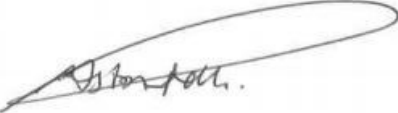


# Capital Investment Fund Business Case Template

<b>Project Title (to be used in future Cabinet/Council papers and Capital Programme)</b>
<b>Green Man, Coleshill, Signalised Junction (Casualty Reduction Scheme)</b>
<b>Assistant Director sign off</b>
<p>The Assistant Director, in submitting this bid to the Evaluation Panel, is:</p> <ul style="list-style-type: none"> <li>• Confirming the scheme is a priority to deliver the Council's core outcomes,</li> <li>• Satisfied with both the content and rigour of the business case, and</li> <li>• Accepting accountability for delivery of the scheme benefits as detailed.</li> </ul> <div style="text-align: center; margin: 10px 0;">  </div> <p>Assistant Director .....</p> <p>Date of Sign Off .....11.09.18.....</p>
<b>Strategic Finance Manager sign off</b>
<p>The Strategic Finance Manager, in signing off this bid, confirms:</p> <ul style="list-style-type: none"> <li>• Any figures and/or statements made in relation to finance presented in the bid and/or any appendices are accurate and complete, and</li> <li>• All financial risks or potential risk outcomes associated with the bid have been given appropriate consideration and evaluation.</li> </ul> <p>Strategic Finance Manager .....Dawn Suckling.....</p> <p>Date of Sign Off .....10<sup>th</sup> Sept 2019.....</p> <p>Comments .....</p> <p>.....</p> <p>.....</p>

**Please ensure you have read the detailed guidance (appendix C) and the evaluation criteria (appendix B) before completing this template.**

<b>Under which of the Council's Core Outcomes should the bid be assessed?</b>		
<b>Asset Enhancement and Strategic Investment</b>		<b>Making Best Use of Available Resources</b>
Warwickshire's communities and individuals are supported to be safe, healthy and independent	Warwickshire's economy is vibrant and supported by the right jobs, training and skills and infrastructure	Delivery of Revenue Savings / Generation of Revenue Income
(Y)		
<b>Which strategic objective(s) will the project deliver? (Select all that apply in correct section as indicated above)</b>		
<b>Warwickshire's communities and individuals are supported to be safe, healthy and independent</b>		
Support our most vulnerable and disadvantaged children reducing the need for children to become, or remain looked after		N
Support Warwickshire residents to take responsibility for their own health and wellbeing and reduce the need for hospital or long term health care		Y
Support the most vulnerable and disadvantaged adults in Warwickshire to enjoy life, achieve and live independently		Y
Work with communities to reduce crime and disorder and promote safety across Warwickshire		Y
<b>Warwickshire's economy is vibrant and supported by the right jobs, training and skills and infrastructure</b>		
Attract economic investment and maximise the rate of employment, business growth and skill levels in Warwickshire		
Manage and maintain Warwickshire's transport network in a safe, sustainable and integrated way		Y
Support communities and businesses to develop the digital skills and tools they need in an increasingly digital economy		
Reduce waste and increase reuse, recycling and composting rates across Warwickshire		
Support and enable children and young people to access a place in high quality education settings		
<b>Delivery of Revenue Savings / Generation of Revenue Income</b>		
Make it easy for the customers to access our information and services so they have a positive experience of our services		
Put our financial resources in the right place to support the Organisation's priorities		
Develop our work force so that it has the right skills and capabilities to get the job done		
Pursue leadership excellence and high performance at all levels		
Reduce demand and cost through innovative and effective service redesign		

**ALL BIDS MUST ANSWER ALL GREY-HEADED BOXES**

**Q1: What need or opportunity is the proposal meeting? (one page maximum)**

The Green Man, Coleshill, Signalised Junction Casualty Reduction Scheme (the Scheme) will reduce personal injury accidents within Coleshill. The junction of Birmingham Road/Blyth Road/High Street features consistently on the County's annually produced list of junctions with a poor safety record as the junction has a long-standing history of being a casualty hotspot for traffic collisions resulting in personal injury.

Cllr Hayfield and Cllr Reilly have also highlighted capacity and safety as issues which need addressing at this location. The existing delays experienced travelling through this junction has been raised as a key issue from members of the public. Presently the delays experienced in reaching wider routes due to the inadequate road layout have led to driver frustration. This has been identified as one of the main contributory factors leading to collisions. Cyclists presently have been involved in a number of collisions at this location; this again is as a result of the present road layout. The new layout will ensure that cyclists can confidently facilitate this collision hotspot when travelling to their wider route, as the traffic signals will only allow 'ahead only' movement. The new road layout will prevent vehicles turning into High street from Blythe Road and Birmingham Road, which will remove collisions with cyclists as well as any other vehicles at this location.

Transport Planning has been working with local members and WCC's Road Safety team on a solution to the capacity and safety issues around the Green Man junction in Coleshill. A number of the issues linked to capacity and safety are linked to the junction layout, visibility and the ability to make all vehicle movements at the junction. The proposed scheme layout is highlighted below (figure 1a).

Traffic signals would offer a maximum control to the road intersections at this location. The signalised traffic signals will relay messages of both what you must do and what not to do as a driver. The primary function of the traffic signals is to assign the right of way to the contradicting movements of traffic at an intersection. This is done by allowing the conflicting traffic streams to share the same intersection by way of separating the time for the movements.

WCC's Road Safety team produces a list annually as part of the Casualty Reduction Scheme (CRS). This investigates sites with a high amount of Personal Injury Collisions (PICs) over a five year period. The aim of this programme is to improve safety at these identified locations using engineering measures to resolve treatable collision patterns.

The ten sites for the 2019/2020 CRS programme are shown in the table below which have been identified as the junctions with the highest amount of PICs occurring: The Green Man scheme is ranked at number six. The other sites identified have either proposed engineering schemes or do not have treatable patterns of collisions. This Scheme has been progressed in advance of higher ranked schemes due to suitable engineering designs identified which has resulted in high level feasibility work being

carried out. This would ensure that project risks are minimised. Higher ranked schemes have not yet been able to provide identifiable engineering solutions to reduce casualties at their respected locations.

**Figure 1: 2019/2020 Casualty reduction programme**

Rank	Primary Road	Location	Site Description	Cluster Diameter (m)	2018 PIC	2018 KSI	Measures	CIF Proposal
1	B4455	Harbury	Fosse Way jw C43 Harbury Lane	35	35	3	Traffic signal installation	Yes
2	B4102	Astley	Park Lane je Red Lane	33	23	7	Roundabout/Traffic Signal installation	Yes
3	B4098	Fillongley	Coventry Road jw B4102 Nuneaton Road	42	23	2	Roundabout/Traffic Signal installation	Yes
4	B4109	Wolvey	B4114 Temple Hill jw Lutterworth Rd	50	20	3	Roundabout installation	Yes
5	B4114	Fumace End	Coleshill rd jw Nuneaton Rd	40	16	2	Roundabout/Traffic Signal installation	Yes
6	B4117	Coleshill	High Street jw B4114 Birmingham Rd	60	15	1	Traffic signal installation	Yes
7	A4390	Straford	Grove Road jw D6320	70	15	1	Due to geometry unable to provide solution within existing site extents. Pattern of collisions alone does not provide sufficient justification to progress scheme	No
8	A429	Shipston	Fosse Way jw B4035 Campden Rd	30	13	6	Traffic signal installation ongoing	No
9	B4453	Bourton	Straight Mile jw A4071 Blue Boar Flyover	54	12	2	Roundabout/Traffic Signal installation	Yes
10	A428	Rugby	Lawford Rd jw Jubilee Street	50	11	4	Roundabout installation ongoing	Historic CIF

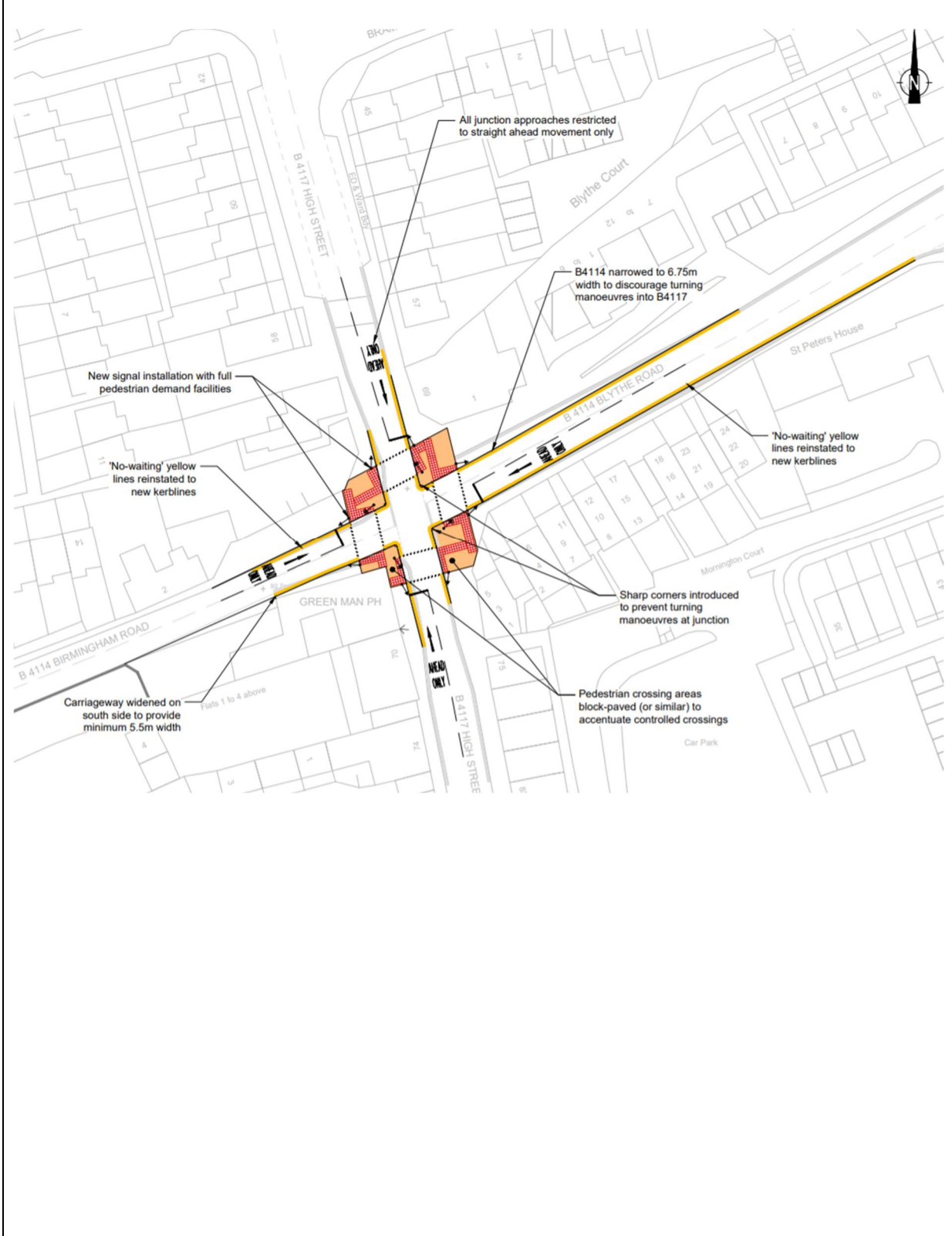
**Table Key**

JW- (Junction with)

M- Metres

Rd- Road

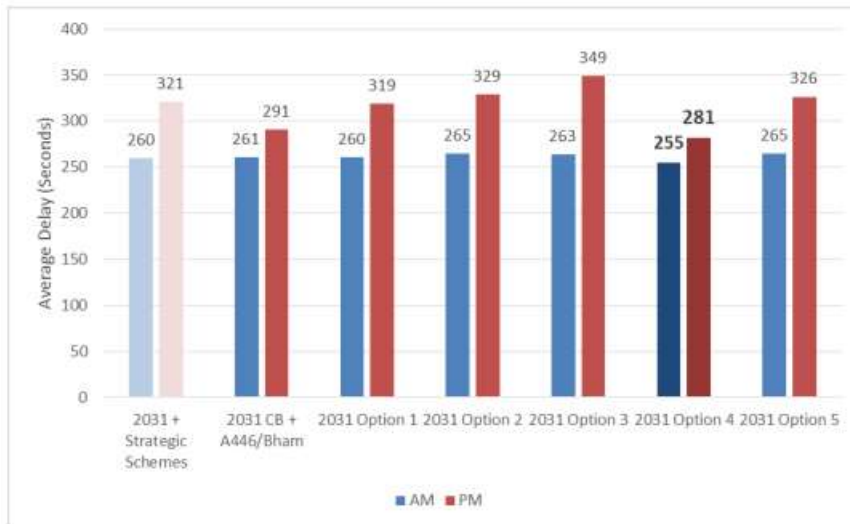
**Figure 1a: Proposed Scheme Layout**



**Q2: What options have been considered and what has the appraisal approach been? Which is the preferred option and why? (two page maximum)**

The present road layout at the Green Man junction has been analysed from the safety engineering team. The analysis highlighted regular patterns of collisions, which could be prevented if the junction became signalised in combination with pedestrian ‘walk’ with traffic movement. This scheme was also identified to tackle present capacity constraints which would have a knock on consequence on road safety. A range of the options explored are attached separately, these took into consideration alternative network arrangements which were investigated with the town council. The below table highlights that (option four) clearly presents the best option in terms of the strategic level performance. This is demonstrated by the fact that the journey times in Option 4 are quickest of all of the options.

**Figure 2: Average Delay in Travel**



An accident investigation report highlighted the vulnerability of car users, cyclist and pedestrians at the junction, the majority of collisions arise from failure to give way at the existing cross roads. The current layout is not fit for purpose with the level of traffic entering or leaving this junction to access their wider route.

The frequent collisions at this location require regular renewal of signs and posts, refreshing of junction markings. Maintenance crews are regularly required to attend site and set up road closures following road traffic collisions in order to clear debris and resolve oil spillages. This resource could be better utilised at other locations within the county. Due to the nature of collisions, updating signs and road markings which have been would not result in a reduction in collisions occurring at this junction.

The signalised junctions ‘walk with traffic’ approach will also allow pedestrians to cross safely at this location, whereas presently vehicles are able to turn sharply off the High Street on to Birmingham Road and Blythe Road. Drivers during peak times are carrying out this manoeuvre at higher speed and undue care as a result of frustration caused by queuing. This Scheme will reduce the severity and frequency of various types of

accidents or crashes, especially the right-angle collisions that are occurring. These reoccurring collisions will be significantly reduced if not completely removed as the signalised traffic lights will allow 'ahead only' movement.

Benefits will be far reaching to all road users and the local community. Birmingham Rd/Blythe Rd proves an important link from rural north Warwickshire and Nuneaton to the A446 and Birmingham; as such the route experiences relatively high flows.

The project comprises a number of enhancements which will have the following benefits:

#### Transport Improvements

- Manage the flow of traffic along the corridor
- Reduce the personal injury collisions at the junction
- Improve conditions for pedestrians and enhancing the overall public realm.

#### Highway Improvements

- Signalised ahead only junction at Green Man junction. Allowing "walk with traffic" movements for pedestrians
- Sharp Cornering at junctions to remove turning movements for vehicles, which will reduce hold up to traffic flows in this high casualty hotspot.
- No waiting 'yellow lines' on junction approaches, with reinstated kerbs

#### Pedestrian Improvements

- 'walk with traffic' pedestrian control to be provided at the junction which significantly improves conditions for pedestrians in the area, especially since the current arrangement only has one uncontrolled pedestrian crossing point which is approximately 60 metres south of the junction and only caters for pedestrians crossing High Street
- Tactile paving to be installed to highlight controlled crossing point which will be highly beneficial for visually impaired people crossing at this junction.

The Scheme will tackle a part of the road network which suffers from consistently high collision rates, often involving personal injury to road users. The new road configuration will significantly reduce collisions and injuries from the current rate of 5 per year to around 0.4 per year. Across Warwickshire signalised junctions have PIC rates of approximately 0.4 per year. Therefore It is assumed that the proposed signalised junction will have a beneficial impact on the driver to reduce road casualties in line with experience at other sites across Warwickshire.

The Department for Transport (DfT) gives a value of £102,715 for the cost to the UK economy for each PIC. This would mean that a potential reduction in accident/Collision cost of £513,575 a year as a result of this scheme being implemented. This figure would highlight a significant sum of money which is spent on attending casualties at this location. The initial cost lay out of the scheme in comparison to the reduction in collisions would highlight how beneficial this scheme will be from a road safety point of view.

**Q3: What are the expected benefits of the proposed option and how have they been assessed? How will they be measured when the scheme is complete? What baseline data have been**

**collected and when will the benefits be felt? How will we know the benefits are as a result of this investment? (two page maximum)**

An Accident Investigation Programme has been carried out and identified an average personal injury collision (PIC) rate of 5 per year at this location. As highlighted Warwickshire's signalised junctions have PIC rates of approximately 0.4 per year. It is therefore assumed that the proposed signalised junction will have a beneficial impact on the driver which will reduce road casualties. 94% of incidents occurred at this location as a result of vehicles failing to give way, highlighting the high level of incidents occurring at this location being due to drivers taking risky manoeuvres from being frustrated at the queuing time on Blythe road and Birmingham road.

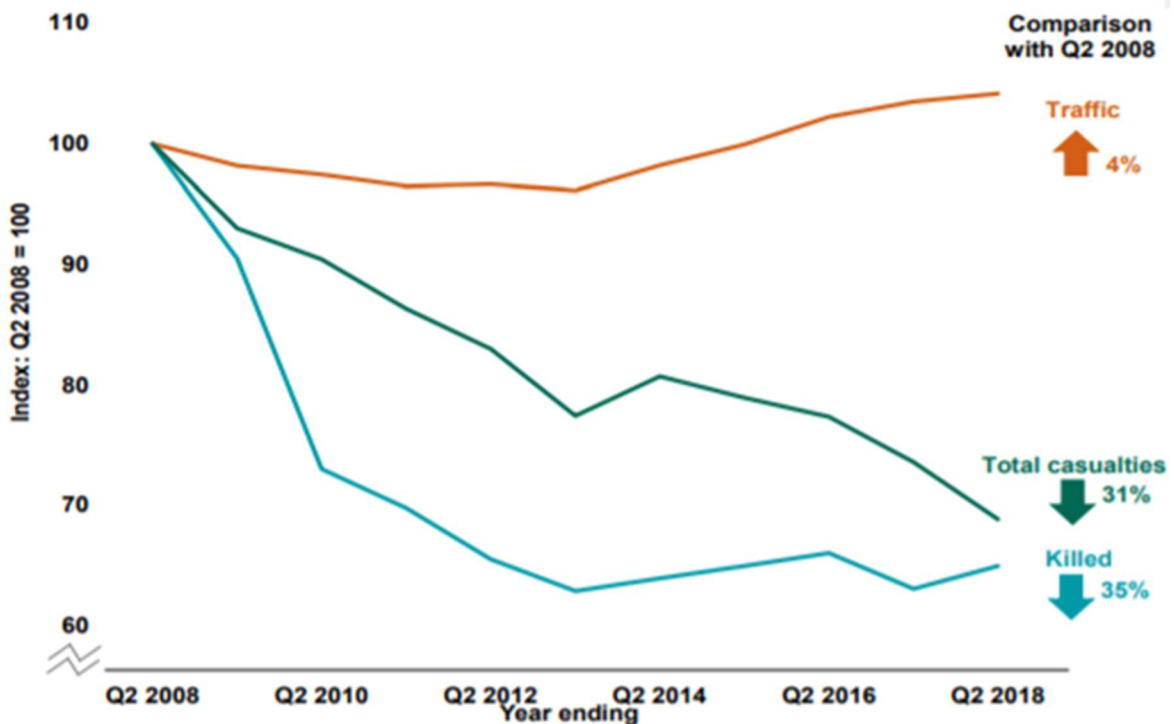
As part of the Vectos modelling package, a benefit to cost ratio (BCR) was carried out on the proposed scheme. The BCR takes into consideration the initial cost layout of the scheme, in relation to the proposed benefits achievable for the road users. Attached separately the highlighted cost benefits are shown taking into consideration all stakeholders using this road. For the signalised junction scheme a positive BCR of 6.16 was established based on the projected cost of scheme of £500,000 which includes contingency built in to the cost.

The DfT collects data from collision sites and vehicle counts across the UK. This data is used to identify trends which can be useful in forecasting collision frequency. For the UK as a whole, vehicle growth and killed and seriously injured (KSI) figures show a degree of correlation. Figure 3 below shows the trends for casualties for the entire of the UK. Despite traffic growing significantly the amount of casualties in the UK is in decline. The Green Man junction however has not followed this declining trend and has consistently high casualty numbers.

At the Green Man Road junction the KSI rate for the last five years has been observed, based upon the collision data for the location it is a safe assumption that as traffic increases, the proposed scheme will have a significant impact on reducing the number of collisions at the site, most importantly on the proportion of PICs which is valued at £102,715 per PIC.



**Figure 3: Fatalities, total casualties and traffic, GB, years ending June 2008 to 2018**



The above chart shows that in general though casualties are in decline across the UK, this is not the case at the Green Man Junction location.

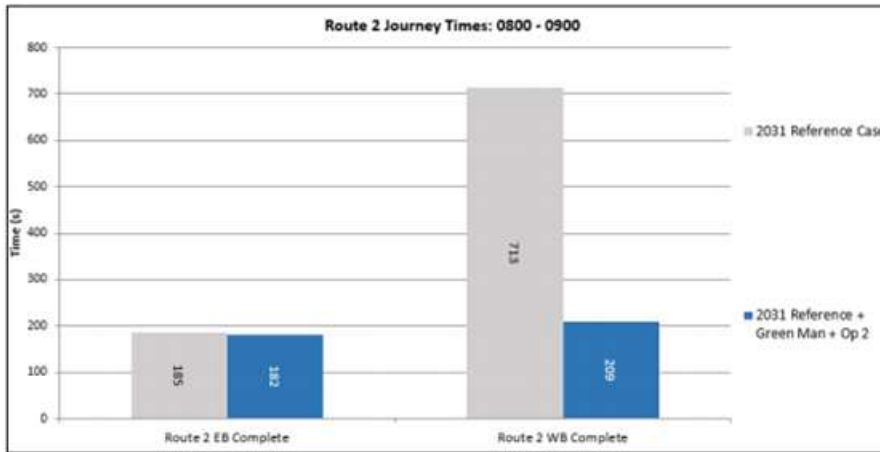
Changing the road layout to a signalised junction road, from the existing 'STOP' junction on Blythe road and Birmingham Road predicts a significant decrease in injury collisions. The walk with traffic signalised junction will give pedestrians the confidence to cross safely at this location. Vehicles only being able to move 'ahead only' will reduce motorists colliding with pedestrians and cyclist at this location.

Once the Scheme is in place a review of the collisions across a three year period will be monitored. These figures will be monitored to identify the level of collisions potentially still occurring at this hotspot, and inform the nature of collisions. These will be able to be assessed against the estimated baseline reduction from 5 to 0.4 collisions a year, which was the estimated figure of annual collisions, once the Scheme is implemented. This is based on the data gathered for signalised junctions across Warwickshire.

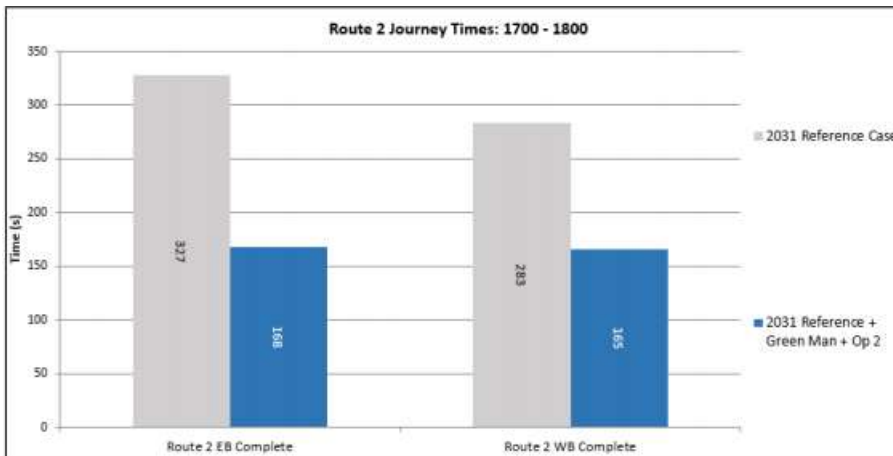
Presently there is increasing driving frustration in being able to access wider routes through the present road layout. Below is a graph which analyses peak time traffic at this location: the blue bar highlights the Green Man junction being signalised, highlighting the estimated journey time saved. The grey bar which highlights; if nothing was done and the layout remained the same. The table clearly highlights that journey time will be significantly reduced with the implementation of this scheme. Driver frustration was a key

contributory factor which led to a number of collisions occurring at this location, therefore it would be predicted that these collisions are far less likely to occur as access to wider routes will be made easier and less time consuming through the new road layout.

**Figure 4 : Route 2 Journey Times AM Peak Hour 0800-0900**



**Figure 5 : Route Journey Times PM Peak Hours 1700-1800**



**Q4: What are the specific legal, tax (including VAT), HR or other statutory issues relating to the project? How have these been assessed and considered? Please attach any relevant advice, including sources, as appendices. (one page maximum)**

N/A

**Q5: What is the project timeline through to full delivery of benefits? (either describe here or attach as appendix)**

Once the funding has been secured, the preliminary design will be reviewed alongside onsite visits , this will be carried out by our design services team. This design will then have a first stage audit carried out on it. Utility companies will then be communicated with to confirm cost estimation provided for the work to be carried out at this location.

Once this has been established a detailed design will be commissioned for the proposed scheme. This again will need to go through an audit, which once complete the design can be finalised for the scheme. The audits will be carried out by the traffic and road safety team.

Contracts drawings will then be produced by Design services. Construction mobilisation will follow once the drawings have been prepared for the contractor. Utility diversion works will normally be agreed in conjunction with this. Once this has been agreed and approved with all the legal licenses in place, the construction phase can commence.

**Q6: What are the potential equality impacts of the project and its outcomes? (attach the EqlA as an appendix and comment here)**

An EqlA has been carried out on the installation of traffic signals and is attached to this report separately. None of the categories have been identified as being prone to discrimination, which will be adversely affected by the installation of enforcement cameras.

**Q7: Are there any consultation requirements arising from the proposal? How have these been assessed?**

There will be a requirement for Consultation of new Traffic Regulation Order.  
It is expected to undertake consultation with local members where information will be given on the Scheme as well as the opportunity for consultation and input from members.  
This engagement is scheduled to take place once funding has been secured.

**Q8: What are the key risks to the delivery of this project's benefits, on time and on budget?**

**Either describe risks (including both impact and probability), or attach a risk register as an appendix. Include planned monitoring steps and potential mitigation actions. What is the governance structure to deliver the project's benefits? (one page maximum)**

WCC's Transport and Economy will assume full responsibility for delivery of the Scheme. The Scheme will be managed as a project using PRINCE2 methodologies in accordance with WCC standard governance procedures, which determine delegations for decision making, reporting and monitoring

Risk Register is attached as a separate document.

**Q9: Provide the estimated Capital Costs and Funding.**

	Prior years £'000	2019/20 £'000	2020/21 £'000	2021/22 and later £'000	Total £'000
Design: Detail design			33		32
Site Supervision			12		12
Works: Survey, Audits, Contract works. Highways cost (including contingency)			161		161
Traffic signals			42		42
Public utilities: Gas, electricity (including contingency)			81		81
Contingency (44%)			142		142
Inflation factor (6% per cent per year)			29		29
<b>Total Capital Cost</b>			<b>500</b>		<b>500</b>
Less: external funding secured					
Less: external funding unsecured					
Less: revenue/other internal funding					
<b>Capital Investment Fund requirement</b>			<b>500</b>		<b>500</b>

**Q10: Explain where uncertainties in costing exist. What is the probability of cost increases and what is the level of contingency within the budget?**

The levels of anticipated engineering works proposed for this Scheme have had contingency built in to their estimated cost as highlighted above. These have been factored in to utilities works and highways construction works. The contingency would

factor utility cost which could increase when ground works are carried out, as well as increase in highways construction cost if the project is delayed or requires additional specifications of works.

The cost estimations are based on the preliminary design, however these will need to take in to consideration mitigating factors such as removing pinch points, addressing possible rat runs as a result of this schemes implementation. This supports the requirement for £500,000 to deliver this scheme, anything which is surplus will be returned to the CIF Pot.

**Q11: Provide details of any External Funding identified above**

Sources of Funding	Secured or Unsecured	Prior years £'000	2019/20 £'000	2020/21 £'000	2021/22 and later £'000	Total £'000
<b>Total external funds to be applied</b>						

**Q12: What are the conditions and timescales for achieving and applying these external funding streams?**

The funding should only be used for the detailed design and further feasibility work associated with the improvement scheme at the Green Man crossroads.

**Q13: What are the revenue costs/savings arising from the project? How will they be met?**

There will be an ongoing maintenance requirement for traffic signals. These will be met from the traffic signals team as part of their maintenance programme for all existing traffic signals across Warwickshire. The average cost for maintenance and routine inspections for a traffic signal junction has been highlighted in the table below, which was provided from our traffic signals team.

Provide details in table below

Revenue cost item and funding source	Prior years £'000	2019/20 £'000	2020/21 £'000	2021/22 and later £'000	Total £'000
Maintenance and routine inspections of traffic signal junction (annually)			3		3
<b>Total revenue cost / benefit</b>					<b>3</b>

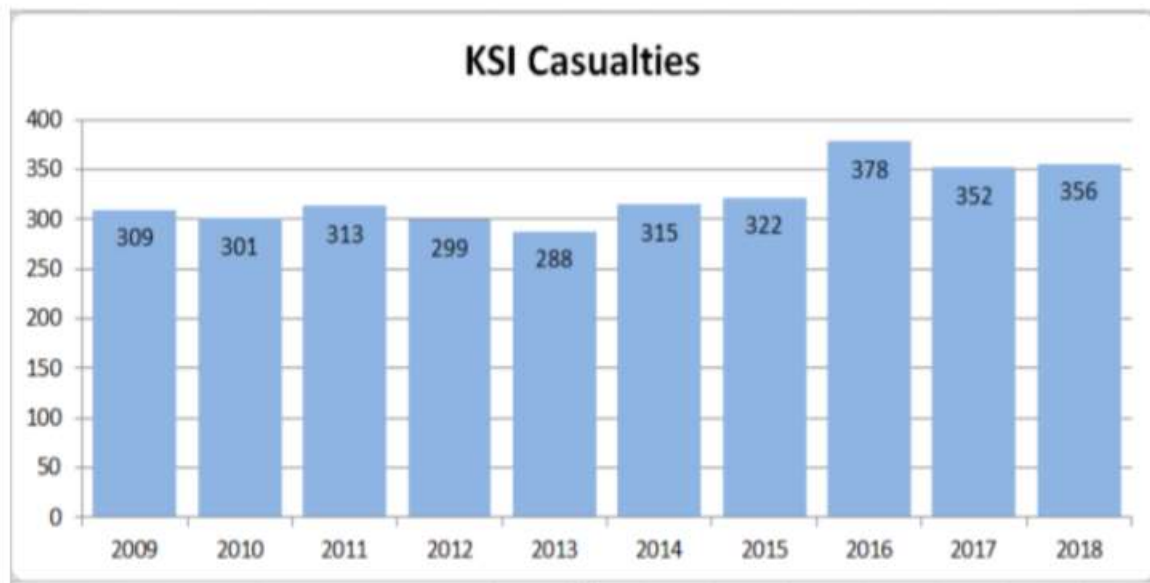
**Q14: What are the likely political/reputational implications of the project? How have these been assessed?**

WCC has a duty as the local Highways Authority to manage its road network with safety as a priority. The government wrote to local authorities, stating that “road casualties have huge economic and personal costs. The government is fully committed to working with local authorities to deliver further improvements in road safety.”

Part of WCC’s combined approach to road safety within the County is an engineering one. The proposed Scheme will therefore use an engineering approach to contribute to the Authority’s overall aim to reduce the number of people killed or seriously injured on its roads.

As highlighted below, the KSI casualties for Warwickshire have steadily increased year on year. The increase in number of vehicles suggests that this figure will also increase, especially at high volume traffic locations, such as the Green Man junction. Failure to tackle collision hotspots, especially those which have been recognised for some time, may have substantial reputational impact for WCC, especially if they are allowed to continue.

Figure 6 : WCC KSI Casualties (2009-2018)



Local members have received correspondence from their constituents highlighting the issues at this particular location. Although various road safety measures such as regular relining and updating the signage has occurred, the casualty problem persists.

Failure to deal with the problem is likely to lead to pressure on elected members as traffic flows increase and collisions likely to increase in turn.

**Q15: What are the likely social implications of the project? How have these been assessed?**

The social implications are wide and far-ranging and include a reduction in injury collisions to pedestrians at the junction. This will have direct benefits to those pedestrians who use the junction on a regular basis and the addition of signals will see improved safety and a corresponding reduction in the likelihood of being involved in a collision.

Aside from the obvious health and well-being of not being directly involved in a collision, local residents will benefit from no longer living with the knowledge of a relatively dangerous junction within their location. This is likely to have significant mental health and well-being effects. The present busy road is difficult to negotiate for vulnerable road users; the signalised junction will give equal priority to pedestrians and cyclist with the new walk with traffic signals.

The removal of delays in traveling to wider routes will result in better air quality at this location. A further benefit travelling through this location under the new layout would be reduced cost in fuel consumed to access wider routes for commuters; this is highlighted in Traffic Economic Efficiency (TEE) table which is attached that highlights all the transport economic efficiencies.

For commuters and other road users, the reduction in collisions which occur at this junction will improve the flow of traffic and prevent delays. This will help economic productivity and reduce frustration in drivers, itself a common cause of collision at this location. These figures are quantified in the (TEE) table attached separately.

**Q16: What are the likely environmental implications of the project? How have these been assessed?**

The DfT's *Creating Growth, Cutting Carbon: Making Sustainable Local Transport Happen (2011) White Paper* is a document that sets out the government's vision for a sustainable local transport system that supports the economy and reduces carbon emissions. It address the dominance of private vehicles by encouraging more sustainable modes of travel and the role local authorities has in enabling this shift.

This Scheme ties in with the ambitions of the above document as it will encourage sustainable local travel and economic growth by making cycling and walking more attractive and effective, promoting lower carbon transport whilst also be tackling local road congestion.

The provision of improved pedestrian facilities within the Scheme will improve the environment for people choosing the healthier option of walking; the Scheme will encourage this activity in the local area.

By signalling the junction and reducing collision frequency, there will also be an improvement in congestion at the site. Air quality will be improved, through less queueing and fewer hold-ups, leading to a reduction in vehicle emissions. This will lead to further improvements in the well-being of local residents through improved air quality.

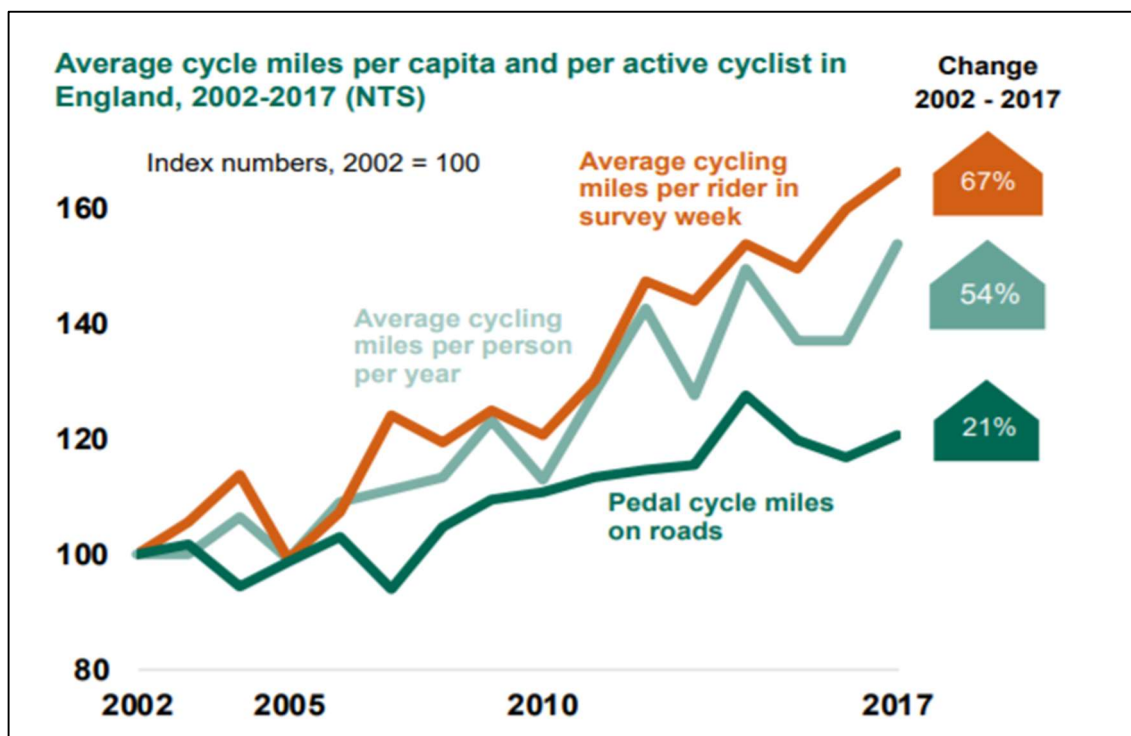
The reduction in congestion will also reduce the impact of noise at the location. Less queuing traffic along with reduced vehicle speeds will lead to a reduction in noise from vehicles. This will improve the environment within the local area and further improve the well-being of local residents.

Cyclists are also a regular road user of this location that has been involved in a number of collisions. As highlighted in the graph below there has been a steady increase in the miles covered per cyclist since 2002 through to 2017. A number of collisions which occurred at the proposed scheme location involved cyclist, collisions would likely increase at this location, with cycling and number of vehicles increasing. Having a 'walk with traffic' and 'ahead only' movement signalled junction will allow cyclist to confidently facilitate their route through this location. Local residence would be encouraged to cycle to their wider route as assurance of their safety when facilitating this present known collision hotspot would be far more positive due to the new proposed road layout.



The below figures further highlights a change in culture, where more and more cyclist are now using this form of transport as part of their daily commute to work. The increase in average miles cycled would highlight that this activity will be increasing. The average cycling miles on road has also increased by a steady level. Average cycling miles per person per year has also increased. The new signalised junction will enable more cyclists to confidently facilitate this section of the highway, whereas presently there is a number of incidents taking place which involve cyclist, as the existing road lay out does not sufficiently protect cyclist from collisions at the cross road junction.

**Figure 7: Average cycle miles**



**SECTION TO BE COMPLETED BY THOSE APPLYING UNDER THE COMMUNITY AND INDIVIDUAL SAFETY, HEALTH AND CAPACITY CORE OUTCOME ( red headings, three page maximum )**

**Q17: Have existing service assumptions been challenged and how? What degree of innovation does the proposal display?**

The scheme will tackle a part of the road network which suffers from consistently high collision rates, often involving personal injury to road users. The new road configuration will significantly reduce collisions and injuries from a current rate of 5 per year to around 0.4 per year, as highlighted previously this is reduction has been based on the average number of collisions at signalised junctions across Warwickshire.

The junction has been the subject of an accident investigation report which highlighted the

vulnerability of car users, cyclist and pedestrians at the junction, the majority of collisions arise from failure to give way at the existing cross roads. The current layout is not fit for purpose with the level of traffic entering or leaving this junction to access their wider route.

For pedestrians, the new layout enables 'walk with traffic'. This will enable local residents to access high street via this crossing facility. Pedestrians knowing that there will be no right or left turning vehicles conflicting with their walking route will encourage local resident to use walking as form of transporting themselves to the town centre. A reduction in congestion will help to improve air quality for local residents. All of these improvements tie in with the Council's One Organisational Plan (OOP2020) drive to create safe, independent and healthy communities.

The benefits to the community may also be measured directly through a reduction in personal injury collisions at the site. In addition, the local community will benefit from not living with and driving through a known casualty hotspot. The broader Coleshill community will benefit from a decrease in congestion at this location.

Once completed the scheme will be added to the Traffic and road safety completed scheme database and analysis will be carried out after a period of three years and five years to establish collision numbers following the implementation of the scheme. The forecast collision rate following completion of this scheme is an average of 0.4 per year a reduction from the current baseline value of 5 per year. This analysis will be used to inform future Road Safety intervention strategy.

As part of the Vectos modelling package, a benefit to cost ratio (BCR) was carried out on the proposed scheme. The BCR takes into consideration the initial cost layout of the scheme, in relation to the proposed benefits achievable for the road users. Attached separately the highlighted cost benefits are shown taking into consideration all stakeholders using this road. For the signalised junction scheme a positive BCR of 6.16 was established based on the projected cost of scheme of £376,000.

DfT's guidance (summarised below) classifies a BCR in this range as 'Very High' Value for Money (VfM).

- Poor VfM if below 1.0
- Low VfM if the BCR is between 1.0 and 1.5
- Medium VfM if the BCR is between 2.0 and 4.0
- High VfM if the BCR is greater than 4.0
- Very High VfM if the BCR is greater than 4.0

**Q18: How have community stakeholders been involved in the decision-making process? Provide evidence of demand for the project (e.g. from local residents, employees or business) in an appendix.**

The new layout will have positive benefits for local residents who will no longer be hindered by congestion as a result of traffic movements being controlled and collisions

being significantly reduced. All road users will benefit from a safer, free-flowing junction with users significantly less prone to injury collisions. The provision of a new pedestrian refuge will assist pedestrian movements in the area and promote walking. This will be beneficial for residents accessing the centre of Coleshill through this crossing facility, allowing easier access on to High Street.

Businesses will feel the benefit of an efficient and less collision prone junction, thereby allowing successful, on-time deliveries as well as their staff to get to their place of employment in a timely manner via easier access to A446.

This positive impact on economic growth meshes with the Council's OOP2020 which states that "Warwickshire's economy is supported by the right jobs, training and skills infrastructure". The improvements to the road layout will make the area a more attractive place to do business with a strong local economy and infrastructure and ensure that our communities and businesses are thriving and prosperous.

Historically the Council have received many requests to address congestion and safety at the Green Man crossroads. During the period 2006-2009 the Council, with Coleshill Town Council, Coleshill Business Action Group and Warwickshire Police formed Coleshill Traffic Management Group to consider issues relating to traffic in Coleshill town. The primary focus of the concerns related to the Green Man crossroads. The group failed to identify a workable solution which could address traffic flows as well as road accident collisions at this location, the extensive modelling which has now taken place has enabled live traffic flows to be monitored and collisions causes to be addressed.

County Councillors Reilly and Hayfield have championed the need for a scheme to be identified at the Green Man crossroads to address safety, congestion and severance issues. They have been involved throughout the development of the scheme and identify that the signalised junction would be beneficial to the local community through addressing safety and severance issues in the town centre.

An initial meeting with the police which addresses concerns about this location. They are in agreement that the ahead only signalised junction addresses the safety concerns which have been raised in the past.

Further community engagement will be undertaken through proposed public information exhibitions and TRO consultation whereby all statutory consultees will be informed of any road layout changes that will affect the location.

**Q19: What external factors determine the outcomes of the project and how have these risks been mitigated?**

The location has been identified as it has experienced a high number of injury collisions for some time. The collision numbers for the previous five years to the data used within this report show a similar number of collisions.

The main risk to the project as with any highways engineering scheme is that the anticipated reduction of personal injury collisions does not reduce following the installation of signalised traffic lights. This would not provide the stated anticipated benefits to reducing personal injury collisions. To mitigate this, research has been carried out in relation to the impact of signalised traffic lights across Warwickshire to determine the reductions experienced in real-life conditions.

In an engineering scheme of this size, with the implementation of traffic signals, There would be an anticipated increase of vehicles driving through High street, as their will be no facility for right or left turning on to Birmingham/Blythe Road which could possibly have an impact on the network flow of traffic. Vectos Microsim traffic modelling has assessed this scenario in the below table.

**Figure 8: Model Scenarios in 2020 and 2024**

Year	Period	Scenario	Completed Trips	Mean Dist. (km)	Mean Speed (km/h)	Mean JT (secs)
2020	AM	Reference	79,340	4.2	67.8	224.4
		Scheme	79,340	4.2	68.5	222.2
	PM	Reference	81,107	4.2	67.5	220.0
		Scheme	81,107	4.2	67.4	222.8
2024	AM	Reference	82,129	4.2	62.6	243.1
		Scheme	82,124	4.2	63.2	241.3
	PM	Reference	84,101	4.2	61.4	244.2
		Scheme	84,102	4.2	61.5	244.3

The above results indicate a reduction in delay time for the AM period in the year 2020 and 2024 assessment. Presently the majority of the collisions occurred during peak time AM traffic. Therefore as well as an anticipated reduction in collisions at this location, the actual delay time is estimated to be lower during the same time period at which collisions are most likely to occur.

There is also the possibility of pressure from major housing development. The increase in number of houses within this location would put pressure on to the Green man junction. However the scheme would still mitigate the impact compared to its present layout.

**FOR EXISTING COMMUNITY AND INDIVIDUAL SAFETY, HEALTH AND CAPACITY SCHEMES**

**Q20: Why have costs increased and why was this not foreseen in the original CIF bid? (one page maximum, provide appendices if needed)**

**Q21: What options for alternative funding or changing the scope of the project have been considered? Could the project be stopped?**

**Q22: What is the risk of further cost increases and how will these be prevented?**

**SECTIONS TO BE COMPLETED BY THOSE APPLYING UNDER THE ECONOMIC VIBRANCY CORE OUTCOME (blue headings, three page maximum)**

**Q23: What degree of innovation does the proposal display? Have existing service assumptions been challenged and how?**

**Q24: How have community stakeholders been involved in the decision-making process? Provide evidence of demand for the project (e.g. from local residents, employees or business) in an appendix.**

**Q25: What external factors determine the outcomes of the project and how have these risks been mitigated?**

**FOR EXISTING ECONOMIC VIBRANCY SCHEMES**

**Q26: Why have costs increased and why was this not foreseen in the original CIF bid? (one page maximum, provide appendices if needed)**

**Q27: What options for alternative funding or changing the scope of the project have been considered? Could the project be stopped?**

**Q28: What is the risk of further cost increases and how will these be prevented?**

**SECTION TO BE COMPLETED BY THOSE APPLYING UNDER THE BEST USE OF RESOURCES  
CORE OUTCOME (green headings, three page maximum)**

**Q29: What is the financial return to the organisation, and is it cashable? What are the key assumptions and what is the sensitivity of the return to changes in those assumptions? Include here or in appendices information about relevant calculations such as Rol, NPV, payback etc. Include a 20-year annual net cashflow in an appendix, including .any revenue cost/saving impacts.**

Empty response area for Q29.