

**LOCAL AUTHORITY MAJOR SCHEMES
BEST AND FINAL FUNDING BID
SEPTEMBER 2011**

Scheme Name	Lincoln Eastern Bypass
Local Authority	Lincolnshire County Council

SCHEME COST SUMMARY (£m)

	Scheme As Previously Configured (from Section 1.4)	Revised Scheme (from Section 4.4)
LA contribution	£12.954	£13.596
Third Party Contribution	£9.620	£32.312
DfT Funding Contribution	£116.588	£49.950
Total	£139.163	£95.858

CONTACT DETAILS FOR FURTHER ENQUIRIES

Lead Contact: Position: Tel: E-mail:	David Skeet Senior Project Leader – Technical Services Partnership 01522 555585 david.skeet@lincolnshire.gov.uk
Alternative Contact: Position: Tel: E-mail:	David Walton Client Services Manager – Technical Services Partnership 01522 552935 david.walton@lincolnshire.gov.uk

NOTE: Bids should be received by the Department by Noon on 9th September 2011.

SENIOR RESPONSIBLE OWNER DECLARATION

As Senior Responsible Owner for Lincoln Eastern Bypass I hereby submit this Best and Final Funding Bid to DfT on behalf of Lincolnshire County Council and confirm that I have the necessary authority to do so.

Name: **Paul Coathup**

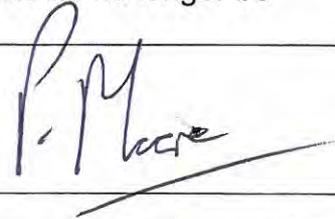
Signed:

Position: **Assistant Director
(Highways & Transportation)****SECTION 151 OFFICER DECLARATION**

As Section 151 Officer for Lincolnshire County Council I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that Lincolnshire County Council has the intention and the means to deliver this scheme on the basis of its proposed funding contribution at section 4.3 (a) above, as well as meeting any ongoing revenue requirements on the understanding that no further increase in DfT funding will be considered beyond the maximum contribution requested at 4.3 (c) (including if third party contributions should no longer be available).

Name: **Pete Moore
Director of Resources &
Community Safety**

Signed:



Please Note: The promoting authority should ensure that a copy of this BAFB form and all supporting information is available on its website by 5pm on 12 September 2011.

Please detail the appropriate location where these documents can be located. The Department may provide a link to these pages from its own website.

www.lincolnshire.gov.uk/leb

SECTION 1: THE SCHEME AS PREVIOUSLY CONFIGURED

i.e. BEFORE 10 JUNE 2010

This section should EITHER describe the scheme as approved at Programme Entry OR as submitted in a business case bid for Programme Entry OR on the latest design on which the last QMR submitted to the Department was based.

Note: this information should be consistent with what was included in previous EoI with any differences explained.

Date of Programme Entry or PE Bid or last QMR Submission <i>(where applicable)</i>	November 2009
Estimated total scheme cost <i>(inclusive of eligible preparatory costs)</i>	£139.163m
DfT contribution	£116.588m
Local Authority Contribution <i>(excluding the costs of any Part 1 Claims that you may have included at this time)</i>	£12.954m
Third party contribution	£9.620m

1.1 Brief description of the scheme as previously configured *This should clearly state the scope of the scheme and describe all of its key components.*

The Lincoln Eastern Bypass (LEB) will be a key element of the Lincoln Transport Strategy (LTS) and will be located to the east of Lincoln City Centre within the Eastern sub-area of the East Midlands region (see Figure 1 and Figure 2, Appendix 1). The City of Lincoln is the county town of Lincolnshire and its continued economic success is important not just in a local context, but also for the county and the wider East Midlands region. Over three million people visit the city every year, particularly drawn by the historic cathedral and castle, as well as the new state-of-the-art City and County Museum known as 'The Collection'. The expansion of the University and Lincoln's status as a New Growth Point has seen Lincoln's national profile rise significantly in recent years.

Lincoln's city centre currently suffers from high levels of congestion from local and strategic traffic movements which impacts on the quality of life for local residents, acts as a constraint on the economy and reduces the attractiveness of the city for visitors and investors. The lack of alternative river crossings means that strategic traffic, including large numbers of long distance HGVs (8% of traffic in the City Centre) is concentrated on the A15 within the City Centre. This intrusion of strategic traffic in the City Centre has been identified as a key constraint on Lincoln's continued success and a key driver for the promotion of the Lincoln Transport Strategy, including LEB.

In addition to these factors it is also important to note that significant housing and economic development is targeted for the Lincoln area and in July 2008, Lincoln was afforded Growth Point status by the Government. Regional and Local housing targets are for an additional 25,000 dwellings within the Lincoln area by 2026 of which the North East and South East Quadrant development sites and the Western Gateway Corridor located to the east of Lincoln are key to the delivery of these growth aspirations. These urban extensions have the potential to accommodate a significant level of development within the Lincoln area and the Transport Strategy (including LEB) will be necessary to facilitate and support their delivery. In a sustainable form. The Objectives of the LTS are described in full in Section 1.2 of this BaFB.

The Lincoln Transport Strategy therefore is considered to be necessary to alleviate the problems caused by congestion and support the delivery of national and local policy agendas identified for Lincoln up to 2026. The Transport Strategy includes a large number of sustainable transport measures designed to improve conditions in the City and to assist businesses with their economic growth strategies. However, analysis has shown that LEB will be required to underpin the successful delivery of the other measures in the Strategy by removing extraneous traffic from the centre and creating the conditions necessary for their implementation.

For clarity, all the other elements of the Lincoln Transport Strategy will be funded by the Local Authority

working with private sector partners. The bid to DfT was (and remains) only for funding for the element of the strategy.

The LEB scheme as at programme entry proposed a highway link between the A15 to the south east of the city and the A158 Northern Relief Road to the north east of the city. Specifically it comprised of the following elements:

1. A 7.5km dual carriageway with a 70mph speed limit, linking the existing Northern Relief Road at the junction of the A15 and A158 Wragby Road in the north to the A15 Sleaford Road in the south.
2. A separate 3.0m wide combined cycle and pedestrian right of way provided along the full length of the scheme to link up with existing public rights of way and additional provisions for equestrians in the form of a widened verge.
3. A new four arm roundabout constructed at the A158 Wragby Road / A15 junction, the scheme also included an overbridge to carry Hawthorn Road over the LEB.
4. A four arm roundabout at Greetwell Road. A pedestrian / cycle bridge would be provided over the scheme, to the north of the roundabout.
5. A new structure over the Lincoln to Market Rasen Railway
6. A five span viaduct to carry the LEB over the River Witham and the adjacent watercourses.
7. An underpass under the Lincoln to Spalding Railway and a four arm roundabout connecting the LEB to the B1190 Washingborough Road.
8. An overbridge over Heighington Road and a four arm roundabout at its junction with the B1188 Lincoln Road.
9. A pedestrian / cycle underpass was proposed to cross the scheme just north of the roundabout junction with the B1188 Lincoln Road.
10. A new three arm roundabout formed at the junction with the A15 Sleaford Road, south of Bracebridge Heath. Bloxholm Lane to the east of the scheme would be diverted to join Sleaford Road at the roundabout. A bridleway bridge would cross over the scheme to link both sections of Bloxholm Lane.

In total the LEB as previously configured contained five junctions, these were:

1. A158 Wragby Road roundabout;
2. Greetwell Road roundabout;
3. B1190 Washingborough Road roundabout;
4. B1188 Lincoln Road roundabout; and
5. A15 Sleaford Road roundabout.

The construction of the LEB as previously configured also included 10 structures between the A158 Wragby Road junction and the A15 Sleaford Road junction including:

1. Three overbridges;
2. Two underbridges;
3. Three pedestrian / cycleway bridges;
4. One pedestrian / cycleway underpass; and
5. One retaining wall.

Scheme at the Expression of Interest

The scheme was reviewed at the Expression of Interest Stage and a revised proposal was put forward. The review identified that a single carriageway LEB would offer significant cost savings without impacting on the ability to deliver the overall scheme objectives or reducing the scheme's effectiveness. In addition to the reduction to a single carriageway scheme, the EoI also identified a number of areas where the scheme has been further altered from the initial programme entry scheme design to further reduce the

overall costs, these were:

- The treatment of side roads and radial routes which will cross the route have been reconsidered with regard to the size and type of junctions provided along the route.
- The Greetwell Road Junction improvement has been omitted from the scope of works.
- A reduction in design speed in order to reduce the earthworks costs associated with the initial scheme design.

1.2 What are/were the primary objectives of the scheme?

Please limit this to the primary objectives (ideally no more than 3) the problems to which this scheme is the solution. If the primary objectives have changed please explain why. Do not include secondary objectives i.e. things to which the scheme will contribute.

The primary objectives of the LEB are those of the Lincoln Transport Strategy. The LTS was developed in response to the recognition of the fundamental role that transport will play in the future economic growth of Lincoln. Lincolnshire County Council and its partners (the District Councils of North Kesteven, West Lindsey and the City of Lincoln) commissioned the Lincoln Transport Strategy in 2004 to identify and prioritise the delivery of transport improvements across the Lincoln Policy Area (LPA) up to 2026.

The LTS was developed as a live strategy that is able to accommodate changes in local, regional and national policy and as such has been reviewed and updated periodically, with the latest version being approved by LCC and partners in 2010. It was and continues to be developed in line with best practice guidance using a problem and policy driven approach for the identification, appraisal and prioritisation of transport improvements. As such it is very well aligned with the DfT's WebTAG appraisal framework.

As part of the process, the strategy formulated a range of objectives and solutions in response to a number of identified transport challenges facing the area, of which the LEB was a key solution. The LTS recommends that even with the introduction of alternative modes such as public transport and non-motorised user facilities there is still a requirement for the introduction of the LEB in the short-term if the aspirations of the LTS are to be achieved. Indeed, many of the desirable sustainable transport elements of the LTS could not be delivered without the relief from traffic that LEB will afford.

As the LEB is identified as a key element of the LTS, in order to promote a consistent approach to the decision making within the LPA, the scheme objectives for the LEB remain consistent with those identified as part of the LTS. Therefore the primary objectives for the scheme remain as follows:

- **Objective 1:** To support the delivery of sustainable economic growth and the Growth Point agenda within the Lincoln Policy Area through the provision of reliable and efficient transport infrastructure.
- **Objective 2:** To improve the attractiveness and liveability of central Lincoln for residents, workers and visitors by creating a safe, attractive and accessible environment through the removal of strategic through traffic (particularly HGVs).
- **Objective 3:** To reduce carbon emissions, improve air and noise quality within the Lincoln Policy Area, especially in the Air Quality Management Area in central Lincoln, by the removal of strategic through traffic (particularly HGVs).

1.3 Please describe the process by which this scheme came to be the preferred option for meeting those objectives including reasons why alternatives were not progressed.

This may simply be an extract from what has already been described in previous Major Scheme Business Cases. However please take the opportunity to expand on that previous material as necessary.

The development of the LEB has a long history but the current scheme proposal is the result of a staged process to develop a future facing transport strategy for the Lincoln area. The Lincoln Transport Strategy defined the key transport challenges facing the Lincoln area and the interventions required to improve transport and travel within and through Lincoln. Specifically this resulted in the formulation and appraisal of a number of potential transport schemes and interventions including the LEB.

As part of the initial work to develop the Lincoln Transport Strategy, the early stages identified a number

of strategic objectives that tackled issues connected to the public transport network, local and strategic highway network, sustainable transport, safety, air quality and the environment and economic growth. The process also assessed all existing transport issues and forecast problems that affected the Lincoln Policy Area across a number of transport modes. These were formulated through a combination of extensive consultation and technical outputs from the Lincoln Saturn model. The process highlighted that the majority of issues and problems identified, centred on congestion, lack of route choice, high volumes of strategic traffic and poor air quality.

The next stage of developing the strategy involved the identification, evaluation and classification of potential transport interventions. The initial options were developed through liaison with key stakeholders, the technical analysis of key issues and the consideration of 'historic' ideas. The result of this was identification of 18 potential transport interventions. These were further refined through evaluating each against the strategic objectives, their ability to address the identified transport challenges, cost and public acceptability. The results of the evaluation placed the LEB in primary position in terms of score based on contribution towards the strategic objectives, the transport problems and issues and national transport objectives. Specifically the appraisal process resulted in a prioritised list of potential options to be included within the LTS. These included the LEB, Quality Bus Corridors, Lincoln East West Link, Lincoln Southern Bypass, Park & Ride and a City Centre Parking Strategy.

To further refine and develop the potential interventions, a consultation exercise was undertaken for the emerging LTS. A leaflet was distributed to a sample of households who were asked to prioritise a range of transport interventions, this resulted in the following prioritised list:

1. A Lincoln Eastern Bypass
2. Improved pedestrian and cycle network
3. Improved City Centre parking
4. High Quality bus services
5. The provision of Park & Ride
6. A new bus station
7. A Lincoln Southern Bypass

A key output from the consultation exercise, was that the LEB was set as a key short term improvement. Further option testing was carried out using the Lincoln traffic model to test options against their ability to solve key problems associated with high levels of traffic within Lincoln town centre and also contribute to the overall Strategic Objectives. These included testing the quality bus corridors option, park and ride, Lincoln Southern Bypass and the LEB as they were assessed as likely have the most significant impact in solving the key problems and achieving the overall objectives. The other options explored were considered to not have the same impact due to their scale or would likely achieve fewer of the overall objectives.

Based on the remaining four schemes a total of 10 different scenarios were tested using the Lincoln Model. This assessed their economic impact and benefit to cost ratio, as well as each scheme's impact on journey times and traffic flows. The results of the assessment revealed that in isolation the QBCs and Park & Ride schemes and LSB had a minimal or lesser impact. However, where these initiatives were implemented alongside the LEB the improvement to journey times and traffic flows was significant.

The County Council has adopted the LTS and has been implementing, and reviewing, the strategy through its LTP processes. Notably, many of the improvements for pedestrians, cyclists and buses have been delivered through the Community Travel Zone (CTZ) programme. However, further significant advances in delivering the benefits of the strategy depend on the removal of through traffic from the City centre.

Therefore, the LEB remains a key part of the Lincoln Transport Strategy and a key priority for Lincoln. The scheme is integral to the work addressing the transport challenges facing Lincoln and is fundamental to achieving the LTS's strategic objectives. It is important to emphasise that the process of developing the LTS demonstrated that the other transport interventions would not have the same impact without the implementation of the LEB. The LTS process demonstrates the importance of the LEB in addressing the existing and future transport challenges facing Lincoln and the Lincoln Policy Area. A further detailed description of the development of the LTS and alternative interventions can be found in Appendix 11.

1.4 What was the last total estimated cost of the scheme as previously configured including where changed since the award of Programme Entry?

Please provide the latest cost of the scheme with a summary and where, appropriate, an explanation of the key changes from the previous cost breakdown. Please use this section to identify any cost savings that you have already made since the award of Programme Entry. Figures should be outturn costs. Please adjust to exclude the costs of any Part 1 Claims that you may have included at this time.

The funding profile and total scheme costs as detailed in November 2009 at the Programme Entry MSBC stage were as follows:

£m	Pre 2011 /12	2011 /12	2012 /13	2013/ 14	2014/ 15	2015/ 16	2016/ 17	2017/ 18	2018/ 19	Total	%
LA contribution	£0	£0	£0	£0.182	£2.434	£4.261	£4.149	£1.928	£0	£12.954	9.3
Third Party contribution	£0	£0	£0	£0.000	£3.207	£3.207	£3.207	£3.207	£0	£9.620	6.9
DfT funding requested	£0	£0	£0	£1.637	£21.910	£38.347	£37.341	£17.353	£0	£116.588	83.8
TOTAL	£0	£0	£0	£1.819	£27.551	£45.815	£44.697	£19.281	£0	£139.163	

1.5 Please describe any developments (such as housing) linked with the scheme as described above and explain any changes impacting on these developments (eg policy changes such as housing allocations, changes to redevelopment plans)?

This should explain any links that the planned scheme had to major developments and provide details of changes to these plans such as through changes in policy relating to housing, changes to developer plans etc.

As described in section 1.1, the North East and South East Quadrant and Western Gateway Corridor are considered key blocks in Lincolnshire County Council's growth aspirations and areas that are fundamental parts of the plan to meet the regional housing targets and the Growth Point aspirations of Lincolnshire. Despite the removal of the Regional Spatial Strategies in July 2010 the Central Lincolnshire Joint Strategic Planning Committee continue to support North East and South East Quadrants and Western Gateway Corridor (see Figure 3 in Appendix 1) as priority locations for development and the LEB remains one of the key facilitators of these development plans. It is important to note that the LDF and Core Strategy will be published in 2012/2013 and will be subject to public examination. These documents will provide further details of the primary development aspirations of the Lincoln Policy Area.

SECTION 2: REVISED SCHEME PROPOSAL

This section should describe the changes you are proposing to make for the purposes of your Best and Final Funding Bid.

2.1 Are you proposing any changes of scope from the scheme as described in Section 1? *If yes, please describe in detail the changes you are proposing. Please also attach explanatory maps, diagrams etc. as appropriate.*

There are a number of significant changes to the LEB scheme to that proposed within the Major Scheme Business Case at Programme Entry. It is now proposed to provide a single carriageway scheme with a reduced design speed, specifically the changes to the scheme are as follows:

- Single carriageway within redline planning boundary to reduced design speed (85kph).
- Hawthorn Road Junction to be reduced to a left in left out junction.
- Single carriageway viaduct over the Lincoln to Market Rasen Railway Line
- Single carriageway bridge over the River Witham
- Single carriageway bridge under the Lincoln to Spalding Railway Line
- Climbing lane introduced on southbound exit from Wasinghborough roundabout
- 8% gradient introduced within climbing lane on southbound exit from Wasinghborough roundabout to minimise depth of the cutting.
- Reduced width on Heighington Road overbridge.

A full description of the design considerations and value engineering process is provided in Appendix 2.

Revised Lincoln Eastern Bypass Profile (North to South)

The summary below provides an overview of the profile of each section of the revised LEB scheme including the main structures contained within each section; Figure 4 (Appendix 2) details the location and alignment of the LEB. The sheet numbers (e.g. 1030171-100-18A) relate to the scheme drawings provided in Appendix 2 and describe the LEB route from north to south.

1030171-100-18A: From Wragby Road Roundabout (0m to 1500m from Wragby Road Roundabout)

- Hawthorn Road East to be a left in left out junction with a splitter island to prevent a right turning manoeuvre. This replaces the Hawthorn Road overbridge.

1030171-100-19A: 1500m to 3000m

- Greetwell Road Roundabout
- Greetwell Road Footbridge
- Lincoln to Market Rasen Railway Underbridge
- River Witham Underbridge
- Lincoln to Spalding Railway Overbridge
- South Delph Footbridge

1030171-100-20A: 3000m to 4500m

- Climbing lane introduced on southbound exit from Wasinghborough roundabout
- 8% gradient introduced within climbing lane on southbound exit from Wasinghborough roundabout to minimise depth of the cutting.
- Heighington Road Overbridge

1030171-100-21A: 4500m to 6000m

- Lincoln Road Roundabout
- Lincoln Road Subway

1030171-100-22A: 6000m – 7500m

- Bloxham Lane Footbridge
- Sleaford Road Roundabout

Importantly, great care has been taken to ensure that the scheme creates the least possible intrusion in the landscape, by making best use of the existing topography to minimise visual

intrusion. Existing views of the Cathedral from the east of the City will be largely maintained and the new road itself will blend well into existing views looking east.

2.2 What, if any, additional changes of scope have you ruled out for the purposes of your Best and Final Funding Bid? Please give reasons.

There were no additional changes in scope proposed as part of the LEB Best and Final Bid. The objectives and scope of the scheme remain those of the Lincoln Transport Strategy and part of the wider sustainable economic growth aspirations of the Lincoln Policy Area. Any further changes in scope would ultimately impact on the schemes primary objectives and their relationship with the Lincoln Transport Strategy.

2.3 Whether or not you are proposing a change of scope, please identify any savings that have been made to the total cost of the scheme, for example through value engineering.

Please provide details with a summary and explanation of the further savings beyond those already identified at 2.1 above or, if no scope changes are proposed, with reference to the cost breakdown provided in the latest cost estimate at 1.4 above.

Following the submission of the EoI an exercise was undertaken to assess all possible changes in scope and value engineering options in order to develop the most effective solution in relation to the overall scheme objectives, the wider aims of the Lincoln Transport Strategy and the value for money objectives. The exercise considered:

- i) a partial dual carriageway,
- ii) removing the proposed NMU route;
- iii) reducing/removing lighting across the length of the route;
- iv) reducing the length of the route,
- v) single carriageway with future proofed structures for dualling in the future; and
- vi) single carriageway with single carriageway structures.

An assessment was undertaken for these options but all except vi) were discarded on the basis of feasibility, value for money, or contribution to scheme objectives. Option vi) is now being taken forward as the revised LEB scheme. The table below provides a profile of the savings resulting from the reduction of the LEB to a single carriageway scheme and the Design Considerations report in Appendix 2 provides full details of all design considerations that formed part of the value engineering process.

Total Scheme Costs			
Scheme Element	MSBC Base Cost (£m)	BaFB Single Carriageway LEB Base Cost (£m)	Saving (£m)
Works Costs	£86.108	£55.855	£30.253
Land Costs	£9.146	£6.983	£2.162
Ancillary/Advanced Works Costs	£2.227	£2.227	£0
Statutory Undertakers Costs	£1.519	£1.519	£0
Rail & Local Authority Costs	£0.586	£0.586	£0
Preparation Costs	£5.192	£5.192	£0
On Site Supervision & Testing	£3.686	£3.343	£0.343
Quantified Cost Element			
Base Cost	£108.464	£75.705	£32.758
QRA	£7.649	£5.186	£2.463
Inflation	£23.051	£14.967	£8.084
Total	£139.164	£95.858	£43.305

2.4 Please provide separate details of any further changes you are proposing to the scheme from that submitted in January 2011.

There are no further changes proposed from those submitted at the Expression of Interest.

2.5 What is your latest assessment of the cost, feasibility and value for money of any alternatives to the proposed scheme?

This should include any previous options subsequently discarded and / or those proposed by third parties. Please explain why this / these options have not been progressed. Please detail any elements that have been included in your proposed scheme. Please make reference to any material differences with the preferred scheme in costs or benefits such as carbon impacts.

There are no known interventions proposed by any other parties that have been put forward as a viable alternative to the Lincoln Bypass. However, it is important to note that the LEB is the culmination of a detailed and rigorous process that identified the major transport problems that affect Lincoln and the Lincoln Policy Area, appraised a wide range of possible transport interventions and formulated the Lincoln Transport Strategy (LTS). It is also important to emphasise that this process developed the blueprint for tackling the transport challenges impacting on the Lincoln area. As part of the process of identifying the potential interventions available, the LEB emerged as the primary and key intervention and an integral part of the LTS. Appendix 11 summarises the formulation of the LTS and the alternative transport options and interventions explored as part of the strategy's development.

SECTION 3: IMPACT OF CHANGES PROPOSED AND DELIVERY OF THE SCHEME

This section should describe the impact of the changes you are proposing in Section 2 above compared to the previously configured scheme as described in Section 1

3.1 What impact, if any, would the proposed changes have upon achievement of your primary objectives? *This should refer to the scheme as identified in section 2.1*

The proposed changes will not impact on the overall primary aims and objectives of the scheme. As discussed in Section 1.2 the scheme is a key element of the Lincoln Transport Strategy which has been developed to facilitate sustainable economic growth and improve the environment in Lincoln. As described, as a consequence of a lack of alternative routes to the A15 within the city centre, Lincoln currently suffers from high levels of congestion from local, regional and strategic traffic. Significantly Lincoln experiences high volumes of Heavy Goods Vehicles and long distance traffic travelling through the city centre and a significant level of pedestrian severance between residential areas located in around Lincoln and the city centre. This impacts on the quality of life for local residents, acts as a constraint on the economy and reduces the attractiveness of the city for visitors and investors.

The revised proposal to provide a new single carriageway linking the existing Northern Relief Road at the junction of the A15 and A158 Wragby Road in the north to the A15 Sleaford Road in the south would still provide an appropriate route for extraneous traffic and allow the County Council, in cooperation with its partners, to “Lock in” a range of benefits for the community. The provision of the LEB will remove a significant proportion of through traffic from Lincoln city centre (reducing flows on key routes by up to 20%) and allow the County Council to introduce further traffic management measures and infrastructure improvements, improving conditions for users of the city including businesses, residents and visitors. As such the LEB is an important part of the Transport Strategy for the Lincoln Area and the LEB is considered to be a necessary piece of infrastructure to alleviate the above problems and support the delivery of national and local policy agendas identified for Lincoln up to 2026.

The changes to the scheme will still allow the previous primary scheme objectives to be achieved, and these have remained constant throughout the development of the LEB scheme. Therefore as previously described the scheme objectives remain as follows:

Objective 1: To support the delivery of sustainable economic growth and the Growth Point agenda within the Lincoln Policy Area through the provision of reliable and efficient transport infrastructure.
How achieved by Revised Scheme: *will facilitate sustainable development by improving access to potential growth areas and underpinning the Lincoln Transport Strategy which will deliver more sustainable and reliable transport options in the area. Local employers have confirmed the potential for job creation and increased economic activity.*

Objective 2: To improve the attractiveness and liveability of central Lincoln for residents, workers and visitors by creating a safe, attractive and accessible environment through the removal of strategic through traffic (particularly HGVs).
How achieved by Revised Scheme: *will remove up to 20% of traffic from key routes in the City Centre (including significant HGV traffic) and allow LCC and its partners to “lock in” benefits for sustainable transport and the environment in the City.*

Objective 3: To reduce congestion, carbon emissions, improve air and noise quality within the Lincoln Policy Area, especially in the Air Quality Management Area in central Lincoln, by the removal of strategic through traffic (particularly HGVs).
How achieved by Revised Scheme: *will remove up to 20% of traffic from City Centre (including significant HGV traffic) and analysis (see below) concludes that carbon emissions will be reduced and air and noise quality will be improved.*

3.2 Please provide a short description of your assessment of the value for money of the revised scheme including your estimate of the Benefit Cost Ratio. *This should cover both monetised and non-monetised costs and benefits and should briefly*

explain the reasons for significant changes since your most recent Business Case submitted to the Department. The full assessment, as set out in the Value For Money guidance should be provided as an Appendix. Valuation of any dependent development should be reported here, separately from the central value for money evidence and supporting evidence, and a full description of the approach taken should be included in the Appendix.

As part of the Best and Final Bid process the value for money of the LEB single carriageway scheme has been assessed using the significantly revised Greater Lincoln Transport Model. A considerable amount of work has been undertaken to improve the Greater Lincoln Transport Model as described in Briefing Note Number 2 submitted to the DfT on 09/05/2011 and this has been used to develop this robust value for money assessment of the revised single carriageway LEB. The Value for Money of the scheme is summarised within this section and the full assessment and all supporting and background documents can be found in Appendix 3, specifically Appendix 3 includes the following sections:

Section	Area	Appraisal
Section 1:	Economic Appraisal	TUBA, COBA, QUADRO, Sectoral TEE Analysis, WITA
Section 2:	Appraisal Summary	Noise, Air Quality, Heritage, Hydrology, Biodiversity, Landscape & Townscape, Physical Fitness, Journey Ambience, Safety, Public Accounts, TEE, Reliability, Severance, Land Use Policy, Other Government Policy. Appraisal Summary Table.
Section 3:	Supporting Documents - Modelling Reports	Traffic Surveys Report LMVR Demand Model Report Forecasting Report

Lincoln Eastern Bypass – Economic Appraisal Summary

The economic appraisal of the scheme follows the guidance outlined by the Major Scheme Business: Value for Money Guidance for Development Pool Schemes note provided by DfT and relevant WebTAG modules to ensure that a robust assessment is made. Specifically the appraisal has utilised the following software:

- Transport User Benefit Appraisal (TUBA v1.8)
- Cost Benefit Analysis (COBA v11.12)
- Queues & Delays at Roadworks (QUADRO v4.8)

According to “Guidance on Value for Money” from DfT, a scheme is generally categorised as having ‘Poor’, ‘Low’, ‘Medium’ or ‘High’ value for money based on the calculated values of Benefit to Cost Ratio (BCR). DfT advises whether or not a scheme should be funded based, amongst other considerations, on the value of the BCR. Details of the BCR ranges and the corresponding value for money and approval categories are shown in the table below.

BCR Values	Value for Money Category	Approvals
BCR less than 1.0	Poor Value for Money	No projects
BCR from 1.0 - 1.5	Low Value for Money	Very few projects
BCR from 1.5 - 2.0	Medium Value for Money	Some, but by no means all, projects
BCR over 2.0	High Value for Money	Most, if not all, projects

TUBA Assessment

The TUBA assessment produces a Transport Economic Efficiency table which presents the monetised benefits of the scheme and a Public Accounts table that presents the monetised costs of the scheme for the 60 year period being assessed. In line with WebTAG guidance optimistic and pessimistic scenarios have been assessed to demonstrate the robustness of the scheme performance under a range of demand and intervention assumptions. The development of each scenario is based on the uncertainty logs and reflects those factors that could have an impact on the Lincoln Policy Area and on the LEB scheme. The results of the TUBA calculation across all three scenarios excluding accident and maintenance benefits, is summarised in the table below.

Cost and Benefits	Scenario		
	Pessimistic	Core	Optimistic
Economic Efficiency	Benefits (£m)		
Consumer User (Commute)	118,750	123,687	132,352
Consumer User (Other)	322,537	325,999	323,113
Business User and Provider	252,478	256,065	268,842
Indirect Tax Revenue	9,742	10,392	12,036
Carbon Benefits	4,526	4,929	5,356
Present Value of Benefits (PVB)	688,549	700,288	717,627
Broad Transport Budget			
Investment Costs	68,532	68,532	68,532
Present Value of Costs (PVC)	68,532	68,532	68,532
Overall Impacts			
Net Present Value (NPV)	620,017	631,756	649,095

It can be seen that for all three scenarios, LEB generates major discounted benefits, in the order of £700m, well in excess of the scheme costs which are discounted to £68.5m.

COBA Assessment

COBA 11 R12 has been used to derive the accident benefits during the 60 year appraisal period for the LEB scheme from the opening year in 2016 to 2076. As defined in COBA, the total cost of accidents on a network is calculated by multiplying the number of accidents predicted to occur on the network by the cost per accident. The number of accidents on a given length of road is expressed by accident rates, defined as number of Personal Injury Accident Per Million Vehicle Kilometres. The outputs are expressed as the number of accidents saved, the number of and type of casualties saved and the economic benefits of the reduction in accidents. The outputs from the COBA assessment for the revised single carriageway scheme for the Core Scenario are outlined below.

	Reduction in Casualty Numbers			Reduction in Accidents	Benefits £m (2002 Prices)
	Fatal	Serious	Slight		
Benefit Over 60 Years	5	110	1467	1138	£39,726

It can be seen that the scheme is forecast to save significant numbers of accidents over the evaluation period with a benefit in the order of £40m.

QUADRO Assessment

The costs of delays associated with construction and maintenance of LEB have been assessed using QUADRO. It should be noted that the results below exclude benefits that would accrue as a result of maintenance not required on the Do Minimum network with LEB in place and hence overstate the true likely disbenefits.

Impact	Disbenefits £m (2002 Prices)
Construction Overall Impacts	14,509
Maintenance Overall Impacts	11,556
Disbenefit over 60 years	26,065

It can be seen that the total forecast disbenefits associated with maintenance are in the order of £26m, although this excludes the benefits of maintenance which will not be required on the existing network.

Economic Appraisal Summary

Following the evaluation of each element of the economic appraisal a combined assessment based on transport user benefits (TUBA), accident benefits (COBA) and the construction impact (QUADRO) has been produced for the LEB scheme. The table below provides the overall value for money summary for the Core Scenario.

Cost and Benefits	Scenario		
	Pessimistic	Core	Optimistic
Economic Efficiency	Benefits (£m)		
User Benefits	693,765	705,751	724,307
Indirect Tax Revenue	-9,742	-10,392	-12,036
Carbon Benefits	4,526	4,929	5,356
Accident Benefits	34,547	39,726	36,566
Delay during Construction	-14,509	-14,509	-14,509
Delay during Maintenance	-12,459	-11,556	-12,409
Noise Impact	NA	3,363	NA
Present Value of Benefits (PVB)	£696,128	£717,312	£727,275
Broad Transport Budget			
Investment Costs	£68,532	£68,532	£68,532
Present Value of Costs (PVC)	£68,532	£68,532	£68,532
Overall Impacts			
Net Present Value (NPV)	£627,596	£648,780	£658,743
Benefit to Cost Ratio (BCR)	10.158	10.467	10.612

The economic appraisal of the scheme demonstrates that the LEB scheme offers very high value for money with a BCR > 10 under all three scenarios. The scheme also demonstrates significant benefits across a number of areas. The assessment of BCR across the three scenarios clearly shows that the scheme assessment is robust.

Lincoln Eastern Bypass – Appraisal Summary

The Appraisal Summary of the LEB follows the guidance outlined by WebTAG to ensure that a robust appraisal of the single carriageway scheme is undertaken. The appraisal of the LEB has been refreshed across all of the Government's five key transport objectives (environment, safety, economy, accessibility and integration) and sub-objectives to reflect the scheme changes, policy changes and appraisal changes since programme entry. A summary of the economic case assessment and key outputs can be found below and presented in detail in Appendix 3.

Impacts		Summary of key impacts	Assessment
Economy	Business users & transport providers	£243,288,000 benefit (TUBA)	Net Benefit
	Reliability impact	The assessment of changes in reliability is based upon	Moderate

Environmental		Daily Traffic to the Congestion Reference Flow). The opening of the LEB will allow strategic through traffic to divert away from Lincoln city centre. Removal of through traffic to the LEB will increase journey time reliability both for traffic using the bypass and local traffic using the existing A15 corridor through Lincoln. Stress Test Value: 1,964,222	
	Regeneration	The analysis into the surrounding hinterlands demonstrated that much of the LPA would experience a notable benefit in terms of improved access to jobs and vacancies as a result of the LEB and the WITA assessments (below) quantifies the wider benefits. Consultation with local business stakeholders indicates a willingness by the private sector to capitalise on the opportunities presented by LEB to invest in regeneration, although has yet to be quantified. For this reason, this impact is classified as Neutral at this stage. At the time of the previous MSBC, it was agreed through dialogue with DfT that a monetised appraisal and supporting Regeneration Report could be scoped out of the assessment and therefore as part of this Best and Final Bid a revised assessment has not been produced. However, LCC in cooperation with DfT would be open to undertaking a further suitable and robust assessment of the LEB's impact on regeneration	Neutral
	Wider Impacts	The WITA assessment indicates significant benefits across all of the Pessimistic, Core and Optimistic scenarios, equivalent to approximately 20% of the TUBA benefits Core: £145,756,000	Net Benefit
	Noise	The analysis shows that noise increases in close proximity to proposed alignment and noise decreases in vicinity of roads where traffic has been displaced to proposed scheme. General noise reductions are predicted in noise at schools and no school would experience more than a 0.3dB(A) increase in noise levels. Population Annoyed DM 2031: 2740 Population Annoyed DS 2031: 2637 Difference in population annoyed: -103. NPV: £3,363,593.53 (*positive value reflects a net benefit i.e. noise reduction)	Net Benefit
	Air Quality	The proposed scheme lies within two Air Quality Management Areas declared by the City of Lincoln Council for NO2 and PM10. The proposed scheme is anticipated to affect air quality within the AQMA for both NO2 and PM10. Overall 9,486 properties within the AQMA experience a reduction in air quality for PM10; and 29,689 properties within the AQMA experience improved air quality for this pollutant. Whilst overall, 79 properties within the AQMA experience a reduction in air quality with regards to NO2 and 410 properties within the AQMA experience improved air quality (NO2). Overall Appraisal Score PM10: -800µg/m3 Overall Appraisal Score NO2: -799µg/m3	Net Benefit
	Greenhouse gases	The proposed scheme is predicted to lead to a <u>decrease</u> in carbon emissions over 60 years of approximately 45,532 tonnes. Carbon Emissions Impact: -45,532 tonnes NPV: £5,022,058	Net Benefit
	Landscape	The appraisal concluded that there would be a moderate	Moderate

		be conspicuous within the underlying landscape of the valley form that includes local waterways and transport corridors.	
	Townscape	The proposed scheme is almost wholly located within open countryside or on the periphery of small settlements whose overriding character is more closely aligned with the adjoining landscape. It has been concluded that this sub-objective is not relevant to the decision making process and an appraisal of this sub-objective has not been undertaken.	N/A
	Heritage of Historic resources	The slight adverse impact is due to the truncation or total loss of known archaeological features including a prehistoric land surface; a multi-period prehistoric site; the site of a former Grange; a multi period occupation site, including possible Roman Villa and an early medieval settlement site. There will also be moderate adverse impacts on the context of a Bronze Age Round Barrow Cemetery through severance of the barrows on each side of the proposed scheme.	Slight Adverse
	Biodiversity	There will be potential slight adverse effects on arable land, improved grassland, semi-improved grassland, standing water, and hedgerow. Marshy grassland will be also permanently lost due to the proposed scheme. The potential impacts of the proposed scheme on the habitat of five species of foraging and commuting bats (protected species); Barn Owls (protected species); Water Voles (protected species); Grass Snakes (protected species) and three common amphibian species are considered minor negative and the effects on the species as slight adverse. Greetwell Wood, a Site of Nature Conservation Importance (SNCI), situated in to the east of the scheme and north of the River Witham, will also be fragmented by the proposed scheme.	Slight Adverse
	Water Environment	The appraisal concluded that there would be an overall slight adverse effect on the water environment. Surface Waters: Three surface water features will receive routine run off as a result of the new drainage associated with the proposed scheme; Branston Brook, North Delph and Canwick Fen Drain. Branston Brook is also utilised for several agricultural abstractions. Groundwater: The design of the bypass is such that there will be no controlled discharges to groundwater or seepage through overlying permeable ground. Therefore, the effects of the proposed scheme on groundwater are considered insignificant. Flood Risk: The majority of the southern part of Lincoln lies upon the River Witham Flood Plain. The potential effects on flood storage and defence are considered insignificant as there is no anticipated increase on fluvial flood risk.	Slight Adverse
Social	Commuting and Other users	£436,396,000 Benefit (TUBA +QUADRO)	Net Benefit
	Reliability impact on Commuting and Other users	The assessment of changes in reliability is based upon changes in levels of stress (the ratio of Annual Average Daily Traffic to the Congestion Reference Flow). The opening of the LEB will allow strategic through traffic to divert away from Lincoln city centre. Removal of through traffic to the LEB will increase journey time reliability both for traffic using the bypass and local traffic using the existing A15 corridor through Lincoln. Stress Test Value: 1,964,222	Moderate Beneficial
	Physical activity	The provision of new combined foot and cycleway along the	Slight Beneficial

	benefits. These new combined pedestrians and cycle provision would link up with existing public rights of way along the scheme corridor. Pedestrians and cyclists will be provided with safe crossings at overbridges which will accommodate existing use.	
Journey quality	The LEB would remove strategic traffic from Lincoln city centre and provide a simpler alternative route for journeys travelling north and south through Lincoln. Specifically this would positively impact on a significant number of journeys.	Large Beneficial
Accidents	The analysis shows that as a result of the LEB there will be significant safety benefits over a 60 year period resulting in quantified benefit in the Core scenario of £39.726m. Core Scenario – Reduction in Casualties over 60 years: Reduction of 6 Fatal Casualties Reduction of 111 Serious Casualties Reduction of 1468 Slight Casualties	Net Benefit
Security	Proposals for LEB do not include a formal surveillance system, however the route will contain few concealed areas, be open and contain informal surveillance features. The LEB will reduce congestion on other areas of the network and reduce slow moving traffic on key city centre routes and as road users are more susceptible to crime when travelling at slower speeds the vulnerability of road users will be reduced.	Neutral
Access to services	No additional public transport services will be developed as part of the LEB programme and therefore the direct impact of the LEB programme on public accessibility to services is Neutral. However, it is important to note that the introduction of the LEB would lead to benefits to existing public transport services operating within the city centre through the removal and reassignment of traffic away from congested city centre links. This would likely impact on the reliability of existing services and improve the attractiveness of public transport as a viable mode of transport. However, the public transport improvements have not been defined and therefore cannot be appraised or analysed further.	Neutral
Affordability	Following the completion of Step 0 SDI analysis, DfT agreed with the conclusion that no further screening is required to assess personal affordability as this will be captured as part of the transport user benefits assessment. Specifically, affordability (including vehicle operating costs) will be reflected in the scheme's BCR. The overall Lincoln Transport Strategy targets affordable transport of which the LEB is fundamental part.	N/A
Severance	The analysis shows that a number of existing areas within Lincoln city centre are likely to experience a slight reduction in severance as a result of the reduction of traffic within these areas. The assessment shows that the LEB will reduce flow on key routes through central Lincoln. Flow on A15 Lindum Road will reduce by 18.64%, A15 Mellville Street 18.35%, B1188 Canwick Road 11.7% thereby reducing severance within the city centre. The sites located close to the LEB Site will likely experience a moderate or slight negative impact. However, the area around the LEB is predominantly rural and therefore a lower number of NMUs will experience these impacts.	Slight Beneficial
Option values	The Lincoln Eastern Bypass will provide a travel option to a significant number of people within the Lincoln area. The approximate population within a nominal 1km of the route is 25,617 based on 2001 Census population statistics.	Strong Beneficial
Public Accounts	Cost to Broad Transport Budget	PVC = £68,532,000
	Indirect Tax Revenues	£10,392,000

3.3 What impact, if any, would the proposed changes have on the statutory orders or permissions required or the timetable for obtaining these?

For example would fresh planning consent need to be sought?

A review of the Compulsory Purchase Orders (CPO), Side Road Orders (SRO) and land ownership has been completed as part of the LEB scheme revision. A comprehensive plan has been produced outlining the necessary amendments and changes required to complete the Compulsory Purchase and Side Road Orders as per the requirements for the re-designed LEB. The primary change that will be reflected in the revised orders will be the reduced area of land required by the scheme and referred to by any orders. The revision of the orders has been added to the scheme programme and following scheme approval by DfT all orders will be updated and amended. The Compulsory Purchase and Side Road Orders are planned to be published in May 2012 (subject to the success of this BAFB) with Confirmation of Orders expected in September 2013. The LEB Programme outlined within Appendix 4 provides full details for obtaining the statutory elements of the programme.

It is also important to note that the LEB was granted planning permission in 2010 and no further changes or submissions are required.

3.4 What are the procurement arrangements for the revised scheme and what, if any, changes have been made from the arrangements or timetable proposed for the original scheme?

For example would any retendering be required? Have you supplied details of your procurement strategy and arrangements to the Department?

Since June 2004 Lincolnshire County Council has employed an Early Contractor Involvement Major Schemes Framework Contractor to deliver schemes over £5m. This contract has been used for the successful delivery of its larger capital schemes.

However, as of July 2011 the framework has terminated and to ensure that a robust alternative procurement strategy for Major Schemes is in place in advance of this date, LCC have explored a number of alternative procurement options. The Major Schemes Framework has proved to be a successful vehicle for the delivery of large schemes as it allowed LCC to react swiftly when funds became available at short notice and offer schemes ahead of other authorities.

However, given the current major scheme framework situation and assuming that the LEB is successful at the Best and Final Bid stage then individual tendering through the European Union process will deliver the lowest tender cost with a pre-qualification questionnaire ensuring that only appropriately qualified contracts are short listed for the tender process. It is important to note that LCC have also contracted May Gurney for the Term Contract for smaller schemes (covering a 10 year period). May Gurney were previously one of the two Major Scheme Framework Contractors involved with the development of the LEB. Through their appointment LCC will again have access to staff and expertise in the form of ECI from staff previously involved with the LEB's development Major Scheme Framework.

This will help address the only concern raised during the Gateway Review.

Full details of the procurement options explored by Lincolnshire County Council for the delivery of the LEB and a detailed methodology for the preferred delivery vehicle can be found in Appendix 5. It is important to note that the programme has been fully revised to account for all changes to the scheme since the Major Scheme Business Case submission.

3.5 Please describe the internal / external expertise & skills that will be assigned to the project to allow for its effective delivery. This should detail who / what roles will have overall responsibility for the project and what other skills will be available.

Lincolnshire CC has appointed Mouchel as its Technical Services partner and the necessary expertise and skills for this project will be drawn from this integrated team. The Project Governance

Note details the specific arrangements and processes for the delivery of the LEB (see Appendix 6). As part of the governance arrangements the Project Board will provide the strategic platform for key decision making and providing guidance and support to the Delivery Team. The Project Board will pull together a number of technical experts that have significant experience of delivering and providing strategic direction to major schemes. Specifically the LEB Project Board will consist of senior members from Lincolnshire County Council and from Mouchel, and will be headed by the Assistant Director of Highways and Transportation.

The project Board will appoint a Project Manager, whose role will be to manage all aspects of the scheme's delivery and to be the primary contact between the Project Board and Delivery Teams. The project manager will be an experienced individual with significant experience of delivering major schemes. In addition, to ensure the effective delivery of the LEB scheme at each delivery stage, a Stage Manager will be appointed to provide specific time and technical expertise (further details are provided in Appendix 6). The project will also be delivered through individual Delivery Teams that comprise staff representing each of the work packages or technical disciplines. The Delivery Team Leaders will report to the Project Manager and Stage Manager.

Through the Technical Services Partnership, the Project Board will be able to draw on the wider experience of Mouchel as well as internal LCC expertise.

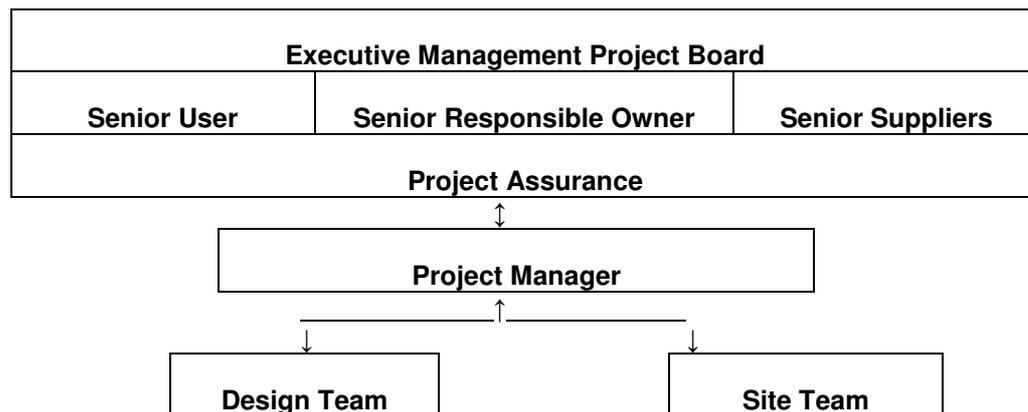
A Project Assurance role will also be used to provide an independent audit and assurance of the work package delivery. The Assurance Role considers the end product of each work package against the work package plan and product specification and confirms to the Project Board that it is fit for purpose.

3.5 Please supply a note setting out the governance arrangements for the scheme. *This should also link roles and responsibilities with accountability and arrangements for Reviews as appropriate.*

From a Governance perspective the Project has been organised at the following levels:

1. Executive Management Project Board
2. The Senior Responsible Owner
3. Project Assurance
4. Project Manager
5. Project Teams

A visual representation of this delivery framework.



In accordance with DfT guidance, once full approval has been granted the above project structure will be developed in more detail at an Inception Meeting. This meeting will be used to confirm the Governance structure and the roles and responsibilities of the entire delivery team.

Following the Inception Meeting a detailed project organogram will be completed with named individuals provided for the Design and Site teams. The current Governance Structure is detailed below.

Executive Management Project Board consists of the following members

Assistant Director for Highways & Transportation

Executive Councillor Highways & Transportation

Head of Service – Client Services

Head of Service – Consultancy

Finance Officer

Senior Responsible Owner

The Senior Responsible Owner for the LEB is currently the Assistant Director for Highways and Transportation, Paul Coathup, C.Eng, MICE, MIHE

As Senior Responsible Owner for the scheme his key responsibilities include:

- Ultimately responsible for the project
- Appointment of the Project Manager
- Chair the Project Board meetings
- Approve the milestone reports and initiate follow on action as necessary
- Monitor the scheme in line with the business and financial progress with in the agreed tolerances
- Ensure that a project or programme of change meets its objectives and delivers the projected benefits
- Ensure that the project is subject to review at appropriate stages
- Own the project or programme brief and business case
- Development of the project or programme organisation structure and logical plans
- Monitoring and control of progress
- Formal project closure
- Post implementation review
- Problem resolution and referral

Executive Management Project Board

As identified above the Senior Responsible Owner for the scheme chairs the Project Board. The Project Board includes representatives from all the key stakeholders who are committed to the delivery of the LEB.

Throughout the process of scheme development officers and Members of all partnering authorities have worked together and as Senior Users are represented on the Project Board. Reports on progress have been presented by the Project Board at the Lincoln Area Strategic Planning Joint Advisory Committees together with Member briefings as and when requested. The Project Board also includes representation from LCC's Design Consultants (Mouchel) and LCC's ECI Contractor (May Gurney).

The key responsibilities of the Project Board include:

- Liaison between the project management & staff, Councillors and Study Partners & Senior Management
- Overall responsibility for the risk management. (Although day to day management of individual risks will be delegated to the most appropriate person)
- The assurance that the project remains on course to deliver the required quality to meet the business plan

- Identify and manage issues for the 'Gateway' review and support the 'Gateway' Review Team
- The approval and funding for significant changes to the project
- Responsible for publicity and dissemination of information about the project
- Review, comment and improve on the Project delivery processes and procedures
- Management and mitigation of strategic risk
- Review resource provision
- Ensure there are robust procedures to capture learning and promote continuous improvement
- Resolve conflict escalated by the Project Teams
- Establish formal reporting arrangements
- Implement audit strategy

According to the needs and desires of the Project Board, assurance responsibilities are delegated, as long as the recipients are independent of the Project Manager and the rest of the Project Management Team. Any appointed assurance jobs assure the project on behalf of one or more members of the Project Board.

Assurance covers all interests of a project, including business, user and supplier. Project Assurance is independent of the Project Manager; therefore the Project Board does not delegate any of its assurance responsibilities to the Project Manager.

The implementation of the assurance responsibilities cover the following:

- Maintenance of thorough liaison throughout the project between the supplier and the customer
- User needs and expectations are being met or managed
- Risks being controlled
- Adherence to the Business Case
- Constant re-assessment of the value-for-money solution
- Fit with the overall programme or company strategy
- The right people are being involved
- An acceptable solution is being developed
- The project remains viable
- The scope of the project is not 'creeping upwards' unnoticed
- Focus on the business need is maintained
- Internal and external communications are working
- Applicable standards are being used
- Any legislative constraints are being observed
- The needs of specialist interests (for example, security) are being observed
- Adherence to quality assurance standards

3.7 What is the estimated start and completion date of the scheme as now proposed, taking into account any of the impacts described above?

For the purposes of this question assume that decisions on BAFB will be made in December 2011 and that no DfT funding will be available before 2012/13. Please complete the list of milestones below adding any additional ones where appropriate and setting out separate start and completion dates where there are separate elements in the schemes. Please enter "n/a" if not applicable rather than deleting lines.

A complete LEB Programme detailing all milestones and the start and end dates of all key delivery elements can be found in Appendix 4. The table below outlines the completion dates of all key milestones and demonstrates that the LEB will be completed by late 2016.

Milestone	Expected Completion Date
Approval of BAFB from DfT	Dec 2011
Statutory Orders published	May 2012
Public Inquiry Starts	July 2012

Confirmation of Orders	Sept 2013
Complete Procurement (include separate elements if appropriate)	Feb 2014
Submit Full Approval application to DfT	Feb 2014
Work Starts on Site	April 2014
LEB Junction Completion Dates: <ul style="list-style-type: none"> • Wragby Road Roundabout • Hawthorn Road East • Greetwell Road Roundabout • Lincoln to Market Rasen Railway Crossing • River Witham Bridge • Lincoln to Spalding Railway Line • Washingborough Road Roundabout • Heighton Road Overbridge • Lincoln Road Roundabout • Sleaford Road Roundabout 	<ul style="list-style-type: none"> • June 2015 • Feb 2015 • Feb 2015 • Jun 2015 • Sept 2015 • Sept 2014 • Sept 2014 • Dec 2014 • Aug 2015 • Aug 2015
Work Completed	Nov 2016
Opening / commencement of operations (including phases of opening as appropriate)	Nov 2016

3.8 What are the key risks to the delivery to this timetable, aside from the availability or otherwise of DfT funding?

Please list the biggest risks (ideally no more than three) that have a potentially significant impact on the timing of the scheme. For each risk please describe its likelihood, quantify the potential time delay, and explain how you are mitigating the risk including how risks are transferred as part of your procurement strategy?

A structured and systematic process for identifying, assessing and managing risk for the LEB Scheme has been established to ensure that a robust assessment of risk is undertaken for the delivery of the scheme. A risk log has been generated to identify and log risks identified during the planning and design phases and outlines any unrealised issues that have the potential to adversely impact the scheme delivery programme or cost. The risk register has been in place since the LEB programme's inception and updated as required and through regular formal risk workshops. In line with being granted development pool status and the change in scheme design a formal risk workshop was held in May 2011 to assess and review the risk register. The register currently contains risks which can be grouped into the following key areas:

- Engineering – Including scheme design, structures and earthworks.
- Planning & Site Supervision – Including legal/statutory processes, site supervision, policy changes and overall programme.
- Strategic – Including funding, policy, planning, stakeholder consultation
- Statutory Undertakers – Including unforeseen statutory services and delivery programme risks.
- Environment – Contaminated land, construction phase impact, protected species discoveries.
- Ground Conditions – Including land drainage and unforeseen ground conditions.
- Contractual/ Construction - Including adverse weather, programme delays and resource issues.

The final quantification of the risk allowance is calculated using the Highways Agency Risk Management (HARM) tool. The use of Monte Carlo analysis through the HARM software provides a robust quantification of the risk, allowing the potential impact to be considered as part of the overall scheme cost estimate. The current scheme Risk Register contains 47 risks and a quantified risk allowance of £5,186,352. The three most significant risks that may have the largest impact on the timing of the scheme delivery are as follows:

Risk	Probability	Potential Time Delay
1. Unforeseen ground conditions including contaminated land within the LEB site	Medium	24 weeks

2. Network Rail cancel possession and/or LEB contractor does not meet the programme.	Medium	18 weeks
3. Statutory Undertakers; poor performance of utility companies affects programme.	High	14 weeks

A detailed assessment of the programme risks can be found in Appendix 7.

3.9 Please indicate the level of allowance you have made within your own budgets to cover the cost of scheme evaluation including your initial estimates of the costs of:

- a) full scheme impact evaluation**
- b) pre and post scheme opening monitoring reports**

Please note that funding for scheme evaluation and monitoring will not be available from DfT.

Lincolnshire County Council is committed to undertaking a robust and thorough evaluation of the LEB. This includes developing a detailed pre and post scheme monitoring programme and undertaking a robust scheme impact evaluation.

A monitoring programme will be implemented that will cover the pre scheme period and the immediate post scheme period. The pre-scheme monitoring process will be implemented prior to any preliminary works taking place and collate baseline data connected to primary scheme objectives. This will allow a detailed baseline to be generated for the LEB from which the scheme's impact can be accurately monitored and evaluated. In addition a further monitoring report will be generated one year after opening to effectively monitor the impact of the scheme within the immediate period after scheme opening. The latest estimated cost for undertaking the monitoring programme including data collection and reporting is £100k. A full final scheme evaluation will also be undertaken that will evaluate the scheme against the primary scheme objectives. The evaluation report will collate further data at the end of year three (after opening) once the scheme is fully embedded within the Lincoln area and look to compare this against the baseline data. The initial estimate for undertaking the scheme impact evaluation is approximately £100k.

LCC is committed to funding a full impact evaluation of the LEB and appropriate allowances will be made within LCC budgets to ensure that this work programme is undertaken.

SECTION 4: FUNDING FOR REVISED SCHEME PROPOSAL

This section is to detail the cost, revenues and funding requirements for your revised proposal as described in Section 2 above. Please quote all amounts in £m to three decimal points (i.e. to the nearest £1000)

4.1 What is your estimate of the total outturn cost of the revised scheme? After taking into account all the proposed changes described in Section 2 above. Do not include any pre-Programme Entry costs. Please provide a breakdown of the total cost, split between different elements of the scheme and separately identify preliminaries, project management, risk and inflation. Please also provide your full cost breakdown as an annex.

The total cost of the scheme is split across the following elements and outlines the base cost of the scheme before inflation, and with the inflation assumptions detailed in Section 4.2 and within Appendix 9. The full scheme cost breakdown including scheme cost profile across the programme time period can be found in Appendix 8.

Scheme Cost Element	Scheme Base Costs (£m - without inflation)	Scheme Costs (£m - with inflation)
Contract Total	£55.855	£65.603
Ancillary Works	£2.227	£2.529
Stats Costs	£1.519	£1.742
Land & Property inc Part One Claims - Estimate	£6.983	£8.568
Third Party Costs*	£0.586	£0.772
Design and Procurement	£5.192	£5.970
Supervision Cost	£3.343	£4.274
Risk Assessment - QRA	£5.186	£6.399
Total	£80.891	£95.858

4.2 Please state what inflation assumptions you are using.

Inflation rates for different categories (e.g. general inflation, construction cost, operating cost) should be separately identified.

The inflation factors used to calculate the scheme costs are based on actual and forecast inflation rates with (local) construction factoring applied where appropriate. It is important to note that the current HM Treasury forecast RPI rates are considerably higher than 2.7% per annum, the maximum inflation rate previously considered within the scheme cost estimate as per DfT's 2009 advice, and higher than the rates considered in the scheme's Expression of Interest submitted to the department in January 2011. The current Treasury forecast inflation rates have been reviewed and a new set of forecast inflation rates now proposed and outlined below. This provides Lincolnshire County Council and funding partners with confidence in the delivery of the within the scheme cost estimate. Full details of the inflation assumptions and calculation methodology are provided within Appendix 9.

Factor Type	Q4 2009/ 10	2010/ 11	2011/ 12	2012 /13	2013/ 14	2014/ 15	2015/ 16	2017/ 18
RPI	1.25%	5.25%	4.73%	3.55%	3.4%	3.33%	3.33%	3.33%
Construction Inflation	0.94%	4.0%	3.48%	2.30%	2.15%	2.08%	2.08%	2.08%

4.3 Please provide a breakdown of the proposed funding sources for the scheme

(a) Local Authority contribution

This needs to cover the difference between the total cost of the scheme as stated above and the total of the requested DfT and agreed third party contributions. It should include the LA costs incurred or expected to be incurred after Programme Entry excluding ineligible preparatory costs as defined by previous guidance. Where a local authority is promoting more than one scheme, please detail the level of contribution required if **all** schemes are successful as part of this funding process. Please do not include the cost of any Part 1 Claims.

£13.596m

(b) Agreed third party contributions

Please name each contributor on a separate line and provide evidence of

£32.312m

agreement (e.g. a letter from the funder outlining the degree of commitment, timing for release of funds and any other conditions etc). Note: you will be required to underwrite all third party contributions should these not materialise.

As described in section 4.7 although there is known interest in development sites within the Lincoln Policy Area, at this time it is not possible to identify specific developments that will contribute, since to do so could be seen as pre-determining the outcome of the LDF process. Therefore LCC will underwrite all non DfT contributions in the Best and Final Bid application.

(c) DfT funding requested

You are reminded that, as set out in the document "Investment in Local Major Transport Schemes" the risk layer cost sharing mechanism is being discontinued and the figure you enter here will, if accepted, be the maximum funding that DfT will provide for the scheme. If you wish eligible preparatory costs (as defined by previous guidance) to be paid these will need to be consolidated within this funding request.

£49.950m

4.4 What is the estimated funding profile.

Assume that no DfT funding will be available before 2012/13. Please specify the third party contributor(s) and list each one (if more than one) on a separate line. Please assume that the DfT and LA contributions will be in the same proportion in each year from 2012/13 and provide an explanation if this is not the case. Although the total level of DfT funding will be fixed, profiles across years may be subject to further discussion and agreement. Please do not include the cost of any Part 1 Claims.

The scheme cost estimate provided below includes inflation but does not include optimism bias which is assumed to be 44%. The scheme cost estimate is provided in Appendix 8 and details the scheme costs with and without optimism bias.

£m	Pre 2011/12	2011/12	2012/13	2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	Total	%
LA contribution	£0.166	£0.860	£0.850	£1.608	£4.184	£3.491	£2.435	£0	£0	£13.596	14.2%
Third Party contribution	£0	£0	£2.021	£5.042	£9.944	£9.517	£5.787	£0	£0	£32.312	33.7%
DfT funding requested	£0	£0	£3.124	£7.794	£15.372	£14.712	£8.947	£0	£0	£49.950	52.1%
TOTAL	£0.166	£0.860	£5.996	£14.444	£29.500	£27.721	£17.169	£0	£0	£98.858	100%

4.5 If any DfT funding were available in 2011/12 would you be in a position to reach Full Approval and begin claiming such funding and if so how would your funding profile change?

(If appropriate please set out a funding profile similar to that in section 4.4)

Lincolnshire County Council would not be in a position to reach full approval and start to claim any funding within 2011/12 as the statutory orders process could not be completed within this timescale. The programme within Appendix 4 demonstrates that the outlined programme will deliver the LEB efficiently and effectively within an appropriate timescale.

4.6 Please indicate the level of flexibility with regard to the phasing of the local contribution of the bid (including the third party contribution), should the DfT have a need to vary the phasing of its own contribution for budgetary reasons.

Please detail the level of change in DfT support per funding year you could accommodate within the project and from which sources any change would be made up.

Lincolnshire County Council is in a position to vary their financial contribution towards the LEB. If required LCC would be able to phase and front load their contribution to ensure that the scheme is able to start as outlined within the programme plan.

4.7 Please set out the efforts you have undertaken to obtain (additional) third party funding and, where appropriate, why it is not available.

LCC has been working with its Local Authority partners to ensure appropriate third party funding. The Central Lincolnshire Joint Strategic Planning Committee (25th July 2011), has resolved to commit Community Infrastructure Levy (Developer Contributions) to the value of **£32.312m** to enable the LEB to be delivered. There is known interest in development sites within the Policy area, although at this time it is not possible to identify specific developments that will contribute, since to do so could be seen as pre-determining the outcome of the LDF process. Therefore LCC will underwrite all non DfT contributions in the Best and Final Bid application.

4.8 Please supply details of likely revenue generated, any ongoing revenue liability associated with the operation of the scheme (other than routine maintenance) and how you intend to fund it. If revenues fall short of those forecast (especially in the early years after implementation) how will these be funded? *(This is of particular relevance to public transport schemes but could apply to package schemes.)*

LEB will generate significant monetised benefits and cost savings to local enterprise and increase revenues to local businesses. The scheme will help to deliver sustainable economic growth within Lincoln through the provision of a reliable and efficient transport infrastructure, and improving the attractiveness and liveability of Central Lincoln for residents, workers and visitors. However, it is not intended to charge users for access to LEB and so there would no direct revenue generated by the Scheme.

4.9 Please detail any other funding information you think to be of relevance to the bid

(For example other costs or revenue risks etc being taken by the local authority or other parties but not included within the funding table above.)

As described in Section 4.7, LCC will underwrite the third party contributions as a precursor to obtaining appropriate funding from the private sector. LCC's own financial contribution (see 4.10) and its underwriting of the third party contribution will be used to ensure programme continuity for the delivery of the scheme.

4.10 Please explain how the Local Authority contribution will be funded.

Explain where local contributions are dependent on a particular source of income and contingency plans if that income is not forthcoming. Please also include any contingency plans for meeting third party costs that fail to materialise.

LCC's contribution has already been allocated from the authority's existing funds. The Council's Extraordinary Executive meeting on 15th August 2011 agreed that the authority's contribution (**£13.596m**) will be allocated from the Capital Programme (Other Road Improvement Block).

In addition at the 15th August 2011 meeting, Lincolnshire County Council Extraordinary Executive resolved to underwrite any shortfall in developer contributions through borrowing.

SECTION 5: STAKEHOLDER MANAGEMENT

5.1 Consultation

Please provide a brief overview of the consultation you have undertaken to date with

- (a) the public,
- (b) statutory environmental bodies and
- (c) other stakeholders;

This should include dates detailing when consultation was carried out
Please also summarise any further consultation you plan to undertake.

The proposed LEB has been granted planning permission and, through this process, has been the subject of extensive public and stakeholder consultation. Full details of this consultation are described in the Stakeholder Consultation Report in Appendix 10 however to summarise; the following consultation activities have taken place:

Activity	Date
County News Articles	Jan 2008
LCC staff briefing	Feb 2008
Distribution of posters	Feb 2008
Invitation to stakeholders, Members and media	Feb 2008
Questionnaires (25,000 in Lincoln area)	Feb 2008
LEB preview	Feb 2008
Lincolnshire Echo 4 page colour supplement	Feb 2008
LEB consultation material on website	Feb 2008
Public consultation exhibitions	Feb 2008
Seldom heard form groups	Feb/March 2008
Deadline for submitting questionnaires	Feb/March 2008

In addition, as part of the consultation process all relevant statutory consultees were also consulted. Whilst there were some limited objections to the planning application, previous exercises have shown that the scheme has overwhelming local public support and widespread support amongst stakeholders. However, as discussed the scheme is part of the Lincoln Transport Strategy and has an important objective of encouraging sustainable economic growth. Against the background of the changed economic situation, it was considered appropriate to conduct a focused consultation exercise to ensure that the revised scheme remains relevant to the regeneration plans of local stakeholders and represents a good use of limited funds. This second, focused, consultation has been undertaken in July and August 2011.

The consultation exercise was undertaken with the specific aim of ensuring that the scheme is relevant to the sustainable economic regeneration plans of key stakeholders. Based on previous consultation exercises and a consideration of the economic conditions prevailing in Lincoln and Lincolnshire, it was decided to target the following groups and organisations:

Group	Consultees
Local Enterprise Partnership	Lincolnshire Local Enterprise Partnership
Business and Enterprise Umbrella Groups	Lincoln Business Improvement Group Federation of Small Businesses Lincoln Chamber of Commerce Lincolnshire Forum for Agriculture and Horticulture Bailgate Guild
Major individual businesses or operations	Siemens

	Lincolnshire Co-op Lincolnshire Agricultural Society Denby Transport RASE Witham Group
Visitor/Tourist organisations	Historic Lincoln Partnership Lincoln Cathedral Visit Lincoln
Educational Establishments	University of Lincoln Lincoln College Employment and Skills Board
Health Authorities	Primary Care Trust United Lincolnshire Hospitals
Emergency Services	Police Fire and Rescue Ambulance trust
Public Transport Operators	Stagecoach
Environmental Groups	Campaign for Better Transport

Each organisation has been contacted, and, where possible, a face-to-face meeting arranged in July and August 2011. The purpose of each meeting has been to establish what impacts the current transport situation has on the consultee's operations and how relevant Lincoln Eastern Bypass, as part of the LTS, will be to the consultee's future development or operational plans.

The majority of those consulted responded in writing to LCC, giving their views on the existing situation and what impact LEB would have. These responses are summarised in the Stakeholder Consultation Report in Appendix 10.

In addition, the District Authorities (City of Lincoln, North Kesteven and West Lindsey) which make up the Central Lincolnshire Joint Policy Unit have been consulted at various stages during the scheme development and have also been continually supportive of the scheme.

5.2 Letters of support

Please append any letters of support explaining strategic importance of scheme especially from the Local Enterprise Partnership and business groups. These should detail, where possible, the particular outcomes they believe the scheme will deliver. Where a LEP includes more than one scheme it will be important that they differentiate between schemes, and prioritise if possible.

Following the consultation process letters of support have been received from the following groups all of which are provided in Appendix 10 – Section 2:

Group	Consultees
Member of Parliament for Lincoln	Karl McCartney MP
District Councils	City of Lincoln North Kesteven West Lindsey
	Central Lincolnshire Joint Strategic Planning Committee
Local Enterprise Partnership	Lincolnshire Local Enterprise Partnership (LEP)
Business and Enterprise Umbrella Groups	Lincoln Business Improvement Group Federation of Small Businesses Lincoln Chamber of Commerce Lincolnshire Forum for Agriculture and Horticulture

	Bailgate Guild
Major individual businesses or operations	Siemens Lincolnshire Co-op Lincolnshire Agricultural Society RASE Witham Group Denby Transport
Visitor/Tourist organisations	Historic Lincoln Partnership Lincoln Cathedral Visit Lincoln
Educational Establishments	University of Lincoln Lincoln College Employment and Skills Board
Health Authorities	Primary Care Trust United Lincolnshire Hospitals
Emergency Services	Police Fire and Rescue Ambulance trust
Public Transport Operators	Stagecoach

All the letters received were in support of the scheme and emphatically detailed why the LEB is of strategic importance to the area and the outcomes they thought the scheme would ultimately provide. There was particularly strong support from the LEP and local business groups who identified the economic benefits of the scheme.

A detailed summary of all the stakeholder responses is contained in the report in Appendix 10; however to summarise the LEP's view (which is generally reflective of the views of the local businesses who have written a letter of support for the scheme); the LEP have expressed support for the scheme; support which is based on detailed consideration of their key growth areas in Lincolnshire. Most significantly, *"the LEP believes that the Lincoln Eastern Bypass will assist business in Lincoln and the surrounding areas to become more efficient and productive, to improve links to markets, reduce costs and increase investment and employment prospects."*

Having identified Lincoln as being at the heart of their transport network; the LEP highlight congestion in the city as a key challenge that it faces in the pursuit of its aims. The LEP surmised that *"a common theme constraining growth is the poor standard of transport linking production to markets, people to employment, skill needs to training opportunities and visitors to attractions"*. The LEP believes the LEB will therefore *"...contribute to making Lincoln a better place in which to live and work and will help preserve nationally important heritage assets."*

5.3 Opposition

Please describe any significant opposition to the proposed scheme, the reasons for this opposition and how you are dealing with their concerns?

Please describe any mitigation measures you have included in your plans in response to these concerns.

The Campaign for Better Transport (CBT) has been consulted regarding the scheme and a meeting held on 19th August 2011 between representatives of CBT and the County Council.

There was agreement that Lincoln suffers negative effects of large volumes of traffic in the City centre, especially heavy goods vehicles, and that this creates poor conditions for residents, businesses and all road users including pedestrians, cyclists and bus passengers. CBT have not accepted, at this stage, that the scheme would be the most appropriate way of addressing these problems. Particular issues that CBT wished to explore further included to what extent public transport options could address the problems and how the County Council intended to "lock in" any long term benefits to sustainable modes in the City centre which could result from the scheme. In addition, CBT also requested results of origin/destination analysis of

traffic in central Lincoln.

CBT and LCC have agreed to continue to liaise and LCC has agreed to make available all material that may help CBT understand the issues and the case for LEB within the Lincoln Transport Strategy. Since the meeting on 19th August, the County Council has provided to CBT an extract from the Major Scheme Business Case (2009) which gives details of all alternative options (including public transport measures) considered during the development of the scheme and how these were assessed and evaluated.

In addition, the County has offered to meet CBT again in September 2011 to explain the details of the plans for the City Centre within the Strategy which are intended to “lock in” the benefits of the scheme for sustainable users and to improve the environment of the City.

SECTION 6: ADDITIONAL INFORMATION

6.1 Please add any additional information that is relevant to your Best and Final Funding Bid that is not covered elsewhere in the form.

Appendices & Further Information

This Best & Final Bid includes the following appendices:

Appendix 1: Lincoln Eastern Bypass Location Maps

Appendix 2: Lincoln Eastern Bypass Preliminary Scheme Design Drawings, Design Consideration Report and Gateway Review 1 Report.

Appendix 3: Value for Money Assessment

- Appendix 3 – Section A: Economic Appraisal
- Appendix 3 – Section B: Appraisal Summary
- Appendix 3 – Section C: Value for Money Supporting Documents - Local Model Validation Report, Forecasting Report, Surveys Report

Appendix 4: Lincoln Eastern Bypass Delivery Programme

Appendix 5: Lincoln Eastern Bypass Procurement Arrangements

Appendix 6: Lincoln Eastern Bypass Governance Arrangements

Appendix 7: Lincoln Eastern Bypass Risk Assessment Briefing Note

Appendix 8: Lincoln Eastern Bypass Scheme Cost Estimate

Appendix 9: Lincoln Eastern Bypass Inflation Assumptions

Appendix 10: Stakeholder Engagement Report

- Appendix 10 – Section 1: LEB Consultation Report
- Appendix 10 – Section 2: LEB Letters of Support

Appendix 11: Lincoln Eastern Bypass Alternative Options

Appendix 12: SDI Analysis (this includes User Benefits, Noise, Air Quality, Accidents and Severance).

6.2 Please provide details of any other information that has been submitted to the Department since January 2011 that forms part of your submission (*This should include name of the document and date of submission.*)

Document Title	Date Submitted	Location on Promoter Website
Briefing Note 2 – Results of Prior Matrix Building & Modelling	9/5/11	www.linconshire.gov.uk/leb
Briefing Note 3 – Inflation Assumptions	9/6/11	www.linconshire.gov.uk/leb
Briefing Note 4 – Consultation	9/6/11	www.linconshire.gov.uk/leb
Briefing Note 5 - Demand Model Building	2/6/11	www.linconshire.gov.uk/leb
Briefing Note 6 – Procurement	9/6/11	www.linconshire.gov.uk/leb
Briefing Note 7 – Forecasting	9/6/11	www.linconshire.gov.uk/leb
Briefing Note 8 – Governance	9/6/11	www.linconshire.gov.uk/leb
Briefing Note 9 – Programme Risk	9/6/11	www.linconshire.gov.uk/leb

Local Model Validation Report	18/6/11	www.linconshire.gov.uk/leb
Report of Surveys	18/6/11	www.linconshire.gov.uk/leb
Matrix Build Report	18/6/11	www.linconshire.gov.uk/leb

Notes:

BAFB Form and Link to the 5 Case Model

The following section provided to bidders to detail which elements of the form relate to the 5 cases used in decision making.

Case	Elements of the BAFB Form
Strategic Case	1.1, 1.2, 1.3, 1.5, 2.1,2.2, 2.4, 2.5, 3.1, 3.2, 5.1, 5.2, 5.3
Financial Case	1.4, 2.2, 2.3, 2.4, Section 4
Economic Case	3.2 (and Appendices)
Management Case	3.3, 3.5, 3.6, 3.7, 3.8, 5.1, 5.3
Commercial Case	3.4, 3.5,3.7,3.8