Department for Transport

Structures Fund template

This template is for local authorities proposing schemes for investment from the Structures Fund. Before completing the template, local authorities should read the Structures Fund guidance and associated documents. Alongside the template, local authorities must also complete the economic toolkit for the proposed scheme.

Part 1 – Details of the Structure Being Promoted

1.1 Scheme Information

This section captures the key information on the scheme that is being proposed to the Structures Fund.

a) Local highway authority (LHA) name: Leeds City Council

b) Scheme / structure name and LHA bridges number: Leeds Inner Ring Road (LIRR) Package including : L00009 Wellington River Bridge; L00242 Wellington Street Viaduct; L00243 New Wellington River Bridge

c) Location (OS Grid Reference) of the scheme/structure (to identify location on map):

Easting: L0009:428925.096977 / L00242:429061.389969 / L00243:428943.27598

Northing: L0009:433434.601983 / L00242:433560.05100 / L00243:433421.980991

d) Name of Project Manager: Robert Ingall

e) Email address: Robert.ingall@leeds.gov.uk

f) Phone number: 0113 3787535

g) What type of eligible structure would your scheme address? (select all that apply)

☒	Bridges	☐	Cutting/embankment
☐	Fly-overs	☐	Tunnels
☐	Retaining walls	☐	Local highway repairs due to landslip
☐	Culverts	☐	Local highway repairs due to collapse
☐	Other structure type (please specify): Click or tap here to enter text.		

h) Provide an overview of the structure proposed for intervention and the nature of the problem. (Maximum 250 words)

This could include, for example, the age, construction type, feature carried and feature crossed of the relevant structure and if the structure has listed heritage status.

The LIRR is central to the city's transport network, accommodating up to 86,000 vehicles / day. It is considered essential to support both economic growth and the functioning of the city itself.

3 structures have been identified requiring major maintenance. Packaged on the basis of location, maximising efficiencies through shared TM, compounds and access arrangements. These are:

- L00009 – 30.5m span 3xparallel masonry arch (c. 1818). Contiguous with L00243.
- L00242 - 4xspan steel-composite viaduct, overall span 100m (c. 1971).
- L00243 – 32m span precast, post-tensioned beam construction (c. 1973).

L00009 & L00243 whilst built at different times are effectively one structure as they are physically connected to each other. L00009 and L00242 are in fair critical condition (BCI crit) and require intervention to arrest deterioration, protect structural performance and extend service life. L00243 is in good overall condition, but in addition to forming a single structure with L00009, requires strengthening works. Without this the risk of deterioration and capacity constraints continues to increase the risk on a route of exceptional strategic importance. It would be physically and technically difficult and counter-productive to carry out works to L00009 separate from L00243.

Intervention is required before 2030 because of the overall quantum of works required on the LIRR. Delay will result in a greater number of interventions required than the network permits, reducing efficiency, increasing the likelihood of disruptive restrictions. LIRR is also an SRN diversion and forms part of a wider programme coordinated with National Highways to protect city wide resilience / stability.

i) Provide an overview of the proposed intervention and how the works will address the problem.

This should set out the method of resolving the issue that is to be addressed.

It is a coordinated package of major maintenance, strengthening and targeted refurbishment across the three structures, designed to secure the long-term safety, functionality and resilience of this critical section of the LIRR. The works to L00009 and L00242 will address the most pressing condition-related risks through major structural maintenance intended to arrest deterioration and extend service life, including strengthening of substandard elements, parapet upgrades, replacement of substandard cantilevers, protection of vulnerable piers and full refurbishment of key durability components such as waterproofing, drainage, surfacing, expansion joints and bearings. For L00243 the similar scope of works will be required in terms of waterproofing and surfacing (as they are a single entity in this respect) as well as the strengthening works

The package will be delivered as a single, coordinated intervention to maximise efficiency through shared traffic management, access arrangements and site compounds, reducing overall disruption and improving value for money. This approach will address both existing structural deficiencies and the underlying causes of deterioration, while also futureproofing the corridor against operational restrictions on a route that is strategically important to Leeds and performs an SRN diversion function. Early funding is essential to enable these works to be delivered in a planned way before 2030, avoiding delivery bottlenecks associated with the wider LIRR programme and reducing the risk of more disruptive, reactive intervention in future.

j) Is any part of the relevant structure owned by a third-party (e.g. the Canal and River Trust or Network Rail)?

No, the structures are owned by Leeds City Council.

k) If the structure is on a diversion route for the SRN provide a clear description/commentary.

The structure package is located on a corridor that plays a critical resilience role within the Leeds highway network, supporting diversionary routes associated with the Strategic Road Network, particularly via the M621. These Leeds routes act as key links between the city network, the wider major road network and the SRN. As a result, any restriction affecting these structures would have consequences beyond the immediate corridor, weakening the network's ability to accommodate diverted traffic, increasing congestion on alternative urban routes and reducing overall resilience during incidents and major works. Investment in these structures is therefore important not only for local asset condition but also for maintaining a robust diversionary function and protecting network performance at city and regional level.

1.2 Understanding the Condition of the Structure

Please set out the current condition of the structure in this section.

a) Provide evidence that the relevant structure is in need of repair either now or by the end of the 2029/30 financial year. (Maximum 250 words)

Provide details of the process used for determining whether this structure is in need of repair and the timescale in which the repair is needed..

The structures are subject to periodic inspection and condition assessment using a nationally recognised methodology (Inspection Manual for Highway Structures and CSS guidance). These condition ratings are then used in deterioration modelling to identify when intervention is likely to be needed and when operational restrictions may arise. Assessment shows that works are required within the funding period to prevent further deterioration and reduce the risk of restrictions on this section of the LIRR.

L00009 (River) and L00242 (Viaduct) have a critical condition in the fair range and require major maintenance to arrest deterioration and extend service life. Without planned intervention, they will continue to worsen and restrictions or temporary mitigation measures will be required before the end of 2029/30. L00243 (New River) is in good overall condition, it is essentially a single structure alongside L00009, whilst it requires strengthening, particularly to footways, supporting active travel provision and future network requirements, the reason for its inclusion is that it would be technically challenging to carry out works to L0009 alone. Although these structures are not all currently in the same condition category, intervention is still required within the funding period to allow the package to be delivered in a single coordinated programme and to avoid inefficiencies and delivery conflicts with the wider LIRR programme before 2030.

This need is heightened by the strategic importance of the route, which carries very high traffic volumes and forms part of a wider programme of works needed to maintain capacity, resilience and long-term network performance.

b) Please indicate if the relevant structure is **currently** subject to traffic restriction as a result of its condition.

Reference should be made to closures, weight limits, width restriction, limits on use.

The structures are not currently subject to traffic restrictions.

c) Please indicate if the relevant structure is **not currently** but **by the end of the 2029/2030 Financial Year is expected** to be subject to traffic restriction as a result of its condition.

Reference should be made to closures, weight limits, width restriction, limits on use that are anticipated.

Based on periodic inspections, condition assessments and deterioration modelling, there is a high confidence that restrictions would become increasingly likely by the end of 2029/30 if the proposed works are not undertaken. Without intervention, continuing deterioration is expected to increase the likelihood of measures such as lane restrictions, load management or other operational controls being required to manage risk and maintain safety on this section of the LIRR.

d) If the answer to c) above is yes, then please estimate the likelihood of this occurring: (select box that applies):

☐ Low confidence in restriction occurring
☐ Medium confidence in restriction occurring
☒ High confidence in restriction occurring

e) Please indicate if the relevant structure is **currently** subject to other temporary measures to manage risk.

Reference should be made to measures such as propping, etc.

The structures are not currently subject to any temporary measures.

f) Please indicate if the relevant structure is **not currently** but **expected by the end of the 2029/2030 Financial Year** to be subject to temporary measures to manage risk.

Reference should be made to measures such as propping, etc. that is anticipated.

Based on periodic inspections, condition assessments and deterioration modelling, there is a high confidence that temporary measures would become increasingly likely by the end of 2029/30 if the proposed works are not undertaken. Without intervention, continuing deterioration is expected to increase the likelihood of measures such as lane restrictions, load management or other operational controls being required to manage risk and maintain safety on this section of the LIRR. It is expected by 2035 that closure of the LIRR would be required to manage the increased risk.

g) If the answer to f) above is yes, then estimate the likelihood of this occurring:

☐ Low confidence in temporary measures being required
☐ Medium confidence in temporary measures being required
☒ High confidence in temporary measures being required

h) If available and applicable, what is the current Bridge Condition Indicator score (average and critical) of the relevant structure?

BCI Crit: L00009 – 55.48, L00242 – 58.0, L00243 – 81.0 (see above explanation)

BCI Ave: L00009 – 76.7, L00242 – 85.0, L00243 – 85.12 (see above explanation)

i) Which elements of the structure are negatively contributing to the BCI scores and how has this changed in the last 5 years.

Reference should be made to recent inspections and highlight the type and extent of the defects.

L00009 – 76.7(A) / 55.48(C) (2026) 87(A) / 79(C) (2021)

The primary deck element (arch barrel) displays cracking and spalling to the stonework is deteriorated over last 5 years. The waterproofing layer is showing signs of failure with water seepage and reflective cracking in the carriageway.

L242 – 85.5(A) / 58(C) (2025) 86(A) / 58(C) (2020)

The secondary concrete deck shows spalling around drainage openings, with abutment cracking up to 2mm wide. Waterproofing defects, reflective carriageway cracking, joint deterioration and painting requirements have also been identified.

L00243 New Wellington River Bridge is in good overall condition, but as it forms a single effective structure it will require some shared works with L00009 as well as requiring strengthening, particularly to footway elements, to support active travel provision and future network requirements. Although these structures are not all currently in the same condition category, intervention is still required within the funding period to allow the package to be delivered in a single coordinated programme and to avoid inefficiencies and delivery conflicts with the wider LIRR programme before 2030.

j) Submit, alongside this submission template, the most recent, dated copy of the structural inspection proforma or a report summarising this.

Part 2 – Understanding the Case for Investment

2.1 Strategic Case

This section of the template captures the wider need for the scheme and how it aligns to the objectives of the Structures Fund.

a) Provide a summary of how this scheme contributes to the Government's economic growth mission (Maximum 250 words)

Describe how the proposal will support economic growth (e.g. by creating jobs, attracting investment, improving productivity, or enabling new business activity) and set out the mechanisms through which these benefits will be delivered.

The LIRR is vital to the movement of people and goods, providing access to the city centre, employment areas and wider economic activity. Maintaining this route protects a key piece of infrastructure that supports the economic growth of the Leeds City Region.

The LIRR provides crossing points over the River Aire carrying 86,000 vehicles a day. Alternative routes rely on the M621 or upstream structures which have capacity issues due to local network constraints.

Any loss of capacity would hinder access to existing and future employment sites, undermine wider regional growth objectives. The Government is currently considering Leeds Southbank as a New Towns location, providing 20,000 new homes. This is contingent on the ability to reduce through traffic in Leeds, for which the proposed structures play a key role in the alternate routing strategy.

Dept Business & Trade "Invest 2035" identifies regional cities including Leeds, as being central to driving growth and productivity. Leeds is recognised as a hub for financial services in the UK – one of the 8 core growth driving sectors in the policy. These works support growth by reducing the risk of future restrictions on a route of exceptional strategic importance. Without intervention, deterioration of the structures increases the likelihood of restrictions or temporary measures, leading to congestion, weaker network resilience and disruption to the movement of labour, freight, public transport and essential services. The proposed works will help maintain capacity, strengthen resilience and support continued economic activity, future development and investment across Leeds and West Yorkshire.

b) Explain how the scheme supports other Government policy objectives. (Maximum 250 words)

Provide a summary of the scheme's alignment to UK Government policy objectives as represented by the remaining missions.

<u>Health and Wellbeing</u>

The LIRR allows movement of traffic around Leeds, without this vital link traffic disruption would be untenable and cause significant negative impacts to environmental, economic and transportation metrics with knock on impacts for the health and wellbeing of the city's population and future investment and economic outlook.

The impact of the increased traffic would impact local residents along the official diversion route and secondary highway network. Residents of these areas would be likely to face elevated risks of respiratory disease, chronic stress, sleep disruption. Gridlocked traffic networks are also hostile to active travel, discouraging cycling and walking as a result of safety concerns and exposure to increased pollution.

<u>Net Zero</u>

These works future proof network capacity and resilience, maintaining the key route. Lack of future works will result in loss of capacity and restrictions on this key route, causing additional congestion and lengthy diversionary routing to access other river crossing points.

The additional vehicle miles and extended trip duration would lead to an increase in fuel consumption and CO2 emissions, and modal shift away from public transport.

Preventing deterioration from progressing, the scheme also supports broader objectives around infrastructure resilience, efficient movement and long-term network performance. In doing so, it will help sustain the conditions required for economic activity, public service access and lower-disruption travel.

c) Explain why this scheme is a local priority. (Maximum 250 words)

Provide a summary of the scheme's alignment to local priorities and policies.

The LIRR is one of the most critical sections of the Leeds City Region traffic network. It is central to the movement / traffic strategy for Leeds City Centre, carrying approx. 86,000 vehicles per day. The evidence from principal inspection data estimates that over a third of the structures on the LIRR will deteriorate to a poor condition within 10 years leading to closures / restrictions which will have significant impact upon the functioning of the traffic network. Without short term intervention the key gateway to the City will be at risk of major congestion therefore is a significant priority for LCC.

This structure package is a local priority because it helps protect the functionality of the LIRR. The LIRR circulates general traffic around the city centre, allowing for public transport priority schemes and cycling provision through the core area. Should the West Yorkshire Mass Transit system progress, this would displace additional general traffic from the city centre, increasing the reliance on the LIRR. The deterioration of structures on the route presents a material risk of future restrictions, which would undermine network resilience, increase congestion and weaken the city's ability to support efficient movement.

It is also a priority because the works form part of a wider coordinated programme on the LIRR that must be delivered in a planned way before 2030 to avoid delivery bottlenecks and more disruptive reactive intervention.

d) Summarise engagement with local stakeholders, any joint-owners, levels of support for the scheme and explain any controversial elements. (Maximum 250 words).

Summarise support from relevant stakeholders such as the Local MP, Elected Members relevant combined authorities, National Highways, Network Rail, neighbouring LHAs, or important utility providers.

The LIRR forms a strategic part of the Leeds City Centre Package which has been the subject of city-wide consultation process which received overall positive response. With regards to the LIRR itself There are numerous key stakeholders such as Leeds Teaching Hospitals Trust (LTHT), University of Leeds (UoL), multiple residential and commercial properties along the LIRR, bus companies, blue light organisations.

Long term consultation has been ongoing with the LTHT and UoL as they own / lease properties that oversail the LIRR (which are not affected by this package of works but form part of the later programme). A consultation process is in place with stakeholders affected by the proposed works, managed by LCC comms team which will include amongst other bus operators, blue light

organisations, adjacent property owners etc. All local councillors responsible for wards affected by the works will be consulted as per standard LCC governance processes. Whilst Network Rail have nearby assets, they are not directly affected by the proposals.

All consulted stakeholders share the view and are aware that failure to maintain the LIRR will lead to catastrophic congestion and loss of access to services and businesses in the city centre.

e) Provide a summary of the local approach to prioritisation of structural maintenance work. (Maximum 250 words)

Set out any weighting, scoring or other methodology which explains why this scheme has not been subject to work prior to this point.

The council's highway structures are continually monitored for condition and maintenance needs. Prioritised planned maintenance and strengthening programmes are developed to maintain the assets in a safe and serviceable condition appropriate for their use together with a view to minimising whole life costs and negative environmental impacts where appropriate. The programme targets structures that pose the greatest immediate risks to the network with the remaining structures being managed either through dedicated monitoring inspections or as a part of the regular inspection regime to check their condition. Through the management of the structures stock the service endeavours to reduce the percentage of structures in need of essential repair. However, this measure of stock health has seen a rising trend since 2009 and is currently at 39.5% (36.5% 2025/26). This is expected to continue increasing year on year, reflecting the level of funding forcing a managed decline stock strategy. There are several factors contributing to this rise including an ageing structure stock, major schemes (with substantial risks) absorbing large percentages of the available budget, short term fixes (as opposed to complete solutions) and a short fall in and historic uncertainty around long term funding. Further details of infrastructure management are available in the LCC Highway Infrastructure Asset Management Strategy - https://www.leeds.gov.uk/plans-and-strategies/highways-infrastructure-asset-management-strategy and the Highway Structures annual report - https://democracy.leeds.gov.uk/ieDecisionDetails.aspx?ID=58700

f) Provide a summary of why this scheme has been selected for this application to the Structures Fund. (Maximum 250 words)

Provide a brief summary of the specific need for this structure is advanced to the Structures Fund.

This package of works includes a vital set of highways infrastructure assets (3 nr bridges) that are suffering from evident deterioration and as identified above the LHA does not have funding within current and forecasted capital budgets to carry out the necessary works required to mitigate the risk of future closure / restrictions. Restrictions / closure of any of these assets will have a significant impact upon the city and surrounding communities as a result of the impact of the necessary diversion routes. Should the project be successful, the scheme is sufficiently developed in terms of scope of works to be deliverable within the DfT timescales of March 2030. There is a clear understanding of the extent of works required to each structure and there is sufficient timescale available to develop and deliver the necessary outcomes. Funding for the project will enable the City Region to continue to focus on delivering against key government targets of growth in the region and avoiding the significant reduction in growth should these structures continue to deteriorate leading to future closures.

g) Summarise the impacts of not delivering this scheme (Maximum 250 words).

The response should consider the impact of not delivering the scheme, such as community severance, lengthy diversion routes or impacts on other infrastructure.

If this scheme is not delivered, the condition of the relevant structures on the LIRR will continue to deteriorate, increasing the likelihood of future restrictions, emergency intervention or structural failure on one of the most strategically important routes in Leeds. Any restrictions or closure of any of assets on this route would have a significant impact on the city and surrounding communities because of the importance of the corridor and the diversion routes that would be required.

A recently submitted a programme wide LIRR Strategic Assessment identifies that, at current expenditure levels, approximately one third of the major structures on the route will deteriorate to poor condition within 10 years. A structure reaching poor condition would indicate a materially increased risk of defects progressing to the point where restrictions, temporary mitigation measures or, in the worst case, structural failure and full closure may be required to maintain safety.

Loss of capacity on the LIRR will affect future regional strategic economic goals and access to existing and new employment sites. In addition, traffic modelling undertaken for the strategic assessment indicates that closure of sections of the LIRR has impacts not only locally, but across the wider city and key and strategic road networks, including the M621, M62 and M1. Not delivering the scheme would therefore risk severe network disruption, undermine wider investment and increase reliance on reactive maintenance rather than planned intervention.

h) If applicable, explain how the scheme helps prevent the likelihood of community severance for all transport modes and the impact that this severance would have or already has. (Maximum 250 words)

Answers should explain the impact on connecting local people to facilities, services, employment, education and local communities. The response should also summarise the extent of diversions for communities, which modes are impacted and how. Applicants may wish to use the guidance in TAG A4-4 Social Impact Appraisal.

The LIRR is a key part of the strategic road network serving Leeds City Region serving 86,000 trips a day. Failure to complete the works and closures / restrictions of the structure will have a significant impact on a key gateway into the City. Residents from west Leeds, Bradford and Huddersfield would be impacted by diversions and congestion to access key education, employment, entertainment and medical facilities in Leeds city centre.

The resulting network disruption has been modelled and with impacts on the M62 and M1 to the south and east of Leeds.

The increase in congestion on secondary routes, and disruption of the primary route will impact on bus routes into the city centre, impacting low income households who are reliant on public transport. Many bus services utilise the route and a large percentage of which serve communities higher on the depravation index, adversely affecting already disadvantaged communities. The diversion routes are considerable which would disadvantage a number of neighbouring communities who would become overwhelmed by the displaced traffic.

Experience of previous closures also saw significant usage of unofficial routes which caused significant congestion in those areas such as Kirkstall which are highly residential areas.

By reducing the risk of those outcomes, the scheme will help protect connectivity for all transport modes and reduce the likelihood that surrounding communities experience severance effects caused by displaced traffic, reduced accessibility and less reliable journeys.

i) Summarise the volumes of traffic by mode that are impacted as a result of any community severance (Maximum 250 words).

Explain the impacts on non-motorised and motorised traffic flow. Describe how diversions may differ by mode.

The LIRR carries 86,000 vehicles / day, providing crossings over the River Aire including a grade separated junction over the West Street gyratory. Leeds is split by the river Aire with four strategic river crossings and two minor crossing, in addition to 3 city centre structures with movement restrictions. The closure of this key strategic structure would displace traffic to the other 5 sites. Refer to the Economic toolkit for maps detailing the wider network impact, but significant displacement is visible across the whole of Leeds and regional motorway.

The severance would be most noticed in the communities directly adjacent to the structure in Armley and Holbeck which are nationally in the lowest 10% of deprived areas.

Approximately 500 buses a day use the Wellington River Bridge crossings connecting west Leeds, Bradford and Huddersfield to Leeds city centre. The loss of the direct link and impact to bus services could generate significant model shift, and these communities often rely on interchanging between bus services to access employment, and may shift to car as a more direct mode, generating additional vehicle trips on the network.

The route serves 7,000 HGVs per day, for the movement of goods into the city centre and north Leeds. It is expected a majority would use the other half of the ring road, but an increased number would still use the local road network impacting on communities.

Sections of the area are motorway classification and therefore restricted to pedestrians and non-motorised users.

2.2 Economic Case

This section sets out the assessment for Value for Money of the project. Applications must use the provided economic toolkit, but if alternative methods have also been used to support the economic case, this section provides the opportunity for the results to be reported.

a) Set out the key sources for the economic benefits (e.g. journey-time savings, carbon, etc.) of the scheme. (Maximum 250 words)

Describe the main benefits the scheme is expected to deliver.

The proposed structure is on LIRR and carries 86,432 (AADT 2026) vehicles a day in both directions. Failure to secure funding would result in a full closure of the structure by 2035 with significant impact to LIRR, surrounding local and strategic network and incremental restrictions leading to that point.

The primary benefits of the scheme as assessed in the economic toolkit come from journey time savings.

A TUBA run based on a recent SATURN scenario is provided with primary benefits from Journey Time savings and marginal external costs as calculated by TUBA.

A qualitive statement on non-monetised benefits is given in section e).

b) Summarise the estimate of the present value of costs and benefits (in 2023 present values, market prices) and the benefit cost ratio of the scheme from the economic toolkit.

Present Value Costs (PVC)	21,583,558
Present Value Benefits (PVB)	5,051,431,567
Benefit to Cost Ratio (BCR)	234.0

c) Explain assumptions used in the economic toolkit to estimate the present value scheme costs. (Maximum 250 words)

Describe the basis of the costs input to the economic toolkit and provide justification for the risk and optimism bias values that have been used.

LCC have already procured a Design and Build contractor on a framework and they have been supporting estimates for costs.

Estimates for the capital expenditure is £35m.

Using guidance in TAG Unit A1-2, Optimism Bias is set at 28% as per table 7 for a scheme at Stage 3 and Risk has been set at 20%.

For Operating, Maintenance and Renewal costs, repeat maintenance of similar scope and scale is expected every 15 years with a nominal 2026 value of £2m. in addition a £10m sum is expected after 35 years for further significant maintenance due to the age of the structure. And annual inspections are required every year for a nominal cost of £40,000.

Using inflation figures in TAG Data Book 2.02 Table A1.2.1, future year costs were calculated and are presented in the Economic Toolkit.

Using TAG guidance for structures, Optimism Bias is set at 28% and Risk is at 20%.

d) Explain the sources of data and assumptions used to complete the Scheme Details section of the economic toolkit. (Maximum 250 words)

Provide details of the source of all data and associated assumptions (e.g. provenance, data checks, etc).

LCC maintains permeant count sites on the LIRR which have been used to report on AADT.

LCC maintain a SATURN model for strategic highway modelling of schemes and has been validated against local network performance for a prior scheme. As this structure is within a high density urban area with several alternate route options available, a test in SATURN has been used to identify the primary diversion route of vehicles and anticipated volumes. Plots are provided in the Economic Toolkit detailing the rerouting.

The SATURN model has also been used to report on speeds for the diversion route and Do-Something route.

No carbon assessment has been undertaken for the draft submission. This is a maintenance scheme conducting concrete repairs rather than structural element replacements, as such the tCO2e cost is expected to be low with a small amount of carriageway resurfacing required. A rough estimate using the National Highways Carbon Toolkit estimates 500 tCO2e could be generated for the resurfacing works.

e) Describe significant non-monetised impacts of the scheme. (Maximum 250 words)

Consider any economic, environmental and social impacts that have not been monetised to fully describe the impacts of delivering the scheme.

Non-monetised impacts usually assessed include Noise, AQ, Landscape, Townscape, Historic, Biodiversity and Water.

As a maintenance scheme of a pre-existing structure with no anticipated change in AADT, there should be no impact to these conditions in the Do-Something proposal.

In the Do-Nothing scenario where without repairs the bridge would close in 2035, there would be significant highway disruption and re-routing. This would lead to congestion on the adjacent river crossings up and downstream, and significant secondary impacts on the adjacent network from rerouting. With an AADT of 86,000 this disruption would impact the local and strategic highway network in the vicinity. This would impact negatively on Noise and AQ for residents along these routes and affect Biodiversity along the alternate network due to an increase in traffic and likely peak spreading.

There would be a slight positive impact in the immediate vicinity of the closed structure due to the removal of traffic and demolition of the bridge.

f) Where an alternative economic assessment has been undertaken to support a case for investment, please summarise the data used, the assumptions made and the results obtained (in 2023 present values, market prices). (Maximum 250 words)

Some schemes may have been subject to economic assessment to support previous cases for investment. Summarise the key details of these here, including details of the data, assumptions and results (e.g. present value of costs and benefits and benefit cost ratio).

This scheme has not been subject to prior economic assessment.

LCC maintain a SATURN strategic model which was validated and used for testing the upgrade to Armley Gyratory, 200m south west of this structure. Using this model LCC have recently prepared a business case for another maintenance scheme, simulating the failure of a structure 300m north of the Wellington River Bridge. If this structure were to fail it would result in the full closure of the LIRR in the same fashion as if the Wellington River Bridges were to close.

The Do Nothing test with the structure closed and a Do-Something with Woodhouse Tunnel open were run through TUBA (v1.10) to obtain a BCR. As a similar location, this BCR could be treated as indicative to a full assessment of this scheme.

The .OUT file attached as an appendix to this submission.

Present Value Costs (PVC)	24,445
Present Value Benefits (PVB)	2,360,992

Benefit to Cost Ratio (BCR) 96.5

To enable the assessment of the economic case, please submit the supporting information listed below to StructuresFundTAB@dft.gov.uk

- Economic Toolkit
- Any supplementary reports which support the economic case

2.3 Commercial Case

This section captures information on the commercial viability and procurement strategy for the planning and delivery of the scheme being promoted.

a) Explain the LHA capacity and experience delivering comparable schemes. (Maximum 250 words)

Where capacity is challenging for local authorities, explain how any capacity gaps may be addressed to ensure delivery of the scheme.

The scheme will be delivered by Leeds City Council's established Highways and Transportation (H&T) dedicated Structures Team supported by a number of external Framework appointed consultants.

LCC Structures team comprises 46 dedicated experienced highways structures staff as part of a wider (H&T) team with 550 technical staff. The structures team has successfully delivered numerous new and replacement bridge repair projects including the substantial repair & replacement of £31m Regents St Bridge, £10m replacement of 3 nr bridges as part of Armley Gyratory works, installation of 7 Nr new bridges as part of £140m ELOR new road scheme.

The LCC team is supported by a (H&T) framework cost and risk management consultancy who also supported on all the above projects; the team is led by Senior Consultant with over 30 years delivery experience. Permanent works design is provided by an external international infrastructure design consultancy who have worked extensively on the maintenance element of the LIRR for many years.

Buildability / Logistics / programme support is provided by Balfour Beatty ECI team.

The Project delivery team is led by an Experienced Project Engineer who successfully delivered a number of the schemes above supported by the wider team and consultants.

b) Explain the delivery plans and procurement strategy for the scheme. (Maximum 250 words).

This section should include explanation of the various stages of the scheme that are required for completion. This may include design, consents and construction processes.

The works to the structures are to be delivered as part of the overarching LIRR procurement strategy. A delivery partner (Balfour Beatty) has already been procured to assist in scheme development and manage and deliver each element of works under the LIRR strategy. The works to the structures are to be delivered as a design and build contract with novation to Balfour Beatty occurring at the detailed design stage. They are currently engaged in the outline design stages to assist with buildability advice, programming and phasing inputs, engaging supply chain for cost

forecasting and procurement of any physical investigation works required to develop the design, programme and cost.

The Delivery plan is as follows

1. Develop overall LIRR Strategy for delivery – complete
2. Establish Project Delivery Plan – complete
3. Establish deliverable workstreams and scope – complete
4. Identify potential options for each workstream - complete
5. Identify funding requirements – complete
6. Assess high level cost and programme – complete
7. Initial Risk Assessment for Strategy - complete
8. Establish key constraints
9. Develop design for Business Case (SOC level done)
10. Progress Business Case – commenced
11. Detailed Design / Phasing / Costs / Risk / Programme development
12. Approval and delivery

c) Describe the delivery risks associated to the project delivery. This should include risks which may challenge the end date for the Structures Fund.

Explain what risks have been identified and how might these be mitigated.

One of the primary risks associated with working on existing structures is related to the actual as built construction and condition of the structure. Extensive experience of working on existing structures has highlighted that “as built” information is often inaccurate and therefore any design assumptions based upon reliance on such information can be incorrect. This often leads to project delays and additional costs after works commence as discrepancies are uncovered and addressed. Issues with the actual condition of “hidden” elements cannot always be assessed even after intrusive investigation works being carried out. This risk is mitigated by early physical intrusive surveys to establish actual as built construction.

Another risk associated with working on the LIRR are the constraints associated with maintaining traffic flow at peak times given that it carries circa 86k vehicles per day. This limits the ability to close lanes / carriageways therefore adding significant restrictions on the optimal construction activities. This will add considerable programme time to the works which will need to be carefully assessed during the development process. The team have recently completed significant works on the Armley Gyratory (adjacent these structures) and have a considerable understanding of the impact of lane closures and methods of working within constrained zones and phasing the works accordingly. The risk is mitigated by close working relationship with network management to review and understand the impact of closures well in advance.

Limited working / compound areas are a risk to delivery – there are not many locations for establishing large compounds close to each work area. We have mitigated this by identifying a number of locations close to the LIRR which can be utilised for storage / cabins etc and sought to secure use of these areas for the future works. We have also looking to consider the use of mobile site / welfare cabins that can be driven onto / out of the working areas as required when needed thus limiting the extent of site set up areas.

d) Explain whether liaison with any applicable third-party organisations present a particular risk to delivery and whether those organisations have agreed to support the scheme's delivery. (Maximum 250 words)

In this section set out if the scheme requires support from other organisations, and the nature of any engagement undertaken to date.

Works to the structures over the River Aire will require permits from EA. LCC have extensive experience working with them on recently completed and current schemes. We have developed a full understanding of the permit process and their requirements, concerns and priorities.

There is no overlap with Network Rail operations despite the proximity of NR infrastructure.

National Highways are a consultee for Package A due to potential traffic diversions during the works. They fully support the LIRR strategy given the potential impact of unplanned closures on their network and the synergy with their works to the M621. They describe their works "Our scheme [Junction 1-7 improvements] will ease congestion at key locations along the M621, providing a better, safer, experience for motorists and more reliable journeys. This is great news for the local and regional economy as our scheme will support economic growth aspirations – helping people and businesses access Leeds city centre and the surrounding area". They have the same aspirations for economic growth through maintaining vital transport links into Leeds City Centre.

As the LIRR is technically classified as a motorway there are severe restrictions on the ability for utilities companies to lay services along the route. However there are areas where we may need to divert services and we have obtained initial services locations plans. Further consultation will occur and we will carry out physical investigations to identify exact locations of these limited services installations to assess if they require protection / diversion.

2.4 Financial Case

a) Provide estimated outturn costs (£million) for the scheme in the table below. The table should be completed with total costs, requested DfT investment, LHA contribution and third-party contributions. Only capital funding costs should be included in the table.

To note, the prospectus sets out that:

- schemes should be delivered by end-2029/30.
- schemes with early delivery (i.e. in 2026/27) may be prioritised.
- schemes should not be affordable from existing LA budgets.
- local contributions are required for proposed schemes.
- preference will be given to schemes with higher local contributions and/or those where there is a high percentage of local contribution.
- preference will also be given where the local contribution is:
    - not from other central government funding sources.
    - partially funded from other third-party sources.

	2026/27	2027/28	2028/29	2029/30	Total
Requested DfT investment	£3m	£6m	£12m	£7m	£28m
LA contribution (LCC)	£	£1m	£	£2m	£3m

Other contribution (WYCA)	£	£4m	£	£	£4m
Total costs	£3m	£11m	£12m	£9m	£35m

b) Outline how the LHA has sought to manage this scheme from existing budgets and why that has been unsuccessful.

Explain the local approach to managing the existing DfT contribution across its highway assets and what specific challenges have meant that this structure was not repaired earlier.

The council's highway structures are continually monitored for condition and maintenance needs. Prioritised planned maintenance and strengthening programmes are developed to maintain the assets in a safe and serviceable condition appropriate for their use together with a view to minimising whole life costs and negative environmental impacts where appropriate. The programme targets structures that pose the greatest immediate risks to the network with the remaining structures being managed either through dedicated monitoring inspections or as a part of the regular inspection regime to check their condition.

Through the management of the structures stock the service endeavours to reduce the percentage of structures in need of essential repair. However, this measure of stock health has seen a rising trend since 2009 and is currently at 39.5% (36.5% 2025/26) (https://democracy.leeds.gov.uk/ieDecisionDetails.aspx?ID=58700). This is expected to continue increasing year on year, reflecting the level of funding forcing a managed decline stock strategy. There are several factors contributing to this rise including an ageing structure stock, major schemes (with substantial risks) absorbing large percentages of the available budget, short term fixes (as opposed to complete solutions) and a short fall in and historic uncertainty around long term funding.

The current annual structures budget for all LCC structures (1500) is approximately £4.3m. This is reflected in historical annual LIRR expenditure of approximately £750k, predominantly reactive maintenance (crash damage / repairs to joints etc). This would equate to 8/9 years of all structures funding, and this is obviously impractical in all regards.

c) Describe the whole life costs anticipated without the proposed scheme. Explain how the proposed scheme mitigates costs from a whole life perspective. (Maximum 250 words)

Explain maintenance considerations for maintaining the structure and compare these to the scheme cost to demonstrate the financial benefit of delivering this scheme.

Without the scheme, LCC would continue to manage these structures through a reactive maintenance approach, undertaking cyclical repairs, inspections and localised interventions as deterioration progresses. While this defers capex, it would not remove the underlying need for the maintenance and strengthening works identified. These are required irrespective of whether Structures Fund support is secured. Delaying delivery increases whole-life costs through inflation, repeated traffic management, multiple contractor mobilisations, additional design / supervision costs, and a growing requirement for interim maintenance activities to maintain safe operation of the route.

Further concern is the wider LIRR programme, containing a significant number of structures requiring intervention before 2030. If these works are deferred, the number of interventions, temporary restrictions and risk mitigation measures required continues to increase. There is a risk

that a tipping point is reached where the volume of interventions required exceeds the network's ability to accommodate them. This increases disruption, programme complexity, delivery costs and the likelihood of operational restrictions on a route of critical strategic importance.

This scheme minimises whole-life cost by combining essential maintenance and strengthening works into a single coordinated intervention. Delivering the works together enables shared traffic management, compounds, access arrangements and contractor resources, avoiding future remobilisation and duplicate costs. It secures the benefits of the strengthening works at the earliest opportunity, reducing future disruption to road users. Consequently, the scheme represents the lowest whole-life cost solution, reduces network impacts, improves resilience and avoids the significantly greater financial and operational costs associated with delayed intervention.

d) Summarise how the cost estimate for the scheme has been developed.

Set out the basis for the estimate. For example, is it based on an estimate from similar work, developed by a quantity surveyor or a contractor quotation. *Describe the inflation assumptions used and the rationale for these.*

Due to the traffic management constraints associated with these works the primary cost driver for the works relates to the programme duration for the works. The current cost forecasts have been based on benchmarked project run rates (taken from a number of recent and current large infrastructure projects) which have been applied to a forecast construction period again benchmarked against similar highly constrained projects. Costs for surveys / design / consultants / LCC internal costs have been benchmarked against other recent and current large infrastructure projects. Optimism bias has been applied as per Greenbook guidance (66%). Inflation has been based on a 3.5% compounded annual increase based upon the high level delivery programme.

e) Explain the financial risks that have been considered and factored into the estimate and what contingency is allowed for.

Explain the key risks and their impact on the cost and programme, including how these link to the overall contingency allowed for in the estimate.

Key financial risks

1. Programme delay both for preconstruction and construction elements
2. Inflation
3. As built structures differ from records / design info
4. Scope creep
5. Site Constraints

Contingency allowances

1. Programme – we have modelled low / medium / high programme periods for each scheme and have taken the medium high duration for each scheme into the cost estimate
2. Inflation has been accounted for on a years by year compounded interest
3. As built info – this is factored into the 66% current OB allowance
4. Scope Creep – this is factored into the 66% current OB allowance
5. Site Constraints – this primarily affects programme durations as it affects the time taken to complete activities. This is factored into the medium / high period for each scheme duration.

f) Provide details of the local and other contributions, including the relevant funding sources and the certainty of whether these contributions are available. (Maximum 250 words)

Describe the various sources of funding and their availability.

In addition to the £28m sought from the Structures Fund, LCC will contribute £3m from their own capital programme (funded through borrowing). West Yorkshire Combined Authority will contribute £4m drawn from the TCR Fund. This has been confirmed in the attached letter of support.

2.5 Management Case

Outlines how the project will be delivered and managed effectively.

a) Select the option which best describes the current stage of the project:

- ☐ No design, benchmarked against other schemes only
- ☐ Design concept only, no supplier yet engaged
- ☒ QS estimate / early supplier engagement, stable design

b) What is the anticipated start date for construction for the scheme?

March 2028

c) What is the anticipated end date for construction for the scheme?

September 2029

d) Summarise the approach to the management of the delivery of the scheme. This should be from the current point of development to completion.

This should include the management of resources, including the supply chain, to ensure delivery and an explanation of any evidence that provides certainty of delivery within the timescale.

The project is part of the wider LIRR Programme and is managed by the LIRR Delivery team. The LIRR steering group has been established to take responsibility for the delivery of the overall Programme headed up by LCC Structures Lead and assisted by programme, cost and risk managers (LCC's external cost and risk consultants), programme design lead (LCC framework design consultant) and the programme lead from the contractor delivery partner (Balfour Beatty). Through the concept and outline design stages the delivery parter provides programme, buildability, and cost support to the team. At detailed design stage they (Balfour Beatty) will become responsible for the design development with the scheme being delivered as a design and build contract. The project will be managed day to day by a delivery leadership team from LCC structures, Cost and Project Manager and the Contractor lead. Design and approval progress will be carefully monitored throughout the design process to ensure construction start dates are maintained. The LCC and Balfour Beatty teams will work closely to joint procure all necessary supply chain partners at the most competitive / best value point. The project team will utilise well established processes to ensure the construction is delivered within the cost forecast. Considerable attention will be given to the detailed planning / programming of the works as this is the primary risk in terms of cost escalation. We will engage specialist contractors early as possible to ensure the programme is robust and deliverable.

e) Explain the key delivery risks and challenges and how the local authority intends to address them. Answers should also explain any financial risks and how any cost overruns will be addressed by the local authority. (Maximum 250 words)

Explain how key financial risks are being managed and mitigated. Explain how other risks are being managed (e.g. are there any points of complexity or requirements regarding planning or land ownership?).

Planning is not required for the project. Land ownership Is entirely within the LCC ownership. As identified above, it has been established from a series of collaborative workshops that the primary delivery and financial risk to the project relates to programme delay and the cost of delays, both in commencing works and then construction programme. At this stage we are applying a project risk / optimism bias allowance of 66% in accordance with Green Book Guidance. As the design develops and critically the programme for the works develops, we will review the risk profile through a series of collaborative risk workshops. We will work closely with network management colleagues and City Centre Management to fully understand the constraints impacting the wors and therefore the programme implications. Early consultations have commenced with any potentially impacted 3rd party stakeholders.

f) Describe the key project controls that will be employed by the local authority to ensure that schemes are delivered on time and in budget. (Maximum 250 words)

Provide details of the methods that the authority uses to ensure timely delivery within budget.

LCC adopts a PRINCE2 approach to project management, operating under the Managing Successful Programmes philosophy to ensure successful scheme delivery. Within LCC, major transport schemes are delivered via three-tier governance arrangements, with a dedicated Project Team reporting to the Scheme Project Board and the LCC Highways and Transportation (H&T) Board. Leeds City Council (LCC) Highways and Transportation and particularly the Bridges and Structures team has a strong track record in delivering complex highway and structural infrastructure schemes, supported by established governance, project management and assurance frameworks. LCC has successfully delivered and continues to deliver major projects across the city, including strategic highway improvements, bridge refurbishment and replacement schemes, and large-scale transport infrastructure such as the LIRR and orbital routes. Delivery is underpinned by a structured governance approach incorporating clear accountability through a Project Board, defined roles (including Senior Responsible Owner, Project Manager and supply chain partners), and robust reporting and assurance processes. This ensures effective decision-making, risk management and programme control across all stages of delivery. Collaborative delivery models—such as framework-based contracts and early contractor involvement—are routinely used to integrate contractor expertise into design development, improve buildability and manage risk. Where capacity constraints arise, LCC supplements in-house expertise through established framework partners, ensuring access to specialist design, temporary works and construction capability. This blended delivery model provides resilience and ensures schemes can be delivered safely, efficiently and within required timescales.

g) Set out if the scheme requires permission from other bodies, and how this permission can be obtained to ensure delivery.

Provide details of the permission required, the likely timescale for obtaining permission and any potential barriers to obtaining that permission.

The works require formal permission from two other bodies. Firstly, the TAA (Technical Approval Authority) whilst this technically falls within LCC as an organisation it is an independent role carried out by LCC resources. This process is well understood as it is required on all Highways structures projects. The programme will be developed to ensure adequate periods for the approval process. LIRR Programme staff will liaise with TAA resources to ensure programme requirements are advised in advance and all necessary resources can be planned in advance to achieve the required programme. As outlined elsewhere the works above River Aire will require the Environment Agency to be engaged on the Wellington River Bridges. LCC

has experience of consulting and obtaining permits from them recently (included two challenging sensitive schemes) sand fully understands the processes and priorities and timescales necessary for obtaining such permissions.

j) If applicable, explain how the scheme development has included consideration of climate adaptation and ensures the future resilience of the highway network (Maximum 250 words).

Describe how climate related risks (e.g., flooding, heat, extreme weather) have been assessed and incorporated into design measures to improve the long-term resilience of the highway network. This may include evidence of risk assessments, adaptive design features, and how the scheme will maintain network performance under future climate conditions.

Whilst the majority of the scope of the works relates to the replacement / repair of the structures on a like for like basis there are elements of the scheme where the project team are looking at building in climate resilience into the proposals. These include consideration of improving drainage provision / attenuation to accommodate increased water volumes. Options under consideration in the early design stages are water gardens, “green” central reservations, additional storm water attenuation storage, green walls, increasing drainage sixes within structures, permeable surfacing. Other elements will include improved / variable signage to assist in reducing congestion.

h) Explain the considerations have been made or will be developed to account for the management of carbon for the development of the scheme.

This may include development of a carbon management plan dealing with whole life carbon (e.g. using low carbon construction measures to deliver the scheme or reducing emissions though reducing vehicle miles).

The wider LIRR strategy includes the development of a carbon management plan / strategy at the earliest stage to maximise the ability to reduce carbon where possible through construction and also negate wider emissions through vehicle miles. A key driver of the entire strategy is to ensure that the LIRR remains fully open and therefore reduces carbon emissions from the significant congestion associated with any restrictions on the network along the LIRR. Carbon will be reduced by locating the compound / site hub on the LIRR using low carbon accommodation which will be run from permanent supplies rather than generators. Charging points will be provided for EV’s. The site hub is accessible by pedestrian and cycle users and within walkable distance of train / bus services. Traffic management will be carefully considered to reduce impact during the works as far as possible.

i) What statutory undertakers affect the proposed scheme? Has any engagement been undertaken and how has this been accounted for within the delivery approach?

Set out the relevant statutory undertakers, the impacts they may have on the programme – including planning – and how this part of the programme will be managed. If applicable, describe how deterioration of the structure has or may impact utilities services and the extent of this disruption.

As the LIRR has motorway status the extent of statutory services is considerably restricted along the LIRR. There are some minor services which generally feed installations along the LIRR and these will be diverted / removed / replaced as required during the works. The process of identifying exactly what services are present and are affected has commenced at outline design stage.

Part 3 – Governance and Declarations

3.1 Equality Analysis

a) Has analysis of the equality impacts of the scheme been undertaken by the LHA in line with the Public Sector Equality Duty? Select below:

☒ Yes

☐ No

b) Explain how the equality impacts of the scheme have been considered or will be considered. Identify the relevant affected groups with protected characteristics, and any planned measures to mitigate these impacts. (Maximum 250 words)

Leeds City Council maintains an Equality Impact Appraisal proforma for the assessment of proposed schemes.

The EIA for the proposed scheme did not identify any negatively affected and protected characteristics or affected groups.

Due to the maintenance nature of the works – where the works are generally replacing / repairing structures on a like for like basis means that the assessment concluded that affected groups / protected characteristics were not adversely affected in comparison with other groups.

3.2 Public Sector Transparency

When LHAs submit proposals for funding to DfT, as part of the Government's commitment to greater openness in the public sector under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004, they must also publish a version excluding any commercially sensitive information on their own website within two working days of submitting the final proposal to DfT.

a) Please specify the weblink where this proposal will be published.

https://leedscitycentretransport.commonplace.is/en-GB/proposals/v3/leeds-inner-ring-road?step=step1

3.3 Declarations

Senior Responsible Owner declaration

As Senior Responsible Owner for [LIRR Structures Package A], I hereby submit this request for approval to DfT on behalf of [Leeds City Council] and confirm that I have the necessary authority to do so.

I confirm that [Leeds City Council] will have all the necessary statutory powers and other relevant consents in place to ensure the planned timescales in this proposal can be realised.

a) Name: Gary Bartlett
b) Signed: G J Bartlett
c) Date: 03/08/2026
d) Email: gary.bartlett@leeds.gov.uk

Deputy Section 151 Officer declaration

As Deputy Section 151 Officer for [Leeds City Council], I declare that the scheme cost estimates quoted in this proposal are accurate to the best of my knowledge and that [Leeds City Council]:

- has allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution.
- accepts responsibility for meeting any costs over and above the DfT contribution requested, including potential cost overruns and the underwriting of any funding contributions expected from third parties.
- accepts responsibility for meeting any ongoing revenue requirements in relation to the scheme.
- accepts that no further increase in DfT funding will be considered beyond the maximum contribution requested and that no DfT funding will be provided after 2029/30.
- confirms that the authority has the necessary governance and assurance arrangements in place and that all legal and other statutory obligations and consents will be adhered to.

e) Name: RICHARD ELLIS
f) Signed: Richard Ellis
g) Date: 3rd August 2026
h) Email: richard.ellis@leeds.gov.uk