



Warrington Western Link

Financial Case

December 2017

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Executive summary

The Financial Case outlines the affordability of Western Link, its funding arrangements and technical accounting issues. The case comprehensively details the financial profile of the preferred option and the potential impact of the proposed deal on the Department's budgets and accounts.

Cost assumptions

The scheme costs are wholly based on the assumption that the construction of Western Link will begin in 2020 and subsequently see full scheme completion in 2023. Official opening of the highway scheme is expected in the same year as completion.

Scheme Costs without risks

Scheme costs have been prepared under a number of key headings. Table 1 shows the build-up of scheme costs before risks are considered.

Table 1: Summary of scheme costs (excluding risk)

Item	Cost
Pre-construction and preparation	£2.5m
Design	£9.263m
Highways and Structures	£93.08m
Staff	£9.838m
Utilities	£13.245m
Inflation	£24.613m
Land	£21.2m
Business Case	£1.5m
WBC costs	£4.0m
Wider Network Costs	£5.0m
Network Rail	£0.883m
Total without Maintenance	£185.12m
Maintenance	£42.07
Total with Maintenance	£227.19m

Source: Balfour Beatty

The base construction costs are based on costs incurred on current and recently completed projects. The land costs are based on the plan for permanent and temporary land requirements for the scheme. Other costs have been assessed based on project team review of resource requirements, utilities information and stakeholder interactions.

Inflation has been averaged at 5.4%, using the BCIS forecast, over the design and construction period from 2018-2023.

Maintenance costs account for £42.070m over a 60-year period. The potential annual maintenance costs for the proposed scheme will vary year-on-year depending on the level of maintenance that is required, however, estimates of yearly maintenance costs have been calculated as £0.225m per year. Larger maintenance funding allocations are required at future intervals from 2032 to 2082 with costs ranging from £0.856m in the early years to £13.02m up to 2082.

Scheme costs including risk

A Quantified Risk Assessment (QRA) has been carried out by the project team. The identification and quantification of risk through this process has led to the inclusion of an £27.62m allowance in the scheme costs. Table 2 shows the scheme costs including risk.

Table 2: Total scheme costs including risk

Item	Cost
Scheme cost total without maintenance	£212.74m
Maintenance	£42.07
Scheme cost total with maintenance	£254.81m

Source: Balfour Beatty

The QRA has been verified through a Monte Carlo analysis which yields a P50 value within 0.5% of the value allowed for risk in the scheme costs. The Monte Carlo analysis has also been used to generate a P80 value for use in sensitivity testing in the Economic Case.

Funding requirements

The proposed funding mix is a combination of funds awarded by central government and prudential borrowing by WBC.

The proposed funding profile is based on a funding bid from central government of 67% of the scheme costs, totalling £142.5m with WBC is proposing to meet the remaining 33% of the scheme costs of £70.2m on the condition of successfully achieving DfT funding.

Although Part 1 claims have been included in scheme costs, it is not intended to request funding for Part 1 claims from Central Government. Funding of all Part 1 Claims associated with the scheme will be from the WBC funding contribution.

The council is in discussion with the DfT and DCLG/HCA regarding a potential split of contributions between central government departments that would effectively lessen the burden on the DfT's Large Local Majors fund by securing a DCLG/HCA contribution. These discussions will continue over the coming months and the DfT will be updated following confirmation of the DCLG/HCA contribution

1 Financial case overview

1.1 Introduction

The Financial Case comments on the affordability of Western Link, its funding arrangements and technical accounting issues. The case presents the financial profile of the preferred option and the impact of the proposed deal on the Department's budgets and accounts.

The DfT's guidance document, 'The Transport Business Case: Financial Case', outlines the areas that should be covered as part of the documentation. Table 3 shows where the information on these areas can be found in this document.

Table 3: Compliance with DfT requirements for the financial case

Content	DfT Requirements	Status	Section
Introduction	Outline the approach taken to assess affordability	Completed	1
Costs	Provide details of: <ul style="list-style-type: none"> Expected whole life costs When they will occur; Breakdown and profile of; costs by those parties on; whom they fall; and Any risk allowance that; may be needed (in the event of things going wrong). 	Completed	2-4
Budget/Funding Cover	Provide analysis of the budget/ funding cover for the project. Set out, if relevant, details of other funding sources (e.g. third-party contributions, fees)	Completed	5
Accounting Implications	Describe expected impact on organisation's balance sheet	Completed	5

Source: DfT

2 Costs

Detailed costs of Western Link have been produced. The costs include preparation costs, the design, construction, land acquisition, inflation and other costs.

In early 2017, Balfour Beatty was commissioned to undertake a review of the buildability aspects of the scheme and to independently review assumptions relating to quantities, rates and prices. This informed a cost estimate prepared by Balfour Beatty for the preferred option which was prepared in Q3 2017. The following section detailed the approach and findings of this cost estimate.

2.1 Assumptions

Key assumptions made with regards to deriving scheme costs include:

- The cost information baseline was produced in Q1 2017; and
- All rates have been developed using a price base of Q1 2017, but the estimate includes inflation over the construction period to 2023.

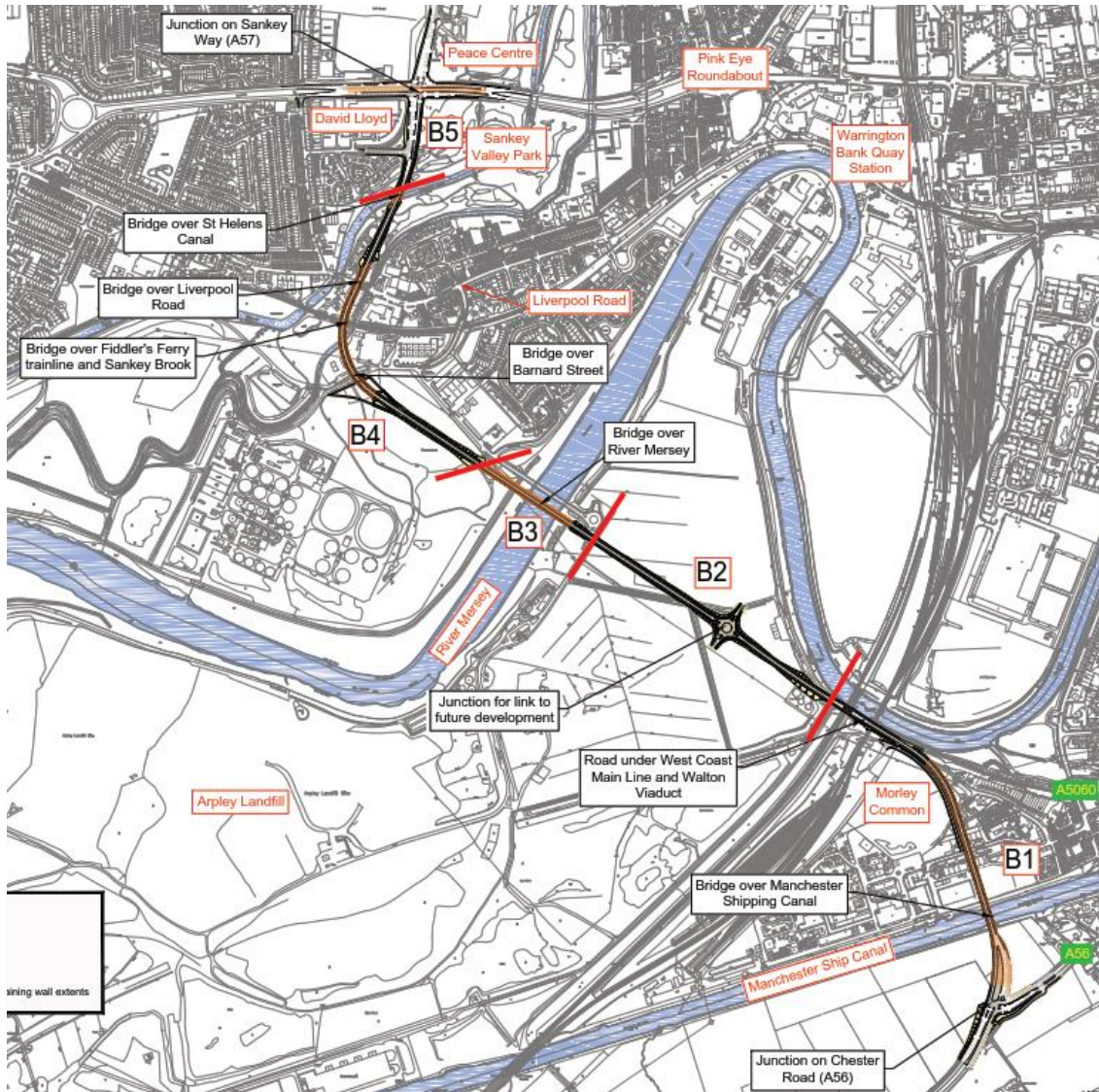
Scheme drawings are included in Appendix D, which outline a degree of the engineering interpretation that has been used in developing the costs.

2.2 Route Sections

To assist in developing the target cost, the scheme was split into 5 plan sections, as shown in the figure below. This enabled costs for each section to be grouped for analysis.

The base costs, as included in Appendix K, follow this same grouping.

Figure 1: Plan sections of the preferred route



Source: Balfour Beatty

2.3 Costing Elements

Scheme costs were broken down into the following headings for assessment:

- Construction costs including;
 - Pre-construction & preparation costs,
 - Design costs,
 - Highway and structures costs,
 - Staff costs,
 - Utilities costs,
- Inflation costs;
- Land costs;

- Business case costs;
- Warrington Borough Council costs;
- Wider network costs;
- Network Rail costs; and
- Maintenance costs.

Each of these are discussed further in the following sections.

2.3.1 Construction Costs

2.3.1.1 Pre-construction and preparation costs

These costs include for items such as site set up, traffic management during the works and special on-site provisions.

2.3.1.2 Design costs

Design costs have been assessed based on a percentage value (9%) of the construction costs. This has been benchmarked against other similar completed projects and reviewed by the design team. The design costs also include allowance for surveys to be undertaken to support design development and statutory body engagement costs, required to obtain necessary design approvals. The total cost included for design is £9.263m.

2.3.1.3 Highway and structures costs

Highway and structures costs were prepared based on the design drawings provided in Appendix D and in dialogue with the scheme designers to agree assumptions. The structures were broken down into route sections. These were measured in relation to:

- Type of structure;
- Under/overbridge and the crossing type road/water/rail;
- Abutment type; and
- Approach abutments.

The pricing data for the structures was based on completed structures. This allows all the temporary works and ancillary items that would not be included on the design drawings at this stage to be included in the Budget Costs.

Table 4 summarises the highway and structures costs for each route section.

Table 4: Highway and Structure Base costs excluding fees

Section Route Details	R01	R02	R03	R04	R05
	£	£	£	£	£
Site Preliminaries	£ 2,388,250	£ 160,000	£ 327,758	£ 184,418	£ 1,883,511
Site Clearance	£ 304,602	£ 289,723.45	£ 12,896	£ 169,293	£ 596,564
Fencing	£ 82,060	£ 68,371.60	£ 12,883	£ 280,874	£ 197,869
Safety Fencing	£ 127,088	£ -	£ 33,065	£ 109,145	£ 17,320
Drainage	£ 1,572,845	£ 1,021,149.45	£ 485,561	£ 950,573	£ 1,597,564
Earthworks	£ 5,610,388	£ 2,570,202.89	£ 7,981	£ 6,145,620	£ 1,972,275
Pavements	£ 1,444,218	£ 743,068.13	£ 23,218	£ 637,134	£ 1,357,908
Kerbs & Footways	£ 340,040	£ 467,968.54	£ 103,108	£ 370,369	£ 445,193
Traffic Signs	£ 327,843	£ 117,833.36	£ 7,714	£ 11,030	£ 129,672
Traffic Signals	£ 179,397	£ -	£ 50,707	£ 104,634	£ 219,476
Road Markings	£ 13,500	£ 4,500.00	£ 3,000	£ 4,500	£ 9,000
Street Lighting	£ 176,899	£ 86,292.00	£ 31,396	£ 91,800	£ 162,761
Electrical Work for Road Lighting and Traffic Signs	£ 159,733	£ 141,480.04	£ 32,029	£ 80,646	£ 151,866
Special Structures	£ -	£ -	£ -	£ -	£ -
Accommodation Works and Stats	£ 895,000	£ 86,100.00	£ -	£ 200,000	£ 300,000
Landscaping and Ecology	£ 938,757	£ 671,696.39	£ 120,985	£ 349,482	£ 342,102
Highways Structure	£ 3,066,122				
Roadworks Summary	£ 17,626,742	£ 6,428,386	£ 1,252,299	£ 9,689,519	£ 9,383,081
MSC Viaduct	£ 15,898,969				
Walton Viaduct	£ 2,785,032				
WCML Viaduct	£ 118,443				
Forrest Way Bridge			£ 6,476,424		
East Gaston Rail Viaduct				£ 738,822	
West Gaston Rail Viaduct				£ 1,565,038	
St Helens Canal Bridge				£ 558,074	
Cromwell Avenue Grade Separated					£ 1,754,947
Reinforced Earth	£ 1,021,141	£ -	£ 351,491	£ 4,195,007	£ 3,053,325
Structures Summary	£ 19,823,585	£ -	£ 6,827,915	£ 7,056,941	£ 4,808,272
Link Summary including Fees and WAO	£ 37,450,327	£ 6,428,386	£ 8,080,215	£ 16,746,461	£ 14,191,353

Source: Balfour Beatty

The largest single item cost is the high-level crossing of the Manchester Ship Canal at a base cost of £15.9m.

2.3.1.4 Staff costs

Staff costs include allowances for the construction site staff required to deliver the scheme. These have been prepared based on benchmarked market rates for relevant staff and assessed against an activity schedule developed by Balfour Beatty (included in appendix K). The total cost included for staff is £9.838m.

2.3.1.5 Utilities costs

An assessment has been made of the likely utilities diversions needed to deliver the scheme. This is based on C2 utilities information which is a desktop utilities search. The total cost allowed for utilities is £13.245m.

2.3.2 Inflation costs

The Building Cost Information Service, known as BCIS, is a provider of cost and price information for the UK construction industry. The data forecast from BCIS general civil

engineering indices has been used for the years 2018~2022 and has then been averaged to 5.4% over the design and construction period from 2018~2023.

Table 5: Inflation rates

Year	2018	2019	2020	2021	2022
Inflation rate (%)	3.0	3.4	5.2	6.1	5.3

Source: Balfour Beatty

Inflation has been accounted for in the cost estimate provided in Table 5. Inflation accounts for £24.613m.

2.3.3 Land costs

As part of project team, Lambert Smith Hampton (LSH) was appointed to provide information on the property and land costs for the scheme. This was £21.2m for the preferred route, based on the plan for permanent and temporary land required for the scheme. This figure is built up as shown in Table 6.

Table 6: Land Cost Estimate

Item	Value
Land Compensation	£17,300,000
Part 1 Claims	£2,000,000
Contingency	£1,900,000
Total	£21,200,000

Source: Lambert Smith Hampton

Further details of the items considered in the assessment of land costs are provided in Appendix L. A summary is given below.

2.3.3.1 Assessment of compensation

The land cost estimate and assessment of compensation are based on drawings produced by the project team that provide estimates for the temporary and permanent land required for the preferred route. These can be found in Appendix D.

LSH sub consulted to Terraquest to provide land ownership and use information based on the temporary and permanent land requirements drawings noted above. The drawings produced by Terraquest, which illustrate the parcels of land falling within the land take area can be found in Appendix L.

In preparing the assessment of compensation LSH considered the following:

- Value of land taken;
- Injurious Affection/Severance;
- Disturbance;
- Professional Fees; and
- Statutory Loss.

This is in line with the 'Compensation Code' which is a collective term used for the principles set out in Acts of Parliament, principally the Land Compensation Act 1961, the Compulsory

Purchase Act 1965, the Land Compensation Act 1973, the Planning & Compulsory Purchase Act 1991 and the Planning & Compulsory Purchase Act 2004. This is supplemented by case law relating to compensation for compulsory acquisition. The overarching principle which applies to the assessment of compensation is the principle of equivalence. Effectively this means that a person whose land is acquired compulsorily should be compensated so that they are financially no better nor no worse off than they were prior to the acquisition. Importantly values must be considered in a "no scheme world". The scheme for which a property is being acquired compulsorily must therefore be disregarded and any effect it may have on value cannot be taken into account.

The total potential compensation on a 'Most Likely' basis, excluding contingency, is estimated to be £17,300,000

2.3.3.2 Part 1 Claims

An assessment has been made of the likely compensation and fees that may be payable under Part 1 of the Land Compensation Act 1973 (as amended).

The assessment considered whether changes in the physical factors (noise, artificial lighting, dust, fumes, smell, vibration and the discharge of any solid or liquid substances) as a result of use of the public works, could affect the market value of surrounding residential properties.

Compensation is limited to the depreciation in property values caused by the physical factors, and the Act distinguishes those from non-compensable factors such as loss of view, amenity and privacy caused by the presence of the works.

The total potential compensation on a 'Most Likely' basis is estimated to be £2.0m. Although Part 1 claims have been included in scheme costs, it is not intended to request funding for Part 1 claims from Central Government. Funding of all Part 1 Claims associated with the scheme will be from the WBC funding contribution.

2.3.3.3 Contingency

A contingency of 10% has been included in the land cost estimate to reflect the uncertainty of the estimate at the current stage of scheme progression. Uncertainty relates to the early stage of design; the potential for change following further survey work and the need for a full land referencing exercise to be undertaken at the next stage of the programme.

2.3.4 Business case costs

These costs are for resource requirements to deliver the business case, outside of those covered by the design, pre-construction and staff costs noted above. They have been prepared based on an assessment of resource requirements and total £1.5m.

2.3.5 Warrington Borough Council costs

These costs are for WBC resource requirements outside of those covered by the design, pre-construction and staff costs noted above. They include allowance for:

- Client-side project management;
- Wider Council technical team inputs;
- Third party technical review, cost review and assurance; and

- Legal and expert witness support.

An allowance of £4m has been included based on an assessment of resource requirements for the above.

2.3.6 Wider network costs

An assessment was made of the likely impact of the scheme on junctions beyond the scheme boundaries. The details of this assessment are shown in the economic case. The cost assessment is based on improvement works being required in the area of Cromwell Avenue North and an allowance of £5m have been made.

2.3.7 Network Rail costs

As the scheme has three structures that affect the Network rail (NR) infrastructure, an allowance has been included in the cost estimate for the costs they will incur as part of the scheme implementation. This includes NR internal costs, APA/BAPA costs and Possession costs which totals £0.883m.

2.3.8 Maintenance Costs

WebTAG Unit A1.2 (Scheme Costs) states that traffic-related maintenance and renewal costs should also be considered in addition to capital investment costs. The potential financial costs of ongoing maintenance include:

- Planning and resurfacing of roads;
- Footways slurry seal;
- Gritting;
- Roadsweeping;
- Outfall and gully cleaning;
- Structural inspections;
- Repainting bridges;
- Bridge bearing replacement;
- Fencing repairs and replacement;
- Road restraint systems (RRS) replacement;
- Road sign maintenance; and
- Grass cutting and planting thinning.

The assessment of maintenance costs assumes a period from opening year of 2023 to 2082 with a budget of £42.070m, this equates to yearly maintenance cost of £0.225m/yr. There are peaks and troughs with the Maintenance cost as some of the works are carried out as part of annual highway maintenance, others such as planning and resurfacing the roads is carried out periodically as and when the top surface reached the end of its design life.

Operating costs have been included in the maintenance costs.

2.4 Summary of costs

2.4.1 Summary of total costs excluding risk

Total scheme costs excluding risk can be summarised as noted in Table 7.

Table 7: Summary of scheme costs (excluding risk)

Item	Cost
Pre-construction and preparation	£2.5m
Design	£9.263m
Highways and Structures	£93.08m
Staff	£9.838m
Utilities	£13.245m
Inflation	£24.613m
Land	£21.2m
Business Case	£1.5m
WBC costs	£4.0m
Wider Network Costs	£5.0m
Network Rail	£0.883m
Total without Maintenance	£185.12m
Maintenance	£42.07
Total with Maintenance	£227.19m

Source: Balfour Beatty

The scheme cost is considered proportionate and affordable to the scale of the issues identified in the Strategic Case and the predicted benefits of the scheme assessed in the Economic Case. The Options Appraisal Report (OAR) at Appendix A gives adequate consideration to other options for the scheme, which have all been discounted using a thorough and proven options appraisal process. The scheme cost has been derived from current and recently completed projects. The works have been quantified, based on the current scheme designs.

2.4.2 Summary of base costs by year excluding risks and maintenance

Table 8 below provides a breakdown of the scheme costs by year. Breakdowns that include risks and maintenance are included in Section 4.

Table 8: Base costs excluding risks and maintenance

Cost Item	Summary	2017	2018	2019	2020	2021	2022	2023
Preparation costs	£ 4.000	£ 1.334	£ 1.333	£ 1.333	£ -	£ -	£ -	£ -
Design & pre-construction	£ 9.263	£ -	£ 3.088	£ 3.088	£ 3.088	£ -	£ -	£ -
Construction - Highways	£ 49.832	£ -	£ -	£ -	£ 12.458	£ 12.458	£ 12.458	£ 12.458
Construction - Structures	£ 43.248	£ -	£ -	£ -	£ 10.812	£ 10.812	£ 10.812	£ 10.812
Construction - Staff	£ 9.838	£ -	£ -	£ -	£ 2.460	£ 2.460	£ 2.460	£ 2.460
Utilities	£ 13.245	£ -	£ -	£ 6.623	£ 6.623	£ -	£ -	£ -
Inflation	£ 24.613	£ -	£ 0.106	£ 0.854	£ 4.897	£ 4.863	£ 6.252	£ 7.642
Land	£ 21.200	£ -	£ 1.060	£ 2.120	£ 11.660	£ 2.120	£ 2.120	£ 2.120
Corporate and Project management	£ 4.000	£ 0.500	£ 0.750	£ 1.000	£ 1.000	£ 0.250	£ 0.250	£ 0.250
WBC Network Offsite Reinforcement	£ 5.000	£ -	£ -	£ -	£ -	£ 5.000	£ -	£ -
NWR Costs	£ 0.883	£ -	£ 0.200	£ 0.161	£ 0.161	£ 0.161	£ 0.161	£ 0.040
Total Base Cost £M's excluding QRA	£ 185.122	£ 1.834	£ 6.536	£ 15.178	£ 53.157	£ 38.123	£ 34.512	£ 35.781

Source: Balfour Beatty

Warrington Borough Council commissioned an independent review of Balfour Beatty's cost estimates from Faithful + Gould who checked and reviewed for consistency the costs noted in this section. They concluded that the construction costs for this scheme are robust and given the estimating tolerances are reasonable.

3 Quantified risk assessment

3.1 Quantified Risk Assessment (QRA)

3.1.1 QRA requirement

The scheme design is at an early stage of progression, approximately RIBA stage 2. As such there is significant development work required to be undertaken to progress the design through stages 3 and 4 to the point where the scheme can be constructed (stage 5). It is therefore important to recognise that there is uncertainty in the design and assumptions upon which the costs are based and to reflect this in a QRA. The QRA enables an expected value of the cost of the scheme to be calculated through the assessment of risk.

The following sections describe how a QRA has been produced for Western Link. The QRA relates to the delivery risks discussed in the management case.

3.1.2 QRA process

To establish an initial set of delivery risks, the scheme layout and a base QRA template was issued to all teams representing the key project elements and inputs, as noted below:

- Client;
- Overall programme;
- Business case process;
- Transport planning;
- Modelling;
- Highways/technical/drainage;
- Bridges/structures;
- Environment (in ecology, noise, air quality, landscaping, heritage);
- Geotechnical;
- H&S;
- Land;
- 3rd Party views and consultation; and
- Buildability/construction.

The base templates were populated with the top risks identified by the various teams. These were collated into a master spreadsheet. A workshop was then held with all the project teams being represented in a QRA panel. During this workshop each risk was discussed and either verified or discounted, the process also led to the identification of additional risks which were added to the register.

The risks were allocated a minimum, most likely and maximum cost with a percentage likelihood of occurrence based on the consensus of the QRA panel. This generated a 3-point probability assessment for each risk and enabled summation of the full list of risks to provide an overall QRA figure.

3.1.3 QRA results

The full QRA is included in Appendix O. Key assumptions of where risk has been calculated are stated in the QRA along with the likely impact and appropriate mitigation measures.

The total QRA cost generated is £27.621m

The top three risk components from the QRA are outlined in Table 9. The risks have a low-medium likelihood of occurring following mitigation. Mitigation measures will continue through further scheme development and implementation to manage the risk of occurrence.

Table 9: Top three risks identified in the QRA risk register

Risk event	Consequence	Mitigation	Probability	Impact on cost
Contaminated Land	Additional Cost	Site Investigation to be thorough, develop remediation rather than disposal	50%	£3.305m
Design Scope	Additional Cost and Time	Project Team to develop robust scope and manage change	55%	£5.844m
Traffic Modelling on WBC Network	Additional Scope	Challenge the modelling and WBC network	50	£3.75m

Source: Mott MacDonald/Balfour Beatty

The top three risks identified above total £12.899m, which is 47% of the total QRA.

3.2 Monte Carlo Simulation

A Monte Carlo simulation was carried out on QRA output spreadsheet included in Appendix O. The Monte Carlo simulation takes the probability based risk register as an input and generates a large number of randomised iterations with associated risk costs. This generates a range of outcomes with associated probabilities of occurrence, presented as a statistical representation of the probability of the outcome.

The Monte Carlo analysis is important as it enables scenario based analysis to be generated to inform the assessment of risk and sensitivity testing of the project.

The Monte Carlo analysis suggests that in 50% of cases the costs associated with risk will not exceed £27.7m (known as the 'P50' or 'median' risk value).

The value of risk included in the project costs presented in the financial case is £27,621,131 based on the QRA discussed in section 3.1. The P50 value returned by the Monte Carlo analysis is seen as a validation of the figure obtained from the QRA as it is within 0.5%.

The Monte Carlo analysis shows that in 80% of cases, the costs associated with risk will not exceed £36,260,313 (known as the P80 value). This value has been used as part of the sensitivity testing described in the Economic Case.

Further details can be found in Appendix O.

4 Scheme costs adjusted for risk

This section provides a cost estimate adjusted for risk calculated in the previous sections. It uses the calculated base costs and the risk allowance (QRA value), to give a total scheme cost.

4.1 Scheme costs adjusted for risk, excluding maintenance

A summary of the base scheme costs adjusted for risk excluding maintenance is provided in Table 10.

Table 10: Base costs, adjusted for risk by year, excluding maintenance

Cost Item	Summary	2017	2018	2019	2020	2021	2022	2023
Preparation costs	£ 4.000	£ 1.334	£ 1.333	£ 1.333	£ -	£ -	£ -	£ -
Design & pre-construction	£ 9.263	£ -	£ 3.088	£ 3.088	£ 3.088	£ -	£ -	£ -
Construction - Highways	£ 49.832	£ -	£ -	£ -	£ 12.458	£ 12.458	£ 12.458	£ 12.458
Construction - Structures	£ 43.248	£ -	£ -	£ -	£ 10.812	£ 10.812	£ 10.812	£ 10.812
Construction - Staff	£ 9.838	£ -	£ -	£ -	£ 2.460	£ 2.460	£ 2.460	£ 2.460
Utilities	£ 13.245	£ -	£ -	£ 6.623	£ 6.623	£ -	£ -	£ -
Inflation	£ 24.613	£ -	£ 0.106	£ 0.854	£ 4.897	£ 4.863	£ 6.252	£ 7.642
Land	£ 21.200	£ -	£ 4.000	£ 7.000	£ 10.200	£ -	£ -	£ -
Corporate and project management	£ 4.000	£ 0.500	£ 0.750	£ 1.000	£ 1.000	£ 0.250	£ 0.250	£ 0.250
WBC Network Offsite Reinforcement	£ 5.000	£ -	£ -	£ -	£ -	£ 5.000	£ -	£ -
NWR Costs	£ 0.883	£ -	£ 0.200	£ 0.161	£ 0.161	£ 0.161	£ 0.161	£ 0.040
Sub-total	£ 185.122	£ 1.834	£ 9.476	£ 20.058	£ 51.697	£ 36.003	£ 32.392	£ 33.661
QRA	£ 27.621	£ -	£ -	£ 5.524	£ 5.524	£ 5.524	£ 5.524	£ 5.524
Total cost £Ms	£ 212.743	£ 1.834	£ 9.476	£ 25.582	£ 57.222	£ 41.528	£ 37.916	£ 39.185

Source: Balfour Beatty

4.2 Scheme costs adjusted for risk including maintenance

A summary of the base scheme costs adjusted for risk including maintenance is provided in Table 11.

Table 11: Scheme costs, adjusted for risk by year, including maintenance

Item	Total (£m)	2017	2018	2019	2020	2021	2022	2023	2023-32	2033-42	2043-52	2053-62	2063-72
Base costs	212.743	1.834	9.476	25.582	57.222	41.528	37.916	39.185					
Maintenance costs	42.070								57.222	41.528	37.916	39.185	57.222
Operating costs													
Total	254.813	1.834	9.476	25.582	57.222	41.528	37.916	39.185	57.222	41.528	37.916	39.185	57.222

Source: Balfour Beatty

Figure 2 below displays these costs graphically.

Figure 2: Scheme costs, adjusted for risk by year, including maintenance



Source: Balfour Beatty

5 Funding arrangements

5.1 Preferred funding arrangements

This section sets out how much funding is being sort through DfT funding and how much is being contributed by Warrington Borough Council (WBC).

The total scheme cost, excluding maintenance, is £212.74m. The proposed scheme funding mix is a combination of funding awarded by the central government and prudential borrowing by WBC. The proposed funding profile is based on a funding bid from central government of 67% of the scheme costs, totalling £142.5m. WBC is proposing to meet the remaining 33% of the scheme costs of £70.2m. Table 12 shows the proposed funding mix for the Western Link scheme.

As noted in section 2.3.3.2 Part 1 claims have been included in scheme costs, but it is not intended to request funding for them from Central Government. Funding of all Part 1 Claims associated with the scheme will be from the WBC funding contribution.

Table 12: Western Link cost profile (£m)

Funding Source	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	Total
Central government (67%)	£ 14.16	£ 15.54	£ 35.66	£ 23.68	£ 26.29	£ 27.22	£ 142.54
WBC Contribution (33%)	£ 6.97	£ 7.66	£ 17.56	£ 11.66	£ 12.95	£ 13.41	£ 70.21
Total	£ 21.13	£ 23.20	£ 53.22	£ 35.34	£ 39.23	£ 40.62	£ 212.75

Source: Warrington Borough Council

The council is in discussion with the DfT and DCLG/HCA regarding a potential split of contributions between central government departments that would effectively lessen the burden on the DfT's Large Local Majors fund by securing a DCLG/HCA contribution of £53m. These discussions will continue over the coming months and the DfT will be updated following confirmation of the DCLG/HCA contribution

In November 2017, WBC Executive Board was asked to approve a drawdown of £70.21m to support the delivery of the Western Link. The decision was taken on the condition of achieving funding from the DfT, with the decision being returned to Executive Board for detailed confirmation following any successful award.

5.2 Accounting Implications

5.2.1 Capital Allocation for Scheme

Table 12 above identifies the total project cost profile, however, the proposed contribution of WBC has some wider accounting implications. WBC has outlined the real cost to the council, including the cost of the interest payments, in Table 13.

Table 13: Total Project Cost to WBC (over 40-year period)

Cost Item	Estimated Cost
WBC capital borrowing	£70.21m
Total interest on borrowing (over 40 years)	£43.18
Total revenue liability	£113.39m

Source: Warrington Borough Council

The total project costs (including interest on borrowing), income generated through the new scheme new homes bonus, land sales and National Non-Domestic Rates (NNDR) and WBC's net revenue impact over a 40-year period is shown in **Table 14**. The revenue calculations are based on 'ringfencing' all New Homes Bonus and NNDR from developments within the Waterfront area (incorporating the Warrington Waterfront area in the Local Plan, housing plots).

Table 14: WBC borrowing repayment profile

Item	Cost/Payback
New Homes Bonus & CIL (based on 1,015 new homes ¹)	£9.5m
NNDR	£86.4m
Receipts from Land Sales	£21.2m
Total	£117.1m

Source: Warrington Borough Council

5.2.2 Maintenance Allocation for Scheme

The ongoing maintenance costs for the Western Link are estimated at £42.07m over a 60-year period. This is outlined in section 2. The annual maintenance costs for the scheme vary year-on-year depending on the level of maintenance that is required. Annual general maintenance averages £20-30,000 per year and will be covered under the Highways Maintenance formula. WBC only has information of a 5-year allocation at present, as funding is allocated on a five-year basis. Table 15 shows the current formula grant.

Table 15: Highways Maintenance Funding formula allocations, 2015/16 to 2020/21

Total Allocation (£) 2015/16	Total Allocation (£) 2016/17	Total Allocation (£) 2017/18	Total Allocation (£) 2018/19	Total Allocation (£) 2019/20	Total Allocation (£) 2020/21
3,195,000	2,929,000	2,841,000	2,571,000	2,571,000	2,571,000

Source: Warrington Borough Council

Larger maintenance funding allocations are required at future intervals from 2032 to 2082. This is to cover larger maintenance items such as:

- Planning and resurfacing of the carriageway;
- Slurry sealing the footways
- Structural inspections;
- Repainting bridges;
- Replacing bridge bearings; and
- Maintenance / replacement of fencing, RRS and road signs.

¹ Based on build out over a 60 year period

The above will require specific funding allocations to enable maintenance activity, as the cost ranges from £0.856m in the early years to £13.02m up to 2082.

5.3 Alternative funding arrangements

Other funding sources that have been considered are set out in Table 16.

Table 16: Alternative funding options

Option	Description	Why discounted
DfT, WBC and CLG funding mix. This would reduce the funding request from DfT to £90m	WBC is in discussion with CLG regarding an agreement to provide funding for infrastructure in Warrington	A formal agreement with CLG has not been reached at the time of submission to the DfT
Increased WBC borrowing, no DfT submission	WBC would need to borrow the entire cost of the scheme which would expose the authority to a higher level of debt burden	WBC is not in a position to borrow over £200m of capital funding for the scheme

Source: Warrington Borough Council

