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: Kingston Upon Hull City Council

b) Scheme / structure name and LHA bridges number: Hessle Road Flyover

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

Easting: 506800

Northing: 427510

d) Name of Project Manager: Joel Bridger

e) Email address: joel.bridger@hullcc.gov.uk

f) Phone number: 07514560135

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.*

Constructed in 1962, the structure consists of single lane 2-way traffic, separated by a central hard verge, with a cycle track and a footpath running along each side, carrying the A1166 road, and is a diversion route for the nearby A63. The bridge crosses a local unclassified road (Wiltshire Road) on the West approach, providing access to an industrial estate. The rail span crosses the Hull and Barnsley Line.

The original structure is a multi-span reinforced concrete portal framed structure supporting a reinforced concrete deck slab, constructed with 14 no. bays at 9.144 m (30’-0”) and 2 no. railway spans at 18.288 m (60’-0”), supported by intermediate portal frames.

Assessment in 1997 established that the approach bays had a carrying capacity of 7.5 tonnes + Group 2 fire engines. Strengthening with CSBS arches (14 no.) along with reinforced concrete ring beams to the approach span bays, supported by existing pile caps, with granular backfill between the arch and deck slab, reinstated 40 tonnes normal traffic loading and 37.5 HB units.

In 2025, investigations confirmed that backfill settlement had occurred resulting in voids between the CSBS arches and deck slab, therefore traffic loads were no longer effectively transferred to the supporting CSBS arches beneath, effectively reverting the structure back to the conditions that dictated a capacity of 7.5 tonnes + Group 2 fire engines.

2026’s feasibility study concluded that a scheme, estimated to cost £6.1M is now required to backfill all voids by drilling holes through deck and injecting grout.

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.*

The proposed scheme restores the support (fills the void) between the deck and CSBS arches by drilling an array of small-diameter (25–30 mm) holes through the existing reinforced concrete deck slab and injecting a suitable flowable cementitious grout, epoxy resin, or polymer-modified mortar to fill the voids. The grouting is undertaken from the carriageway surface level, enabling phased working under lane closures and a contraflow.

The objective is to fill the void beneath the deck soffit and above the CSBS arches to reinstate the load transfer strategy originally envisaged when the CSBS arches were constructed. Injection of the flowable material would be conducted in controlled stages to prevent overstressing the deck or over-pressurising the void space. After curing, the deck waterproofing, surfacing and expansion / contraction joints would be reinstated, all having been removed prior to the drilling works.

This method offers a balance between practicality and improved structural performance, as well as maintaining two-way traffic flow during most of the works.

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

No, although the rail span of the structure passes over Network Rail land. The rail span does not form part of this scheme as it has already been strengthened in an earlier, separate project.

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

Yes, this structure forms a critical part of the diversion route for the A63.

### 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..*

1992's assessment of the original framed structure by MRM Partnership found that the overall load carrying capacity was dictated by the approach span decks which were limited to 3 tonnes + Group 2 fire engines. This was further developed in 1996 by Hull City Council's technical services department which found some improvement in the assessment loading to 7.5 tonnes + Group 2 fire engines. Considering this assessment, the structure was strengthened using CSBS arches for HA loading from BD 12/95 and 37.5 HB units.

On completion of the strengthening works, by Mason Clark Associates assessed the flyover with a conservative approach, by comparing the results of load effects of 40 units of HB loading with the specified HA loading which the CSBS arches were designed for originally. The results of the assessment indicated that the CSBS arches can safely carry up to 40 units of HB loading and therefore on the completion of the phase 5 (final stage) strengthening works the whole bridge can be rated at 37.5 units of HB load.

Note.2009's assessment was conducted before it was known that the strengthening works were ineffective due to the gap between the original deck soffit and granular backfill.

In 2023, Hull City Council conducted investigations to a similar structure, the Marfleet Lane Flyover. The investigation identified that settlement had occurred within the backfill surrounding the CSBS arches and deck slab, resulting in traffic loads not being transferred to the supporting CSBS arches beneath. ** Repeated for Hessle – make clear.

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.*

Following confirmation that the CSBS arch strengthening works are currently ineffectual due to settlement of the granular fill between the arch and deck slabs, the structure is currently limited, informally, to HA loading only (that is to say that the Council prohibits any AILs over 40T from crossing the bridge by rejecting Abnormal Load notifications from hauliers).

An urgent feasibility study, backed by intrusive investigations and assessments has now been completed to identify the most advantageous means of restoring the connectivity and transfer of loads between the original structure and the CSBS arches to reinstate the capability to carry 37.5 units of HB load. Restoration of HB loading is felt to be particularly important on the basis that the bridge carries a trunk road, is a key public transport link, forms a key part of the formal diversion route for the A63, feeds a busy industrial estate, and is an access route to the Port of Hull etc.

Although AILs with weights >40T are prohibited from crossing the bridge, it is recognised that a risk of unpermitted AILs accessing and overloading the bridge exists.

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.*

The Council are at a progressed stage of developing the urgent works required to resolve the backfill settlement issues preventing connectivity, and transfer of loads between the original structure and CSBS arches. The works would reinstate the designed, strengthened HB capacity of 37.5 Units. If the works cannot be undertaken then the bridge would need to be restricted to 7.5 tonnes + Group 2 fire engines, as per the outcome of the 1996 structural assessments, and on the basis that the strengthening solution that followed is not functional. The structure is currently being managed in line with the requirements of CS 470 - Management of sub-standard highway structures, and as laid out in the standard the Council will be obliged to implement to a restriction within timescales prescribed within the standard.

The Council's experience in implementing restrictions of 7.5T or similar, is that they are difficult, if not impossible to enforce, therefore should a 7.5T weight restriction need to be implemented it would result in the closure of the flyover.

Restriction, or closure of the flyover would cause severe and intolerable impacts to residents, businesses, given the strategic importance of the flyover. For instance, although there are options available to divert motorists and public transport (most notably via Hawthorn Avenue, Anlaby Road, North Road), the surrounding roads are already known to be congested during peak times of usage, therefore diversion is not considered acceptable in terms of journey times for diverted traffic, nor the additional pressures imposed on the alternative routes.

The flyover forms a critical part of the diversion route for the A63 and the consequences of a closure or restriction as this location (Hessle Road Flyover) is thought to be a significant issue to the management of this major road (the A63). There is already a defacto restriction to this diversion route, insofar as it currently precludes HB loading.

The flyover is located within and serves a busy industrial estate (Wiltshire Road) and closure, or restriction would also cause a loss of connectivity to businesses. Similarly as a key public transport route, diversion or closure would cause severe disruption to residents.

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.*

Highway inspectors cyclically monitor the flyover's carriageway to identify any depressions, cracks, rutting or any other defects that may indicate underlying structural problems. Concurrently, Bridge Engineers are continuing to conduct structural inspections, investigations, analysis, and assessments necessary to development a scheme to restore the functionality of the previous CSBS arch strengthening solution.

As outlined earlier within this submission, no AIL's with weight >40T are permitted.

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.*

Yes, technically, the flyover is currently functioning, structurally, in an unstrengthened state, as per the 1996 assessment that found that the approach deck slabs were weak (on the basis that the loads are not being transferred through the CSBS arches). If a scheme cannot be realised to restore the functionality of the previously constructed CSBS arch strengthening solution, then a formal weight restriction, would be required. As described above a closure is more likely than weight restriction. The outcome of this potential to close would be dependent upon the assessment of the levels of degradation in the condition of the original structure, since 1997 when it was last observed and assessed.

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:* *61.55*

*BCI Ave:* 28.08

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.*

The most recent Principal Inspection (PI) conducted at the Hessle Road Flyover in November 2024 resulted in a BCI Average classified as "Fair" (65.52), and BCI Critical Average classified as "Poor" (50.32). (See Appendix F- PI with CSBS Functioning)

The PI identified the parapet beams, drainage (substructure and superstructure) and waterproofing as significant elements of importance ranging from very high to medium, with extents/severities >3B, that negatively contributed to the BCI scores.

These are notable defects that require remediation, however when considered in isolation or collectively they are not the fundamental cause of concern that has prompted the need for urgent intervention.

Although the last PI was valid and compliant with the requirements of CS 450 "Inspection of highway structures", it is important to note that it was not within its remit to incorporate the intrusive, close inspections and investigations, that included sampling and testing, that were undertaken later.

Targeted inspections and investigations were instigated at Hessle Road Flyovers during 2025, in response to the identification of similar backfill settlement issues at the Marfleet Lane Flyover,

Hull, where the same CSBS arch strengthening solution had been applied and major reconstruction works were required. The inspections identified voids between the fill, CSBS arches and approach deck slabs due to poor compaction, leaching and inherent design faults that have all combined to result in settlement of the backfill material, removing load transfer between the original structure and the CSBS arches, thereupon eliminating any of the support and strengthening offered by the designed solution. It is this situation that has dictated the need for the urgent grout injection scheme to eliminate all voids and reinstate connectivity between the CSBS arches and the original deck slabs.

A new “special” principle inspection that includes the outcomes of investigations and inspections linked to the assessment of the structure, and the development of the scheme to improve it has been completed. This better represents the condition of the structure based on the fact that the primary deck element is now the original deck slab again, due to the lost of connection with the CSBS arch.

The most special inspection resulted in a BCI Average classified as “Poor” (61.55), and BCI Critical Average classified as “Very Poor” (28.08).These are the more realsitic figures that should be considered to represent the current condition of the structure. (See Appendix G - Special PI without CSBS Functioning)

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

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## 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 proposal would fundamentally support the UK Government's economic growth mission by securing the reliability, resilience, and efficiency of a key transport route on the city's strategic road network.

The flyover carries significant traffic on a busy A-road, if urgent works cannot be undertaken, weight restrictions or closure will be necessary, limiting access for HGV's, increase journey times and transport costs for local businesses. Diversion routes would result in further pressure on an already busy local road network, creating further congestion, reducing productivity, and introducing uncertainty for freight operators, motorists, and public transport users.

Investment in this proposal would secure unrestricted movement for Hull's communities, industrial areas, city centre, and its wider regional transport links. The flyover is located on the A1166 which supports the movement of goods to and from the Port of Hull which is a major international gateway for trade on the Humber Estuary, for associated logistics, manufacturing, and renewable energy sectors.

The scheme would also generate economic benefits through construction employment, supply chain activity, and local procurement opportunities. By extending the bridge's service life, the investment would reduce the likelihood of more costly emergency interventions and major future reconstruction.

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.*

This proposal supports UK Government's other policy objectives by safeguarding a strategically important transport link, avoiding closure, weight restrictions, diversion routes and disruption to freight operators, motorists, and public transport users.

Restoring capacity to support HA and HB loading would avoid increases in journey times, fuel consumption and vehicle operating costs, contributing towards the governments objectives to raise living standards, lower costs for working people, stimulating economic growth, productivity, and supply chain efficiency. The structure is in a key employment area and is a strategic route to the Port of Hull, contributing towards efforts to enhance regional and national economic performance.

Reliable highway infrastructure supports the delivery of new housing and major infrastructure schemes. The works would ensure that construction materials, equipment, and the workforce can travel efficiently across the city, supporting the Government's initiatives to expand housebuilding and infrastructure delivery.

Eliminating restrictions or diversions would avoid congestion and prolonged journey times, supporting efforts to improve accessibility to healthcare facilities, for patients, staff, and emergency services (the adjacent ambulance station in particular), contributing to reductions in NHS waiting lists. Policing, community, local authority, and other public services would be able to reach residents more efficiently.

Strengthening the existing flyover, opposed to allowing continued deterioration and earlier than necessary replacement, supports environmental objectives by reducing emissions during reconstruction and extending the life of existing infrastructure. Retention/improvement of the flyover presents a lower-carbon solution than major reconstruction, supporting the transition to a cleaner, more efficient transport network and construction industry.

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.*

Following detailed inspections, with support from external Bridge Engineers, a major five-year programme, approved by cabinet on Monday 23rd June 2025 has been launched that aims to significantly improve fifteen of the city's bridges at an estimated cost of £42M.

Hessle Road Flyover is a priority scheme identified within this programme, due its structural risk, and the anticipated impact of diversion routes and potential closure, which would be intolerably disruptive to residents and businesses alike.

Improvement of the structure would support local businesses and facilitate economic growth and development in the city and the wider region by securing the continued availability of the key strategic route on the Key Road Network (KRN).

The Council has historically experienced lack of funding from the DfT. This shortfall has been exacerbated by the city owning a disproportionate number of complex moving bridges, due to its division by the River Hull, and the requirement for multiple crossing points to unite the East and West of the city. The DfT funding calculations may not adequately account for the complexity of moving bridge structures, or the greater cost of maintaining them, and scale of disruption if they become unavailable.

On the 17th of June 2025, the Leader of the Council wrote to the Prime Minister, Chancellor of the Exchequer and Secretary of State, with reference to the announcement of the Structures Fund, highlighting under-investment leading to deterioration of the city's vital infrastructure, unforeseen emergency repair closures and significant disruption to residents and businesses.

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.*

Detailed consultation with the Council's Permit Team has been undertaken with regards to sequencing of works to avoid full closure. A traffic managed contraflow system has been successfully implemented in the past therefore confidence in the project is high, from a network management perspective.

The scheme is already identified as a high-risk scheme in longer bridges maintenance and repair plan approved by Cabinet.

The rail span crosses the Hull and Barnsley Line owned and operated by Network Rail who are consulted during assessment and investigation activities. This liaison is ongoing; however, the proposed works are not thought to be of concern to Network Rail because they do not involve the rail spans that have already been strengthened satisfactorily previously.

It has been recently proven during the major A63 works that National Highway's rely on A1166 and the flyover as a diversion route to enable closures on the A63.

There is an electrical substation located beneath one of the northeast arches. The Utility service provider is being consulted with as part of scheme development as to risks and planning of works.

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.*

A long term, historic funding shortfall to undertake a suitable volume works, principal inspections and structural assessments contributed to the deterioration of the condition of the Council's bridges. The Council, recognising this trend, implemented a programme of detailed inspections and assessments to better understand the volume, type and level of bridge related risks, and the priority and cost of essential works required. This process resulted in a 5+ years, long-term bridge maintenance and repair programme, estimated to cost £42M (currently self-funded), that was approved by Cabinet on the 23rd of June 2025.

In January 2026, the Council awarded Civil Engineering Consultancy, Mason Clark Associates (MCA) a £2M NEC4 Professional Services Contract, for its bridge specialist, Chartered Civil Engineers, to assist in the development of the long-term maintenance and repair programme. The scope, priority and scheduling of the programme is educated by the outcomes of principal inspections undertaken in accordance with CS450 Inspection of Highway Structures, CS454 Assessment of Highway Bridges and Structures, and any investigations and tests required.

Consultation is then undertaken with the Council's internal partners such as the Permit/Network Management Team, Legal Services, Procurement et al. Regulatory and external stakeholders are also consulted to identify their scheme specific requirements and likely lead times (e.g. EA, MMO, Historic England, local businesses, residents etc.).

Scoping/feasibility/optioneering are developed by MCA in line with the RIBA Plan of works (as are the later stages). Cost estimates are calculated in accordance with RIC NRM, and the principles of the Green Book.

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.*

The scheme is proposed primarily due to the elevated structural risk that exists, after confirmation that the load transfer between the original structure and CSBS arches has been lost.

Restriction or closure of the flyover would be the most impactful of all schemes in the Council's long-term bridges maintenance and repair programme, with severe social and economic impacts, and wide-ranging disruption anticipated, if its functionality cannot be maintained, particularly as:

- The flyover carrying a busy A road, and key transport route on the city's strategic road network
- Forms part of the A63's diversion route
- Serves an industrial estate
- Is an access route to the Port of Hull
- No tolerable diversion route exists (congested route / lengthy journey times)
- Severe restriction/diversion route impact demonstrable by traffic data etc.
- Is an important bus and cycle route.

The Council has a high level of confidence in this project being deliverable by 31st of March 2030 because:

- Although the scheme is large, in engineering terms is it not complex.
- Mature structural and design information exists
- A detailed and realistic programme exists, confirming that the project can be delivered in time.
- Approval to undertake the works has been granted
- A Civil Engineering Consultant has already been commissioned to provide the end-to-end services required to plan, design, contract/project manage, and supervise the scheme.
- A reliable cost estimate has already been produced.
- Based on current projections, the construction phase can be accommodated on the road network.

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 the scheme cannot be funded/implemented and the transfer of loads to the CSBC arches reinstated then restriction, and more likely closure, will be required. As outlined within this submission, this would in turn result in serve disruption to:

- Accessibility of residents and communities
- Productivity/viability of local businesses
- Regional transport links
- Assess to freight and the Port of Hull
- Immediately neighbouring industrial estates
- Local employment
- The availability of the A63 diversion route, and ability to close it for maintenance works and or developments.
- Access to the adjacent ambulance station.
- An arterial public transport route (effectively extinguishing it).
- Unsustainable pressure on the surrounding road network (in terms of journey times and wear due to increased traffic).
- Delays to journey times and emergency service response times.
- Reputational damage

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 scheme would eliminate the possibility of community severance for all transport modes by securing the capability of the structure (retuning back to 37.5 units of HB load). Restoration of HB loading is felt to be particularly important on the basis that the bridge carries a trunk road, is a key public transport link, forms a key part of the formal diversion route for the A63, feeds a busy industrial estate, and is an access route to the Port of Hull etc.

As outlined within this submission, the diversion route for HA vehicles, via the already congested Hawthorn Avenue, A1011 and North Road would significantly disrupt residents from otherwise straightforward and routine journeys. Increasing the existing travel journey from 0.03km and 1 minute in a vehicle, to 2.9km and 16 minutes in a vehicle. Similarly, if the flyover was to be closed to pedestrians too, the journey would increase from 1 minute on foot, to 40 mins.

- Delivery of the scheme will mitigate against impact on connecting local people to:
- Facilities - Leisure facilities, shopping amenities and public transport etc.
- Services - Ambulance centre on the southwest side of the approach
- Employment - Wiltshire and Freightliner Road Industrial Estates and wider Hessle Road/West Hull industrial lands
- Education - Pupils from school catchments east and west of the Flyover rely on the flyover to access schools on both sides of it
- Local communities - diversion route would bisect neighbouring Hessle Road and Gypsyville communities.

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.*

Hull is situated on the north bank of the Humber Estuary and is Bisected by the River Hull. The main transport routes are radial from the centre with cross flow causing disproportionate delay and disruption. This causes reliance on a limited number of strategic transport routes to maintain connectivity between communities, employment areas, and key services. Hessle Road Flyover forms an important part of this network.

Any future restriction or closure of the flyover would create community severance by reducing connectivity between residential areas, employment locations and local services. Motorised traffic would be required to divert onto alternative routes, increasing journey times, congestion and vehicle operating costs. The impacts would be most significant for cars, freight operators and commercial traffic due to the high volumes using the route.

The impacts on non-motorised users would differ. Pedestrians and cyclists may need to use alternative local routes or crossings, potentially increasing travel distances and reducing the attractiveness of active travel. This could affect access to employment, education and community facilities.

Public transport impacts would be on routes 1 and 57 that would require diversion if access was restricted, affecting journey times and service reliability.

The scheme will maintain connectivity for all transport modes, minimise severance impacts and preserve access to key destinations across the city.

In normal use this Bridge is an important Sustrans National cycle Route (National Cycle Network - Route 65 Ferry Terminal to Hessle) and forms part of the Trans Pennine Trial.

### 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 economic benefits of the scheme arise primarily from maintaining the operational integrity, safety and resilience of Hessle Road Flyover, a key transport link within Hull's highway network.

The scheme is expected to deliver benefits through:

- Avoiding future restrictions, weight limits or potential closure resulting from deterioration of the structure.
- Reducing delays and congestion that would occur if traffic was diverted onto alternative routes. This specifically refers to Light and heavy goods
- Maintaining journey time reliability for commuters, businesses, freight operators and public transport users.
- Reducing vehicle operating costs associated with longer diversion routes and increased congestion.
- Supporting local economic activity by maintaining access to employment areas, industrial estates, businesses and services.
- Preserving network resilience by maintaining an important strategic route within the city.
- Maintaining safe and efficient movement of people and goods.
- Reducing environmental impacts associated with congestion and diversionary traffic, including fuel consumption and emissions.

By carrying out the repair and strengthening works, the scheme protects a critical infrastructure asset and ensures that residents, businesses, and visitors continue to benefit from a reliable transport connection. The scheme therefore supports both the local economy and wider connectivity while avoiding the significant costs and disruption that could arise from further structural deterioration.

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) | -2,680,718 |
| Present Value Benefits (PVB) | 1,570,353 |
| Benefit to Cost Ratio (BCR) | -0.6 |

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.*

The Present Value Cost estimate is based on the forecast costs associated with delivering the proposed repair and strengthening works.

The cost estimate includes allowances for:

- Design and project development.
- Site investigations, Ground Investigation, ecology investigations and surveys.
- Construction and strengthening activities.
- Traffic management requirements.
- Project management and supervision.
- Contingency and risk allowances.

The costs have been developed using the best available information at the current stage of scheme development and reflect the known scope of works identified through structural inspections and investigation activities.

An optimism bias allowance has been applied to reflect the residual uncertainty that remains at the current stage of project development. The level adopted is considered appropriate given the maturity of the scheme and the extent of investigation work completed to date. These may include unforeseen structural defects, access constraints, utility issues, construction sequencing requirements, and market-related cost pressures.

All costs have been converted into 2025 prices and included within the Economic Toolkit appraisal to calculate the Present Value Cost of the scheme. A BCIS Forecast has been made to 2027.

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).*

Route length - In accordance with data from bridgestation and Google maps route.

Appraisal period - based on the calculated life span left on the CSBS arches (Refer to the assessment report on Appendix A of the Feasibility report – section 9.4.1), expected to be 81 years. Therefore set for default of 60 years.

Traffic data flow - In accordance with the data provided in documents in Appendix C and detail calculations provided in Appendix 3 of supporting document. Note that this value does not include motorcyles or pedal cycles vehicles.

Infrastructure carbon emissions

As per calculated in Appendix 3 of supporting information documents.

Congestion band

In accordance with TAG Unit A5.4 document Appendix A – Hull is considered an area type 6 – Urban Big (table A2); the suggested average capacity for an A road on area type 6 is 1100 CPU (table A5); as per calculations on the traffic data (refer to Appendix 3, tab 'traffic flow details') – the average PCU per lane km per hour would be 468. Therefore, the figure v/c would be around 0.43 – giving a congestion band of 2.

Diversion route

In the absence of more detailed traffic modelling, the diversion route lengths and journey times were taken as per diverted route on attached drawing RW-SB-HESSLE-P1 and times taken as per Google Maps route.

Diversion route/restriction. The scheme is to be carried out with a contraflow and lane closure in place. However, it is expected that 2 weeks of night road closures will be required for resurfacing, joints replacement and traffic management changes.

For further details, refer to Appendix E, supporting information document.

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.*

Economic

The City of Kingston upon Hulls importance to the National Economy was set out in the award of Freeport. It is central to the UK's transition to cleaner energy with over 2 billion pledged investment. The hub of this development is to the East of the City with the connection to the region and the rest of the country in the west. The this Bridge acts as the diversion route for the A63

Environmental

The diversionary Route would add 17 miles to and from East Hull:

For one lorry one way this would add in accordance with ISO 14083:2023

- $CO_2e$ – 46.82 Kg OPS
- $CO_2e$ – 17.71 Kg ENE
- $CO_2e$ – 64.53 Kg TOT

In normal use this Bridge is an important Sustrans National cycle Route (National Cycle Network - Route 65 Ferry Terminal to Hessle) and forms part of the Trans Pennine Trial

Social

We are very aware in Hull of the impact of one bridge closure on a major route has in the flow of traffic in the city.

By choosing an option that enable limited access to the public whilst the works are in progress allow us to provide support for local businesses and businesses benefit when customers, employees, and deliveries can access the area without major disruption caused by bridge deterioration or closure. Keeping the route open and dependable reduces stress and inconvenience for residents who rely on it for everyday travel

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).*

Should funding for the strengthening scheme for the flyover not be available, vehicular access over the structure would need to be restricted. The current assessed capacity of the structure is 18t which restricts the passage of HGV's. In practice, restricting anything over 18t whilst allowing anything below is very difficult to implement and therefore it is considered that a full closure to all traffic would be required. Alternatively, additional investigations could be undertaken to better understand the existing condition of the original slab and columns. However, this introduces several significant operational, technical, and strategic challenges. The current structural arrangement benefits from the presence of fill material beneath the deck slab, which would limit the distance any localised failure could fall. In contrast, undertaking intrusive investigations would require removal of this fill material, a slow and costly process that would expose the underlying structure and increase the potential consequences of any future localised deck failure by creating a substantially greater drop height.

A full closure would have a significant impact on network resilience. The flyover currently provides an important route across Hull and serves as a diversion route for the adjacent A63, which forms part of the SRN. Alternative diversion routes are lengthy and would extend into neighbouring authorities, increasing journey times, congestion, and economic impacts. Ongoing management of the structure as a substandard asset would also require a programme of regular monitoring and reassessment, potentially at six-month intervals, with the risk of further restrictions being necessary should deterioration continue.

| | |
|---|---|
| Present Value Costs (PVC) | 1,569,671 |
| Present Value Benefits (PVB) | 1,483,365,450 |
| Benefit to Cost Ratio (BCR) | 945.0 |

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.*

In I997, the Marfleet Lane Flyover (dated 1931), which is a similar, simply supported, reinforced concrete structure (except single span), was assessed and found to exhibit comparable deck slab weakness as the Hessle Road Flyover. Due to its similarities, the Marfleet Lane Flyover was also strengthened with the same CSBS arch solution.

In 2021, investigations confirmed that backfill settlement had occurred resulting in voids between the CSBS arches and deck slab, therefore traffic loads were no longer effectively transferred to the supporting CSBS arch beneath.

In 2022 The Council successfully delivered a scheme to reinstate the transfer of loads to the CSBS arch by removing the original bridge superstructure (main beams and deck) and constructing road pavement directly above the arch. This alternative solution was felt to be more suitable than filling the voids between the deck and CSBS arch by injecting a suitable flowable cementitious grout, epoxy resin, or polymer-modified as the reduced width of the Marfleet Lane Flyover meant that grouting could not be undertaken from the carriageway surface level, to enable phased working under lane closures and a contraflow.

Although the scope of works for this scheme was not a like for like, much of the feasibility work undertaken directly influenced the plan of works for the Hessle Road Flyover undertaken developed by the same Principal Designers (Mason Clark Associates), and as described there are many parallels between the two structures and the uncommon issues face by the flawed execution of the existing CSBS arch strengthening solution.

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.*

a) The scheme is generally aligned to the following RIBA Plan of Work principles:

- RIBA Stage 0: Strategic Definition
- RIBA Stage 1: Preparation and Briefing
- RIBA Stage 2: Concept Design
- RIBA Stage 3: Spatial Coordination
- RIBA Stage 4: Technical Design
- RIBA Stage 5: Manufacturing and Construction
- RIBA Stage 6: Handover
- RIBA Stage 7: Use

More particularly the need, scope and form of the scheme has been developed by suitably qualified, experienced and competent chartered Bridge Engineers (Constant Mason Clark Associates), educated by the outcomes of principal inspections undertaken in accordance with CS450 Inspection of Highway Structures, CS454 Assessment of Highway Bridges and Structures, and any investigations and tests required.

Scoping and diligent feasibility/optioneering has developed by MCA which has been informed by the past experience of resolving similar issues at the Marfleet Lane Flyover. Cost estimates are calculated in accordance with RIC NRM, and the principles of the Green Book.

Consultation has been undertaken with the Council's internal partners such as the Permit/Network Management Team, Legal Services, Procurement et al. Regulatory and external stakeholders are also consulted to identify their scheme specific requirements and likely lead times

The works shall be tendered in compliance with Procurement Regulations, open tender, or via a Civil Engineering Framework that the Council has access to. It is anticipated that the contract shall be an NEC4 Engineering and Construction Option A. A robust pre-qualification questionnaire and evaluation process will ensure that only those contractors with relevant competence and experience can be considered for award of the contract.

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.*

The principal delivery risks relate to maintaining progress while working on a live highway structure, managing technical uncertainty around the void-filling operation, and ensuring that the works can be delivered without creating excessive disruption to the surrounding highway network. The preferred option involves drilling through the existing deck and injecting grout to fill voids beneath the deck soffit and above the CSBS arches, with works undertaken under lane closures and contraflow rather than a prolonged full closure. The method of introducing a contraflow was used successfully during the 2007 Mason Clark Associated led scheme to strengthen the railway spans. This method reduces disruption compared with more intrusive options, but introduces risks associated with traffic management, safe working adjacent to live traffic, and maintaining suitable access for road users throughout the works. Discussions have already been held with traffic management companies on the safe implementation of a contraflow and has been confirmed as possible for this scheme.

The main technical risks are that the exact grout volume is not known, there is potential for grout leakage into drainage ducts, joints or fissures, and the long-term performance will be sensitive to grout selection and installation quality. There is also a requirement to remove and reinstate drainage ducts, expansion/contraction joints, deck waterproofing, and surfacing, which introduces programme and interface risk. The investigations that have been undertaken to date give a good indication as to the quantity of grout required and further investigations are due into the route and condition of the drainage on site.

These risks have been mitigated through detailed investigations, discussions with Contractors and the production of a clear and detailed specification. Once the Contractor has been appointed, a detailed grouting methodology, staged injection, careful pressure control to avoid overstressing the deck or damaging the CSBS arches, and post-grout monitoring to confirm the effectiveness of the void reinstatement will be undertaken. Further mitigation will include robust traffic management planning, clearly defined permit requirements and COSHH controls for grouting.

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.*

Third-party liaison is not currently considered to present a significant delivery risk for the preferred option. Engagement has already started with Network Rail, provided that engagement continues and they are proactive in responding, this shouldn't be a risk. The preferred solution allows the works to be undertaken using lane closures and contraflow, avoiding the need for a prolonged full closure of Hessle Road Flyover. This reduces the level of external dependency when compared with more intrusive options such as deck removal or full reconstruction.

The main interface is expected to be with Hull City Council as highway authority/client, traffic management stakeholders, statutory undertakers where services or drainage are affected, and specialist contractors/suppliers involved in the grouting works. Discussions with Hull City Council's permitting team have already commenced and they have confirmed they have no significant concerns with the scheme and traffic management proposals.

Whilst the structure spans over the railway the proposals do not affect the previous strengthening works to the railway spans, nor do they affect the cantilevered footpaths or vehicle containment barriers.

### 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 | £0.00 | £2,958,666 | £1,479,333 | £0.00 | £4,438,000.00 |
| LA contribution | £0.00 | £1,268,000 | £634,000 | £0.00 | £1,902,000.00 |
| Other contribution | £ | £ | £ | £0.00 | £ |
| Total costs | £0.00 | £4,226,666 | £2,113,333 | £0.00 | £6,340,000 |

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 has committed to self-funding this scheme, alongside the other projects identified within the "long term bridge maintenance and repair programme" approved by Cabinet in June 2025. Due to the cumulative estimated cost being in the region of £42M it is not feasible for the programme of works as a body of schemes, nor some high-cost individual schemes (such as the repairs to the Hessle Road Flyover) to be funded from existing budgets.

As highlighted in section 2.1 (e) the Council has committed significant resources into principal inspections, structural assessments, investigations and feasibility processes to better understand and define a robust asset management plan. This has culminated in the long-term bridge repair and maintenance plan.

As also referenced in section 2.1 (e) the Council has, within its boundary a disproportionate number of complex moving bridges, owning to city being bisected into two approximate halves by of the River Hull and the various associated drains that require multiple crossing point.

The DfT's existing contributions have, within contemporary history at least, not been sufficient to allow the scale of works required to maintain the Council's bridge stock and prevent downward trend in BCI Av values. To that end, the Council has allocated as much capital funding as can be justified for work to invest in the maintenance of its bridges but has regularly had to borrow to self-fund large projects.

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.*

Due to the varied and substantial risks associated with this structure, the Council has no alternative but to proceed with the scheme as has been outlined in this submission, regardless of the outcome of the Structures Fund bid, therefore the whole life costs without the scheme is difficult to define. The detailed inspections, structural assessment, investigations and feasibility work that has The range of risks and feasibility conclusions have determined that the Council has no alternative but to proceed with the scheme as is proposed, regardless of this bid outcome. Consequently, the whole life costs with/without the scheme are similar, excepting the considerable borrowing costs if the Council were to self-fund the scheme (the cost of borrowing which includes interest plus principal repayment on an annuity basis at 5% for 20 years would be c£7.1m.).

Key constraints:

a) Weight restriction to 18T may not be possible, if, as predicted, further deterioration of the original structure has occurred, and assessment condition factors must be reduced, that could lead to a further reduced class of restriction.

b) Any weight restriction would effectively extinguish the A63's diversion route for essential maintenance works, and impede NH's ability to respond to incidents requiring road closures etc.

c) The flyover is located, within the PRN/KRN, and the A63's Diversion route. Adequate enforcement any class of weight restriction and overloading by a non-compliant proportion of the large numbers of OGV1 or OGV2 that the flyover currently carries is unlikely.

d) No tangible alternative options exist, e.g., the removal of ARMCO arches, concrete repair of original structure would be riskier, cost more, take longer, and likely involve the temporary restriction or closure of the flyover causing significant disruption, unacceptable diversion routes, and has therefore dismissed as a viable approach.

Please refer to Appendix A for the 2026 Feasibility Study and B for details of the whole life costs.

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.*

The Rates used within the Rough Order of Forecast Cost Options are sourced, where considered appropriate, from a combination of in-house costings (based upon Framework tender returns from Local Contractors) together with BCIS, pricing books (SPON Civil Engineering and Highway Works) regionally adjusted for the local area and check prices obtained from the market.

Specialist items have been price checked with the marketplace to ensure veracity.

An allowance for Tender Inflation at Budget stage was taken from BCIS from budget preparation 2Q26 to 4Q27 at 4.12%

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.*

Within the Rough Order of Forecast Cost Options we applied an Optimism Bias of 44%.

This is in accordance with Table 1: Recommended Adjustment Ranges for Standard Civil Engineering of the Supplementary Green Book Guidance (HM Treasury).
prepared from advice provided by Mott MacDonald (2002), Review of Large Public Procurement in the UK, Mott MacDonald (2002)

Although on the Upper Percentile for Capital Expenditure we consider it reflects the scheme. Although cores have been taken of all of the arches there is the possibility of differential settlement. The condition of the slab soffit is concealed and therefore to a large extent unknown. This figure has therefore been consolidated to include contingency.

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.*

The 30% contribution from the LHA has been allocated from Hull and East Yorkshire Combined Authority funds. There are no other local sources of funding or contribution available.

**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?

November 2027

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

May 2028

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, from principal inspection and assessment, through to feasibility and optioneering, and now scheme development, has been progressed by the same consulting Bridge Engineering Team, Mason Clark Associates (MCA). The team comprises suitability qualified, experienced and competent, chartered Bridge Engineers and Quantity Surveyors that have overseen all stages of the asset management and scheme development, in collaboration with the Councils own Bridge Engineering staff.A tender package is in development by suitably qualified, experienced and competent officers within Council's Legal and Procurement Services Department, in direct liaison with the Council's Bridge Engineering staff and MCA, who as part of the design stages have developed an NEC4 compliant Scope.The project has generally been developed in line with the principles of the RIBA plan of works/PRINCE2/ISO9001.The Council have elected to specify NEC4 Engineering and Construction Contract, Option A (priced contract with an activity schedule). This option places the risk on the Contractor to deliver the agreed Scope for the agreed price, unless the contract provides otherwise through compensation events. As the scope of works is relatively simple there are currently no significant concerns as to contract risk.The NEC4 Project Manager and Supervisor roles will be undertaken by NEC4 accredited practitioners, similarly, the Council/Client-side lead will be accredited to the same standard too. The contract will be administered through PAGABO Group's SYPRO contract management system that is designed to protect construction contracts against commercial risk, remove time consuming manual processes and streamline communication between contractor, consultant and client.

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?).*

A costed, risk register and associated budget allowance, approved by Cabinet, will be developed by suitability qualified, experienced and competent, chartered Bridge Engineers and Quantity surveyors. The high-level assessment and costed quantification of all foreseeable risks will increase the Council's preparedness and ability to meet and overcome any issues that could result in financial risk or cost overruns. The scheme as proposed, intends to infill voids beneath the deck by discretely coring holes in the deck and pumping grout. This methodology can be undertaken under a traffic managed contraflow system that maintains two-way traffic. The contraflow has been proven to work well during past works to the same structure, with little negative impact to traffic flow rates or vehicular and accessibility, with no significant impact to pedestrians or cyclists. This well used traffic management plan is approved by National Highways who reply on the continued availability of the flyover to accommodate the A63's diversion route. Network availability to undertake the works is currently at a premium within the city, therefore, provisional road space bookings have been arranged with the Council's Permit Team to secure the ability to undertake the works at the times proposed.There are no known points of complexity or other requirements regarding planning or land ownership associated with this scheme or structure.

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.*

The Council have elected to specify NEC4 Engineering and Construction Contract, Option A (priced contract with an activity schedule). This option places the risk on the Contractor to deliver the agreed Scope for the agreed price, unless the contract provides otherwise through compensation events. As the scope of works is relatively simple there are currently no significant concerns as to contract risk in terms of time or budget.The NEC4 Project Manager and Supervisor roles will be undertaken by NEC4 accredited practitioners, similarly, the Council/Client-side lead will be accredited to the same standard too. The contract will be administered through PAGABO Group's SYPRO contract management system that is designed to protect construction contracts against commercial risk, remove time consuming manual processes and streamline communication between contractor, consultant and client. As outlined in section 2.5 e), a costed, risk register and associated budget allowance, approved by Cabinet, will be developed by suitability qualified, experienced and competent, chartered Bridge Engineers and Quantity surveyors. The high-level assessment and costed quantification of all foreseeable risks will increase the Council's preparedness and ability to meet and overcome any issues that could result in financial risk or cost overruns. This extra layer of risk alalysis has been generally known to derisk the Councils civil engineering project, buy identifying and making provision for all reasonably foreseeable risks, in a proactive manner.

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 flyover's rail span crosses a railway line owned and operated by Network Rail who have been consulted during assessment and investigation activities. This liaison is ongoing; however, the proposed works are not thought to be of concern to Network Rail because they do not involve the rail spans that have already been strengthened satisfactorily in a major scheme previously.It known, and has been recently proven during the major A63 works that National Highway's rely on A1166 and the flyover as a diversion route to enable closures on the A63, however the scheme proposes to implement a traffic managed contraflow system that will maintain access to all current vehicle classes currently permitted to use the flyover, with little negative impact anticipated to traffic flows. There is an electrical substation located beneath one of the northeast arches. The Utility service provider is being consulted with as part of scheme development as to risks and planning of works. As all works are to be conducted from above, there is no interface with the utility service providers plans, nor any risk to it from the activities planned from above. Highwat Network availability to undertake the works is currently at a premium within the city, therefore, provisional road space bookings have been arranged with the Council's Permit Team to secure the ability to undertake the works at the times proposed.There are no known points of complexity or other requirements regarding planning or land ownership associated with this scheme or structure.

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.*

The proposed project will ensure that the asset will meet its design life ending in the 2080's. Over this period climate change will accelerate based on current science and current international NDC commitments. While a detailed climate risk assessment and adaptation plan for this asset has not been completed it is part of a process alongside all other highway assets within the council's approach to climate adaptation in its corporate Climate and Nature Strategy and Corporate Risk Register. As part of this proposal a quick internal review of the asset and its historic climate impacts has been undertaken as well as understanding the assets' role in cascading impacts. Most notably is the impact of the asset failing or requiring significant works requiring a road closure and diversion upon the Yorkshire Ambulance Service station at the western end of the asset. The asset is therefore critical to enabling the station to operate during extreme climate events. The council is committed to undertake a whole asset assessment utilising the Transport Infrastructure Rapid Evidence Assessment and the DfT Climate Risk Assessment Guidance for the Transport Sector alongside key work on best practice that has been undertaken by ADEPT. As part of the asset improvements in the application discussions will be held with contractors to ensure that the asset is adapted to future climate change based upon their previous experience to drive out private sector innovation and expertise as part of the contract.

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).*

Retaining the existing structure and supplementary CSBS arches will achieve substantial carbon savings by avoiding the significant embodied carbon associated with demolition and new construction. Relatively simplistic treatment of the voids with responsibly specified materials will minimise whole life carbon (WLC) while maintaining safety, durability, value for money, and network performance. WLC, emissions associated with, material production, construction, operation, maintenance, user impacts, and eventual end-of-life carbon (demolition, recycling and disposal) will be mitigated by prolonging the serviceable life of the flyover, enabling it to meet and perhaps exceed its 120-year design life.When compared to more structurally disruptive options considered during the scheme's feasibility stages (such as removal of the CSBS arches, followed by concrete repairs and strengthening of the existing structure), the intent of the proposed scheme is to "build less" is notable, with little to no structural changes, except for the backfilling with grout or a similar material, which will essentially fulfil the original strengthening design intent by restoring connectivity. Similarly, the proposed methodology means that, backfill materials aside, relatively few new carbon embodied materials will be required, and the existing structural elements of the flyover will be retained, particularly the CSBS arches that will be rendered functional again. The simplicity of the infill methodology will minimise user carbon impacts caused by traffic disruption (that has been demonstrated in this submission to be significant and widespread), by allowing a comparatively short programme for the construction phase, that can be undertaken under a contraflow system which will reduce traffic impacts.

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.*

There is an electrical substation located beneath one of the northeast arches. The Utility service provider is being consulted with as part of scheme development as to risks and planning of works. As all works are to be undertaken from above the flyover and the CSBS arches will remain undisturbed throughout the construction phase, it is not anticipated that there will by any significant challenges to overcome or onerous permission to obtain or conditions to abide.

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## 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)

A full EIA is not considered necessary for this scheme as the repair and strengthening works to Hessle Road Flyover are temporary in nature and are not expected to result in any significant or long-term adverse impacts on people with protected characteristics. While there may be some short-term disruption to the public and service users due to lane closures and temporary footway restrictions, measures will be implemented to minimise any potential impact.

At least one footway will always remain open and signed diversion routes will be provided for traffic and pedestrians where required. The works will be undertaken in accordance with the Department for Transport's Inclusive Mobility Guidance, ensuring that temporary traffic management and signage are positioned to minimise inconvenience and hazards, particularly for disabled people, including those who are blind or partially sighted, wheelchair users, mobility aid users, and parents or carers with pushchairs, prams or buggies.

Given the temporary nature of the works and the mitigation measures that will be implemented to maintain safe and inclusive access, no significant equality impacts have been identified that would require a full EIA.

### 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://www.hull.gov.uk/roads-pavements/bridges-structures/2

### 3.3 Declarations

Senior Responsible Owner declaration

As Senior Responsible Owner for [Major Projects and Infrastructure], I hereby submit this request for approval to DfT on behalf of [Kingston upon Hull City Council] and confirm that I have the necessary authority to do so.

I confirm that [Hull 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: Angela Blake

b) Signed: 

c) Date: 31/07/2026

d) Email: angela.blake@hullcc.gov.uk

Section 151 Officer declaration

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

f) Signed: 

g) Date: 31.07.2026

h) Email: tracy.parker@hullcc.gov.uk