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/142539/door-to-door-strategy.pdf)

#### Neighbourhood Planning

- Communities and Local Government policy: <https://www.gov.uk/government/policies/giving-communities-more-power-in-planning-local-development>
- Forest of Dean: [http://www.fdean.gov.uk/ngcontent.cfm?a\\_id=8000](http://www.fdean.gov.uk/ngcontent.cfm?a_id=8000)
- Cotswold: [http://www.cotswold.gov.uk/ngcontent.cfm?a\\_id=14210](http://www.cotswold.gov.uk/ngcontent.cfm?a_id=14210)
- Gloucester: <http://www.gloucester.gov.uk/LGNL/Business/Planning/Planning-developmentcontrol/NeighbourhoodPlanning.aspx>

(note: information for other local authorities was not found)

## Other Public Bodies

- Homes and Communities Agency: <http://www.homesandcommunities.co.uk/hca-local-investment-planning>
- Environment Agency: <http://www.environment-agency.gov.uk/aboutus/work/35704.aspx>
- Natural England: <http://publications.naturalengland.org.uk/publication/1147887?category=11001>
- English Heritage: <http://www.english-heritage.org.uk/professional/advice/our-planning-role/>

## APPENDIX B: Supporting Maps

The following maps can be used to provide supporting evidence for the scheme proforma. The maps can be found at: [insert web links when these are available]

### **B1: Automatic Traffic Count Sites**

- Automatic Traffic Count Sites within Gloucestershire

### **B2: AQMA Sites**

- Air Quality Management Areas: <http://aqma.defra.gov.uk/maps.php>

### **B3: Environmental Constraint Maps**

#### **Biodiversity**

- International designations - RAMSAR Sites, Special Protection Areas, Special Areas of Conservation
- National designations - Sites of Special Scientific Interest
- Local designations – Key Wildlife Sites, Ancient Semi-Natural Woodland, Ancient Replanted Woodland

#### **Water Environment**

- Flood Zones 2, 3a & 3b

Zone	Definition
Flood Zone 2 – Medium probability	This zone comprises land assessed as having between a 1 in 100 and 1 in 1,000 annual probability of river flooding ( <b>1% – 0.1%</b> ), or between a 1 in 200 and 1 in 1,000 annual probability of sea flooding ( <b>0.5% – 0.1%</b> ) in any year.
Flood Zone 3a – High probability	This zone comprises land assessed as having a 1 in 100 or greater annual probability of river flooding ( <b>&gt;1%</b> ), or a 1 in 200 or greater annual probability of flooding from the sea ( <b>&gt;0.5%</b> ) in any year.
Flood Zone 3b – Functional floodplain	This zone comprises land where water has to flow or be stored in times of flood.

*Technical Guidance to the National Planning Policy Framework (Department for Communities and Local Government, March 2012)*

All development proposals in Zones 2, 3a and 3b will need to be accompanied by a flood risk assessment, as part of the preparation of an Outline Business Case.

#### **Landscape**

- Areas of Outstanding Natural Beauty (AONB) and Green Belt

### **B4: User Benefits**

- Connectivity – Congestion hotspots (2003) identified in the Third Local Transport Plan

Map shows the 30 most congested junctions 2003, shown by volume:capacity (%).  
Key: Red dots = 90 to 100%; Orange dots = 80 to 90%; Green dots = 70 to 80%.

- Resilience – Large goods vehicle traffic flows in Gloucestershire (2009)
- Resilience - Roads prone to flooding

### **B5: Social and Distributional Impacts – Vulnerable Groups**

The following maps show the 20% of Census Output Areas with the highest proportion of 'vulnerable groups'.

- Younger people (Under 16)
- Older people (65+)
- Disability Living Allowance claimants
- Low income - Jobseeker's Allowance claimants
- Low income – Index of Multiple Deprivation: Income

### **B6: Car ownership**

The following map shows the 20% of Census Output Areas with the highest proportion of 'no car households'.

- No car households