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: Barnsley Metropolitan Borough Council

b) Scheme / structure name and LHA bridges number: 3.210 & 3.208 – Aldham Bridges Replcaement Scheme

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

Easting: 3.210: 438656 , 3.208: 438782

Northing: 3.210: 404393 , 3.208: 404307

d) Name of Project Manager: Andrew Drennan

e) Email address: andrewdrennan@barnsley.gov.uk

f) Phone number: 07976703064

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 Aldham Bridges Replacement Scheme comprises the replacement of two single-span bridge structures on the A633, which forms part of the borough's Principal Road Network and Resilient Network. The first is a highway bridge carrying the A633 over the River Dove watercourse. The second

is a former railway bridge now carrying the Trans Pennine Trail public right of way over the A633 located approximately 150m from the highway bridge.

The highway bridge was constructed in 1910 and is approximately 116 years old. It comprises 11 longitudinal steel beams with in-situ concrete jack arches spanning between the beams and supported on masonry abutments. A Principal Inspection undertaken in 2025 recorded Bridge Condition Indicator scores of BCIave 69 (fair) and BCIcrit 28 (very poor). Structural assessment identified that the edge beam has insufficient capacity and is only able to carry a 25-tonne live load within the paved verge of the structure, resulting in a significant constraint on the bridge.

The former railway bridge located approximately 150m to the south and now carrying the Trans Pennine Trail is of half-through construction. The structure comprises three main wrought iron girders with four intermediate longitudinal girders supported on solid bearings on full-height masonry abutments. A Principal Inspection undertaken in 2021 recorded BCI scores of BCIave 54.97 (poor) and BCIcrit 31 (very poor). The main girders are experiencing significant section loss particularly in the vicinity of the bearings and supports. The bridge also provides a sub-standard headroom clearance over the highway of 4.7 m (15'6").

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.

Due to the age of the highway bridge over the river, and the limited capacity of the edge beam, full replacement is considered the preferred solution. This approach will avoid the need for load restrictions on a Principal route or potential diversions, which would be extensive, while providing a durable and long-term outcome. Remedial works to the existing structure are not considered cost effective given the poor condition of the main girders and the span involved.

In addition, the vertical alignment of the highway was significantly lowered when the railway was constructed effectively creating a low spot to pass beneath the former railway bridge. This has resulted in persistent flooding issues on the highway at this low point on the carriageway and on a number of occasions has required full closure of the route. It is therefore proposed as part of the scheme to remove and replace the existing TPT bridge such that the highway alignment can be raised to relieve the flooding issue as well as replace the deteriorating structure carrying the TPT. The cost of remediation of the TPT old railway bridge is not considered effective when compared against the cost of replacement given the current condition and required works.

The proposed scheme will address the deterioration of both bridge structures by replacing them while also raising the highway alignment to eliminate the low spot and reduce flood risk.

The structures are considered as a package of works as addressing one structure and not the other would still leave a restriction or issue of some sort on the A633 at this location.

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

No

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

N/A

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..

Structures **3.210 Aldham River Bridge** and **3.208 Aldham Railway Bridge** have been subject to regular inspection in accordance with DMRB CS 450, comprising General Inspections (GI) every two years and Principal Inspections (PI) every six years. The most recent PIs for both structures identified continued deterioration of critical elements, reflected in Bridge Condition Indicator scores categorised as *Very Poor*.

Structure 3.210, which carries the A633, exhibits deterioration of both primary and secondary deck elements, including significant section loss and lamination of steel beams, together with spalling of the concrete jack arches. Given the structure's age (circa 1910), repair is unlikely to be cost-effective in achieving an adequate residual service life. Accordingly, full replacement of Structure 3.210 is recommended.

A 1999 assessment identified that the paved footway verges, supported by the edge beams, had a capacity of 25-tonne accidental wheel loading; however, it is unclear why no barriers or restrictions were implemented at that time. In light of the continued deterioration and reduced capacity identified in the 2025 PI, replacement of Structure 3.210 is now considered urgent.

Structure 3.208 spans the A633 carriageway and carries the Trans Pennine Trail, accommodating pedestrians, cyclists and equestrian users. The bridge has restricted headroom over the carriageway below and continues to deteriorate, necessitating significant intervention. However, repair works alone would not resolve the recurring flooding on the A633 with the latest closure in 2019 and before that serious flooding in 2007 caused by the constrained highway alignment beneath the structure. Therefore, full replacement is considered the most cost-effective solution, addressing its poor condition, headroom restriction, and associated flooding issues.

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.

3.210: No

3.208: 4.7m headroom (low bridge)

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.

A structural assessment of the highway bridge 3.210 undertaken in 1999 determined the bridge had a stated capacity of only 25 Tonnes Accidental Wheel Loading within the paved footpaths. Since this assessment, further section loss of the main girders has occurred and no barrier has been provided to the footpaths. As such, it is likely to have a weight restriction of 25T or less applied by the end of the 2029/2030 Financial Year.

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.

No

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.

The structure is likely to be placed under monitoring involving increased inspection frequency and special inspections.

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: 3.210: 28 , 3.208: 31

BCI Ave: 3.210: 69 , 3.208: 55

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.

2025 PI: The longitudinal main steel girders have a complete failure of protective coatings (Severity: 5 , Extent: C) which has now resulted in sginifcant section loss and lamination to the steel beams particularly at the supports and bearings (4C). There is also rivert head section loss and spalling of the jack arch sections (3B).

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.

This scheme directly supports the UK Government's economic growth mission by strengthening the resilience, capacity and reliability of a key local transport corridor. The A633 provides an important link between Barnsley, Rotherham and surrounding employment areas, including the adjacent industrial estate and major employer Billington Structures Ltd, a nationally significant steel fabricator.

Barnsley has significant deprivation and is currently ranked at 38th most deprived local authority of the 326 in England.

The existing highway bridge over the River Dove has a reduced assessed capacity (25T in the verge), creating a risk of future weight restrictions. Such restrictions would disrupt freight movements, increase journey times and divert heavy goods vehicles onto less suitable routes, adversely impacting local businesses and supply chains. Replacement of the bridge will safeguard route availability for commercial traffic, supporting productivity and business continuity.

In parallel, replacement of the former railway bridge carrying the Trans Pennine Trail will address low headroom constraints and recurrent flooding on the A633. This will improve highway reliability, reduce unplanned closures, and enhance safety. The scheme will also enhance active travel provision by improving the resilience and accessibility of the Trans Pennine Trail, encouraging sustainable travel and supporting healthier, more connected communities.

By addressing structural deficiencies, improving network performance and unlocking long-term reliability, the scheme reduces barriers to movement of goods and people. This aligns with the Government's objectives to boost regional productivity, support local industry, and invest in infrastructure that enables sustainable economic growth across communities.

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.

The scheme supports a range of wider UK Government policy objectives, including decarbonisation, safety, resilience, and regional development.

By removing the risk of weight restrictions on the A633 and addressing the low headroom constraint, the scheme will improve traffic flow and reduce congestion and diversion routes. This supports the Government's Net Zero ambitions by minimising vehicle emissions associated with inefficient routing and stop-start traffic conditions, particularly for heavy goods vehicles serving nearby industries.

The replacement of the Trans Pennine Trail (TPT) structure will enhance a key active travel corridor, supporting the Government's objectives to increase walking, cycling and equestrian use. Improved accessibility, safety and resilience of the TPT will encourage modal shift away from private vehicles, contributing to healthier lifestyles and reduced carbon emissions.

The scheme also aligns with the Government's road safety objectives by addressing known risks associated with low bridge strikes and flood-related disruptions. Improving structural condition and highway geometry will reduce accident risk and improve network reliability.

In addition, the scheme supports regional growth and "levelling up" by maintaining a critical transport link serving local communities and businesses, including a major industrial employer. Ensuring reliable access for goods and workers helps sustain economic activity and employment in the area.

Barnsley's Vision is to "build a sustainable inclusive economy which benefits all communities". This aligns with SYMCA's focus on inclusive growth, noting that the parameters of inclusive growth require a different spatial focus. Barnsley is focused on delivery against four key priorities:

- Growth – Barnsley is seeking a step change in transitioning towards good economic growth that is aligned to the wider three priorities
- Human Capital – Barnsley is continuing to deliver a "More and Better Jobs Strategy" with a focus on enabling residents to get into work, get on in work and stay in work. This also prioritises development of skills pathways in key sectors
- Zero40 – Barnsley is seeking to reduce emissions to net zero by 2040. The strategy (called Zero40) will be delivered through four, five year action plans from 2020 to 2040 which include developing a green economy both in terms of employment and business growth opportunities
- Health Inequality and Deprivation – A central element of inclusive growth is to ensure that all residents benefit from economic growth in Barnsley. This includes addressing health, skills and employability challenges within communities

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 scheme aligns with several of our key strategies and policies:

- Barnsley 2030 strategy and the 4 themes (Healthy Barnsley, Learning Barnsley, Growing Barnsley, Sustainable Barnsley)
- Barnsley Council Plan – "the place of possibilities"
- The Local Plan and Supplementary Planning Documents
- The National Planning Policy Framework
- The Barnsley Transport Strategy
- The Barnsley Sustainability Strategy

The A633 is a critical transport corridor carrying approximately 17,300 vehicles per day and serving as a key link between Barnsley and Rotherham, two of South Yorkshire's principal urban centres. At a local level, it provides essential connectivity between Barnsley and Wombwell, one of the borough's seven principal towns, supporting access to employment, education, services and retail.

The scheme addresses two significant infrastructure constraints that pose immediate risks to network reliability. The highway bridge over the River Dove has an assessed 25T capacity, creating the potential for weight restrictions on a principal route. Without intervention, this would require HGVs to divert via the A635 and A6195, adding approximately 9 miles and up to 20 minutes to journeys, increasing costs for local businesses and disrupting supply chains with negative sustainability impacts.

In addition, the low vertical alignment beneath the former railway bridge creates a flood-prone section of highway, resulting in periodic and lengthy closures during major weather events such as in 2007 and 2019 that sever connections between communities and disrupt public transport services. These issues disproportionately affect local residents and commuters, reducing accessibility and resilience.

The scheme will remove these constraints by replacing both structures, improving reliability, reducing flood risk, and maintaining unrestricted access for all vehicle types. This will directly support the nearby industrial estate and major employers such as Billington Structures Ltd, while also enabling planned housing and commercial growth along the A633 corridor.

Overall, the scheme is a clear local priority as it safeguards a vital route, supports economic activity, and improves connectivity for communities across Barnsley and Wombwell.

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.

In 2023, the Council's Strategic Transport team undertook a resident survey to gauge their views on what the public perception of what was the worst junction and worst corridor in the borough for slow journey times. The Stairfoot Roundabout and the A633/A635 corridors were the number one priority.

Taking on board the views of residents, significant improvements will need to be made on the A633/A635 corridors. The Council are seeking to deliver multi-modal journey time improvements across our Key Route Network (KRN), which are those routes which carry more than 20,000 vehicles per day and provide significant connectivity across South Yorkshire.

The A633 corridor improvements which this scheme sits within will therefore bring forward major improvements to reduce congestion, reduce the queues, improve journey times, reduce pollution and road collisions, increase walking and cycling and also improve public transport links.

The South Yorkshire Combined Authority has been consulted, is supportive of the proposals, and has committed funding towards their development. Engagement has also taken place with the Trans Pennine Trail organisation and the Canal & River Trust. Further consultation is planned with local community groups, bus operators, and emergency services (Police, Fire, and Ambulance).

An equestrian centre located adjacent to the A633, between the two structures, currently lacks formal access to the TPT without crossing the highway. Providing a dedicated connection could offer clear safety and accessibility benefits, and this is being explored through ongoing discussions.

To the south of the scheme lies an industrial estate and enterprise business park, including major local employer Billington Structures Ltd. These businesses are expected to benefit from the scheme through the avoidance of potential weight restrictions and the removal of the existing low headroom constraint.

Stakeholder feedback to date has been positive, with no significant controversial issues identified. Ongoing engagement will continue to inform the scheme's development and maximise local benefits.

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.

Barnsley Metropolitan Borough Council adopts a systematic, data-led approach to prioritising structural maintenance across its highway assets. This is underpinned by continuous condition monitoring, delivered through a comprehensive inspection regime in accordance with DMRB CS 450 standards and the *Well-Managed Highway Infrastructure Code of Practice*.

The inspection programme comprises General Inspections undertaken at two-year intervals and more detailed Principal Inspections, including hands-on (tactile) assessments, carried out every six years, as required for each structure. Following each inspection, a Bridge Condition Indicator (BCI) Pro-Forma is completed, capturing all identified defects to all structural elements.

For each defect, both severity and extent are recorded, alongside recommended remedial actions and an associated priority rating (Low, Medium, High, or Urgent). BCI scores are then calculated out of 100 for both critical elements and the overall structure condition, providing a consistent basis for comparison across the asset portfolio.

All inspection data, including identified works, is stored within the AMX asset management system. This enables efficient filtering and analysis of information by criteria such as priority, defect type, and structure classification. The system also allows assets to be categorised by the classification of the route they carry (e.g. A, B, C, or unclassified roads).

This structured, risk-based approach enables maintenance needs to be assessed and prioritised effectively, ensuring that investment decisions are targeted to achieve the greatest benefit across the network. Since this systematic approach was adopted these works have not bee undertaken due to the remedial works not providing value for money given the likely low extension of residual life of each asset. The required capital funding required for replacement which is the most cost effective option is therefore the subject of this bid.

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 A633 scheme has been selected based on a combination of condition, strategic importance, and overall value for money. This section of the highway, including both the highway bridge and the adjacent rail bridge, was previously identified within a South Yorkshire Mayoral Combined Authority (SYMCA) Challenge Fund proposal, reinforcing its recognised need for intervention.

While the structure is not the poorest in condition across the entire Barnsley network, it represents the most deteriorated asset on the A-class road network, which forms a critical component of the borough's strategic transport routes. In addition, a known flooding issue exists approximately 150 m from the highway bridge beneath a former railway structure now carrying the Trans Pennine Trail which

has resulted in full closures of the route in 2007 and 2019. As this is also a low bridge, addressing all three issues as a single coordinated scheme is considered both efficient and cost-effective.

The A633 accommodates approximately 17,300 vehicles per day, subjecting the highway bridge to significant dynamic loading and accelerating deterioration compared to structures on lower-classified roads. Although alternative schemes on rural B, C, and unclassified roads may involve longer diversion routes, the associated traffic volumes are substantially lower, reducing their overall impact.

Finally, the scheme has been prioritised due to its potential to deliver the greatest benefit to local communities, improve network resilience, and support positive economic outcomes across the area.

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.

The A633 is a critical strategic route linking Barnsley and Rotherham, two of South Yorkshire's principal urban centres. At a local level, it also provides a key connection between Barnsley and Wombwell, one of the borough's seven principal towns. Maintaining the reliability of this route is therefore essential to both regional connectivity and local accessibility.

The existing highway bridge over the river is approaching the limits of its structural capacity, particularly at the edge beams. Without intervention, load restrictions or full closure may be required. Given the strategic importance of the A633, this would necessitate lengthy diversions and significantly disrupt network performance. A full replacement solution provides a durable, long-term outcome and avoids these risks.

In addition, the vertical alignment of the highway was lowered historically to accommodate the railway, creating a pronounced low point beneath the former railway bridge. This has led to recurring flooding, which has already resulted in multiple full closures and temporary severance of the route between Barnsley and Wombwell.

The A633 currently carries approximately 17,300 vehicles per day. In the event of closure, traffic would be diverted via the A635 and A6195, a route approximately 9 miles longer, adding around 20 minutes to journey times.

Failure to deliver the scheme would therefore result in increased disruption, reduced network resilience, and significant adverse impacts on local communities and economic activity.

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 plays a critical role in preventing both existing and future community severance along the A633 corridor, which is a key route linking Barnsley and Rotherham and the townships on the route such as Wombwell and Wath.

Currently, the route is vulnerable to disruption due to flooding at the low point beneath the former railway bridge carrying the Trans Pennine Trail (TPT). These flooding events have already resulted in full road closures, severing connections for all users, including private vehicles, public transport, pedestrians, and cyclists. This disrupts access to employment, education, healthcare, and local services, and can require lengthy diversions that disproportionately affect those without access to private vehicles. The closures have lasted several days and impacted the nearby Netherwood Acadamey of 1,200 pupils, public transport links to Wombwell train station and the nearby industrial and enterprise parks.

In addition, the highway bridge over the River Dove has an assessed 25T capacity. Without intervention, this is likely to result in a weight restriction that would prevent use by HGVs, LGVs, and public service vehicles. This would effectively sever the route for freight and bus services, impacting local businesses, supply chains, and public transport connectivity between Barnsley and Wombwell.

The scheme will remove these risks by replacing both structures, eliminating flood-related closures, maintaining full vehicle access, and removing the low headroom constraint. This will improve network resilience and ensure reliable connectivity for all transport modes.

By safeguarding and enhancing this key link, the scheme prevents community severance, supports inclusive access to essential services, and strengthens economic and social connections across the area.

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.

Traffic data collected from monitoring sites on either side of the scheme indicates that the A633 carries approximately 17,300 vehicles per day. This comprises around 14,143 cars, 2,729 light goods vehicles (LGVs), 258 heavy goods vehicles (HGVs), and 175 public service vehicles (PSVs), highlighting the route's importance for both general traffic and commercial and public transport movements.

In the event of flooding, which currently occurs at the low point beneath the former railway bridge, the A633 is subject to full closure. This results in complete severance, affecting all user groups and disrupting connectivity between Barnsley and Wombwell. All transport modes, including private vehicles, freight, and bus services, are required to divert via longer alternative routes.

Furthermore, should the highway bridge continue to deteriorate, it is likely that a weight restriction will be introduced. This would disproportionately affect LGVs, HGVs and PSVs, preventing their use of the route and effectively severing access for freight movements and public transport, with associated impacts on local businesses and communities.

In addition to motorised users, the scheme also affects non-motorised users. Traffic counts on non-motorised users of the TPT near to the 3.208 TPT bridge show a count of 343 AADT daily users. The Trans Pennine Trail (TPT) is known to be well-used by walkers, cyclists and equestrian users. This includes regular use by the nearby Aldham Mill Equestrian Centre, located between the two structures.

Without intervention, ongoing flooding issues will continue to cause severance for both motorised and non-motorised users, reinforcing the need for the proposed scheme.

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 scheme will deliver a range of economic benefits by improving connectivity, network efficiency, and resilience on the A633 corridor, which is a key route linking Barnsley, Wombwell and the wider South Yorkshire area.

A primary source of economic benefit is the avoidance of journey time increases and network disruption. Without intervention, the introduction of a weight restriction on the highway bridge would require LGVs, HGVs and PSVs to divert onto alternative routes, increasing journey lengths by approximately 3.6 km and journey times by at least 2 minutes. In practice, this delay is likely to be greater due to congestion at key junctions including Stairfoot Roundabout, Wath Road Roundabout and Cathill Roundabout. The scheme therefore preserves efficient journey times and network performance.

Further benefits arise from reduced congestion and improved traffic flow, particularly through the removal of the low headroom constraint and reduction in flood-related closures. This enhances journey time reliability and reduces unplanned disruption for all road users.

The scheme also delivers vehicle operating cost savings and environmental benefits. By avoiding diversionary routing and inefficient stop-start conditions, it reduces fuel consumption and associated greenhouse gas emissions. Infrastructure carbon emissions have been calculated using the National Highways Scheme Carbon Tool which has been provided as evidence.

Quantified outputs from the economic assessment toolkit indicate significant benefits, including decongestion (£53.6m), journey time savings (£8.8m), vehicle operating cost savings (£22.4m), and greenhouse gas reductions (£9.3m), demonstrating strong overall value for money.

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)	£6,682,987
Present Value Benefits (PVB)	£102,662,890
Benefit to Cost Ratio (BCR)	15.4

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.

Scheme costs have been developed at a high level based on benchmarking against comparable bridge replacement and highway schemes previously delivered by BMBC, resulting in an initial capital estimate of £8.6m. Costs will be refined through preliminary and detailed design as scope, quantities, and delivery methodology become better defined.

In line with DfT TAG A1.2 guidance, an optimism bias has been applied to reflect the early stage of scheme development. For 'Fixed Links' highway and structures schemes at concept stage, TAG identifies a typical upper bound optimism bias of 55% for fixed links. A value of 55% has been adopted for this scheme, reflecting the use of benchmark data and existing asset knowledge, while still accounting for uncertainty.

A separate quantified risk allowance of 25% has also been included. This reflects key delivery risks at this stage, including ground conditions, utilities diversions, construction constraints, traffic management, and flood risk. The combined approach ensures both unidentified and identifiable risks are appropriately captured.

The economic appraisal assumes a 'do minimum' scenario in which continued deterioration of the highway structure results in a 3.5T weight restriction by 2030, based on current structural assessments. Traffic data is derived from DfT count site 57338 (2024 AADF).

Operating, Maintenance and Renewal costs are currently preliminary; therefore, a 20% optimism bias has been applied as maintenance activities are well understood. These will be refined at the next stage in line with lifecycle assumptions.

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).

The scheme economic toolkit inputs are based on a range of recognised data sources and clearly defined assumptions, appropriate to the current stage of scheme development.

Traffic flow data, including vehicle type proportions and HGV classification (rigid and articulated), has been sourced from DfT count site 57338 (2024 AADF), located in close proximity to the scheme. This provides a reliable and representative dataset for baseline traffic conditions. Basic validation checks were undertaken to confirm consistency with typical flows expected on a principal A-road within the Barnsley area.

The scheme area classification has been derived from MSOA E02001531, identified as an Inner and Outer Conurbation, ensuring alignment with DfT appraisal definitions. At this stage, no specific congestion band has been applied; however, this will be reviewed as part of further appraisal development.

Journey times and diversion distances were obtained using Google Maps routing. These estimates do not incorporate peak-time congestion effects and are therefore considered conservative, as actual delays—particularly at key junctions—are likely to be greater.

The appraisal period has been set at 60 years, in accordance with the guidance. While the TPT structure is also included in the scheme, its deterioration is not expected to generate equivalent network-wide traffic impacts if considered in isolation.

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.

The scheme delivers several significant non-monetised benefits across the following:

- Commuting And Another Users
- Reliability Impact On Commuting And Other Users
- Physical Activity
- Journey Quality
- Accidents
- Security
- Access To Services
- Affordability
- Severance

Economically, removal of the existing low headroom 3.208 structure will eliminate height restrictions (currently limiting high-sided vehicles to 4.7m) on the A633, improving accessibility for freight. This will enhance route suitability for local industry, including businesses within the adjacent industrial estate such as Billington Structures Ltd, enabling more efficient movement of goods and supporting productivity and growth.

The scheme will also address persistent flooding at the low point beneath the 3.208 structure on the A633, an issue that has already caused multiple road closures. Eliminating this constraint will improve network resilience and reliability; however, the full disruption impacts of unplanned closures are difficult to quantify within the economic toolkit.

Social and environmental benefits include improvements to the Trans Pennine Trail (TPT) through replacement of the existing bridge, enhancing conditions for pedestrians, cyclists, and equestrian users. This supports active travel, improves safety, and promotes healthier lifestyles while strengthening connections between communities and aligns well with local initiatives and priorities.

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).

N/A

Present Value Costs (PVC)	N/A
Present Value Benefits (PVB)	N/A
Benefit to Cost Ratio (BCR)	N/A

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.

Barnsley Metropolitan Borough Council (BMBC), as the Local Highway Authority (LHA), has the in-house capability and experience required to successfully deliver this scheme. The Council maintains dedicated Highways Design, Highway Maintenance, and Structures teams with expertise spanning highway alignment, drainage, pavements, surfacing, traffic management, signing and lining, and bridge engineering. The Structures team includes Chartered Engineers experienced in the assessment, design, procurement, and construction supervision of highway and bridge schemes of a similar scale and complexity.

BMBC also operates an in-house Direct Labour Organisation (DLO) with extensive experience delivering highway and civil engineering works. This provides flexibility in delivery planning, allowing appropriate elements of the scheme to be undertaken internally, while specialist bridge construction and utility diversion works are procured externally where required.

The Council has a strong track record of delivering comparable infrastructure projects. Recent examples include the £2m Cundy Cross Highway Scheme, the £300k Silkstone Cross Bridge Strengthening Scheme, the £600k Lockwood Subway Soffit Reconstruction Scheme, and the £2m Penny Pie Park Footbridge. These projects were delivered through multidisciplinary teams and demonstrated successful management of design, procurement, stakeholder engagement, construction, and project governance.

Where specialist skills or additional resource are required, BMBC has access to established professional services and contractor frameworks, including YORConsult and YORCivils. These arrangements provide access to experienced suppliers in areas such as geotechnical engineering, environmental assessment, ecology, utilities, and cost management, ensuring any capacity gaps can be effectively addressed and delivery risks minimised.

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 scheme is currently at the completion of the feasibility and options appraisal stage, with preferred options being identified for the replacement of both bridge structures and associated highway works. Subject to funding approval, the scheme will progress through preliminary design, detailed design, procurement, construction, and handover.

During the preliminary design stage, BMBC will undertake further stakeholder engagement and consultation, including coordination with statutory undertakers to identify utility constraints and diversion requirements. The necessary environmental, ecological, topographical, and ground investigation surveys will also be completed to inform design development. In parallel, the required

technical approvals for the bridge structures will be secured in accordance with relevant standards and procedures.

The detailed design stage will develop the preferred option into a construction-ready package, including design calculations, drawings, specifications, contract documentation, construction phasing, traffic management requirements, and health and safety information. Any remaining statutory consents, approvals, and utility agreements will be completed during this stage.

Construction delivery will be procured through an established civil engineering framework, such as YORCivils, providing access to experienced contractors and a proven procurement route. Opportunities to utilise BMBC's in-house Direct Labour Organisation (DLO) for suitable highway works will also be explored to maximise efficiency and value for money.

The works are anticipated to be delivered under an NEC contract, likely Option A or C, reflecting the scale and complexity of the scheme. BMBC has significant experience procuring and managing NEC contracts, providing confidence in the successful delivery of the project to programme and budget.

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.

A project risk register has been established and is actively maintained to identify, monitor, and mitigate risks that could affect delivery of the scheme within the Structures Fund programme and the target completion date of January 2030. The risk register is integrated with the project programme, enabling risks to be managed alongside key milestones and dependencies. The programme also includes appropriate contingency to accommodate unforeseen events, with risks subject to regular review through the project governance process to ensure timely mitigation and management.

The principal delivery risk at this stage relates to statutory undertaker (utility) apparatus and any diversion requirements. Initial C2 utility searches have confirmed the presence of services in the vicinity of the structures; however, detailed engagement with utility providers is ongoing to establish the extent of any protection, diversion, or relocation works required. Early consultation will continue throughout the design stage to minimise programme impacts.

Ground conditions and geotechnical risks, including unforeseen obstructions, poor ground conditions, or contamination, will be mitigated through detailed ground investigation and site surveys. The scheme is located within Flood Zone 3 adjacent to the River Dove, and flood risk therefore represents a key consideration. This will be managed through detailed hydraulic and drainage assessments to inform the design and secure the necessary approvals.

Environmental and ecological risks will be managed through targeted surveys and early engagement with relevant stakeholders. Previous inspections have not identified evidence of bat roosts within the structures. Land acquisition risk is negligible, as all works are within existing highway boundaries and BMBC-owned land. Approval risks are also reduced as BMBC acts as the Highway Technical Approval Authority.

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.

The principal third-party risk relates to statutory undertakers (utilities), as services are known to be present within and around both bridge structures. Initial C2 utility searches have been completed and discussions with utility providers will continue through the preliminary and detailed design stages to identify any protection, diversion, or relocation requirements. Early engagement has been built into the programme to reduce the risk of delays and ensure utility works are coordinated with the main construction activities.

The scheme also requires engagement with the Environment Agency and the Local Drainage Board due to the River Dove crossing and the site's location within Flood Zone 3. These organisations will be consulted throughout the design process to ensure flood risk, drainage, and environmental requirements are incorporated into the scheme at an early stage but initial scheme proposals are to improve current provisions with respect to flooding and drainage.

Additional stakeholders include the Trans Pennine Trail organisation, emergency services, public transport operators, local businesses, and community groups.

The South Yorkshire Mayoral Combined Authority has been consulted throughout the development of the scheme and has demonstrated its support in an accompanying letter of support from the Mayor. Furthermore, all works are proposed within existing highway boundaries and land owned by BMBC, eliminating third-party land acquisition risks.

Overall, third-party engagement requirements are understood and manageable, with early consultation and established stakeholder relationships providing confidence in successful scheme delivery.

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	£	£100,000	£1,811,950	£5,973,800	£7,885,750
LA contribution	£	£250,000	£250,000	£250,000	£750,000
Other contribution	£	£	£	£	£
Total costs	£	£350,000	£2,061,950	£6,223,800	£8,635,750

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.

Barnsley Metropolitan Borough Council (BMBC) manages its highway assets using a risk-based asset management approach, prioritising investment across the local network to maximise safety, serviceability, and value for money. Available capital funding is required to maintain a wide range of competing priorities and assets, including carriageways and footways, drainage, structures, street lighting, signage and road markings across the borough.

The Aldham Bridges Replacement Scheme represents a significant capital investment £8.6M that cannot be reasonably accommodated within existing annual highway maintenance budgets without displacing other essential network-wide interventions. DfT maintenance allocations, via SYMCA, total £5.94M in 2026/27. Prioritising this Government funding to this bridge maintenance scheme would leave nothing to support other highway maintenance priorities. Whilst the Council is also contributing £5.3M to highway maintenance this year, this would in no way be able to deliver the level of demand for maintenance across the different asset types in year. Recognising the importance of the structures, BMBC has continued to inspect, assess, and maintain the assets to ensure they remain safe and operational while funding opportunities have been explored. Previous funding for the scheme was sought through the Local Highways Maintenance Challenge Fund in 2019, demonstrating the authority's longstanding recognition of the need for intervention.

The challenge in undertaking major repairs earlier is that maintenance interventions alone would not address the underlying issues affecting both structures. The highway bridge continues to experience deterioration that has reduced its load carrying capacity, creating the potential for future weight restrictions. Similarly, the existing Trans Pennine Trail bridge presents ongoing issues relating to low headroom, highway flooding, and long-term maintenance liabilities. As outlined in the whole-life cost assessment, continued maintenance of the existing structures is less cost-effective than replacement.

Given the scale of investment required and the strategic importance of the route, external funding is necessary to deliver a sustainable long-term solution while allowing BMBC to continue managing the wider highway network effectively.

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.

Whole-life costs for the existing structures have been assessed over a 60-year appraisal period and are detailed within the accompanying economic toolkit. The assessment is based on anticipated maintenance, operation, renewal, and end-of-life activities for both the highway bridge (3.210) and the Trans Pennine Trail bridge (3.208). Maintenance interventions were identified using typical bridge asset lifecycle requirements and costed using current rates, with future costs projected using annual inflation assumptions of 2.5%.

The assessment includes activities such as bridge deck waterproofing, steelwork repainting, parapet replacement, masonry repairs, bearing replacement, and eventual demolition at the end of the asset life. These interventions represent significant ongoing liabilities and are required to maintain the structures in a safe and serviceable condition.

The proposed replacement scheme substantially reduces these future liabilities through the use of modern designs and materials that require less maintenance. For example, the proposed highway bridge is an integral reinforced concrete structure, eliminating the need for bearings and removing future costs associated with bearing inspection, maintenance, and replacement. The use of reinforced concrete also removes the requirement for periodic steelwork repainting. Similarly, the replacement TPT bridge will incorporate modern maintenance-friendly details, reducing the complexity and cost of future interventions.

The assessment indicates that the whole-life cost of retaining the existing structures is approximately £15.1m. By comparison, the whole-life cost of the proposed scheme, including construction, maintenance, and renewal costs, is approximately £11.35m. This represents a whole-life saving of approximately £3.75m while also delivering significant improvements in resilience, reliability, and network performance.

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 scheme cost estimate has been developed using a bottom-up approach based on the current concept and feasibility design. The estimate was prepared collaboratively by BMBC's Construction Technical Manager, Highways Maintenance Group Manager, and Bridge Manager, drawing upon their experience of delivering comparable highway and bridge schemes within the borough.

The estimate has been structured in accordance with the Specification for Highway Works (MCHW), with costs developed against the relevant work activity series. Indicative quantities and extents have been derived from the current design proposals and priced using a combination of historic cost data, current contract rates, and market-tested rates from similar projects recently delivered or being delivered by BMBC. This includes works such as surfacing, structures, drainage, street lighting, traffic management, safety barriers, and survey activities.

The resulting estimate has been reviewed against comparable bridge replacement and highway improvement schemes to provide assurance that the assumed rates and quantities are appropriate for the current stage of development.

As the scheme remains at feasibility stage, allowances have been included for contingency and future inflation to reflect the uncertainty associated with developing designs and future market conditions. Inflation assumptions have been applied to account for anticipated cost increases over the expected design and delivery period.

The estimate is therefore considered appropriate for the current level of design maturity. As the scheme progresses through preliminary and detailed design, further surveys, investigations, and quantity development will enable the estimate to be refined, improving cost certainty and reducing the level of estimating uncertainty.

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.

Financial risks have been considered in the development of the outline cost estimate and reflect the current stage of scheme development. As the scheme remains at concept and feasibility stage, there is uncertainty around the scope, quantities, construction methodology, and the requirements of third-party stakeholders. To address this, an overall contingency allowance has been included within the estimate to provide resilience against unforeseen costs and emerging risks as the design develops.

The principal financial risk relates to statutory undertaker apparatus located within and around the structures. While initial utility searches have identified the presence of services, the extent of any protection, diversion, or relocation works is not yet fully understood. As these works have the potential to impact both cost and programme, a contingency allowance has been included to accommodate this uncertainty.

Other key cost risks include ground conditions, potential contamination, flood mitigation requirements associated with the River Dove and Flood Zone 3 location, environmental and ecological mitigation measures, and temporary traffic management arrangements required during construction. These risks will be progressively reduced through detailed surveys, investigations, stakeholder engagement, and design development.

The scheme cost estimate will be reviewed and refined at each stage of development as additional information becomes available and risks are either mitigated or quantified. In addition, appropriate allowances for risk and optimism bias have been applied within the economic appraisal to reflect the current level of project maturity and estimating uncertainty.

This approach ensures that both known and emerging risks are recognised and managed, providing a realistic and proportionate estimate for the current stage of the scheme.

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.

Barnsley Metropolitan Borough Council (BMBC) is committed to providing a local contribution of **£750,000** towards the estimated **£8.6 million** capital cost of the scheme, representing approximately **8.7%** of the total project cost. This contribution is fully aligned with BMBC's capital programme and demonstrates the Council's commitment to delivering the scheme.

The local contribution will primarily support the development phase of the project, including preliminary and detailed design, project management, technical approvals, and the specialist surveys and investigations required to progress the scheme. These include topographical surveys, ground investigations, environmental studies, ecological assessments, and stakeholder engagement activities. BMBC will also be responsible for funding the future operation, maintenance, and renewal costs of the replacement structures.

The principal funding request is therefore focused on supporting the construction phase, where expenditure is significantly greater and beyond the scale that can be accommodated within existing local highways budgets.

In addition to BMBC's commitment, discussions are ongoing with the South Yorkshire Mayoral Combined Authority (SYMCA) regarding potential support for the scheme. SYMCA has already demonstrated its support through the allocation of development funding to assist with scheme progression and preparation of the Structures Fund submission.

BMBC is also exploring opportunities to secure complementary funding from flood resilience and flood risk management programmes, recognising that the scheme will address a known flooding issue on the A633.

At present, BMBC's contribution is confirmed, while other third-party funding opportunities are being actively pursued to further strengthen the scheme's funding package and overall affordability.

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?

September 2028

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

January 2030

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 scheme will be delivered in accordance with BMBC's established project management and governance processes, aligned to a structured Project Controls Framework. This provides a clear progression through key stages: feasibility, preliminary design, detailed design, procurement, construction, and handover.

The scheme is currently at the concept and feasibility stage, where structural options are being developed and assessed. Subject to funding approval, the preferred option will be progressed through preliminary and detailed design. These stages will be primarily delivered in-house by BMBC's Highways and Structures teams, providing strong technical continuity and cost control. Specialist inputs such as geotechnical, environmental, ecological, and cost consultancy will be procured through established professional services frameworks (e.g. YORConsult, Midlands Highway Alliance), ensuring access to experienced and pre-qualified suppliers.

Construction delivery will be undertaken by an appointed Principal Contractor, procured either through a compliant open tender process or via an existing civil engineering framework (such as YORCivils), both of which BMBC has extensive experience using to deliver similar infrastructure schemes.

The project will be managed internally by BMBC's engineering and project management team, drawing on proven delivery experience from comparable schemes (reference to be provided). In addition, BMBC's Direct Labour Organisation (DLO) may be utilised to deliver elements of the highway works, enabling efficient resource use and reducing interface risks, while the Principal Contractor focuses on

the structural components.
This approach provides a high level of delivery certainty through established processes, experienced internal teams, and proven procurement routes.

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 comprehensive project risk register has been developed and will be actively managed throughout the scheme lifecycle. The register is integrated with the project programme and subject to regular review through BMBC's project governance arrangements to ensure risks are identified early and effective mitigation measures are implemented. Programme contingency has also been incorporated to provide resilience against unforeseen events and support delivery within the Structures Fund timescales.The principal delivery risks relate to statutory undertaker (utility) apparatus, ground conditions, flood risk, and environmental constraints. Initial C2 utility searches have confirmed the presence of services in the vicinity of both structures, and early engagement with utility providers will continue throughout the design process to identify and coordinate any required diversion or protection works. Detailed ground investigation, topographical, environmental, and ecological surveys will be undertaken to reduce uncertainty and inform the detailed design.The scheme is located within Flood Zone 3 adjacent to the River Dove. Flood risk will be managed through hydraulic assessments, close engagement with the Environment Agency and the local drainage board, and the incorporation of appropriate mitigation measures within the design.Financial risk is being managed through the inclusion of appropriate risk and contingency allowances within the cost estimate, reflecting the current stage of scheme development. Costs are based on benchmarking against comparable bridge replacement schemes and will be refined as the design progresses. Regular cost reviews, risk monitoring, and value engineering will be undertaken throughout delivery. Should cost overruns occur, BMBC is able to fund these through its capital programme, with the potential for additional support from the South Yorkshire Mayoral Combined Authority if required.There are no land acquisition risks, as all works are contained within existing highway boundaries and land owned by BMBC.

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.

BMBC will apply established project management, governance, and financial control processes throughout the development and delivery of the scheme to ensure it is delivered on time and within budget.
The scheme will be managed through a structured Project Controls Framework, with progress monitored against an agreed programme covering feasibility, design, approvals, procurement, construction, and handover. Key milestones, dependencies, and critical path activities will be regularly reviewed to identify potential delays and enable early intervention where required.
A project risk register has been developed and will be maintained throughout the scheme lifecycle. Risks are reviewed regularly by the project team and escalated through BMBC's governance arrangements where necessary. Mitigation measures, risk owners, and target resolution dates are assigned to ensure proactive management of delivery risks. The scheme will also be subject to governance from Cabinet to accept funding and place any necessary reporting controls on the scheme.
Financial control will be maintained through regular cost reporting, budget monitoring, and cost estimate reviews as the design develops. Appropriate allowances for risk and contingency have

been incorporated within the scheme estimate to reflect the current stage of development. Value engineering reviews will be undertaken throughout the design process to ensure that the scheme remains affordable while continuing to meet its objectives. The scheme will be subject to regular review by the Capital Oversight Board for Control.
BMBC has significant experience of procuring, tendering and administering NEC contracts and delivering highway and bridge schemes through established framework agreements and competitive procurement routes. Progress meetings with designers, contractors, utility companies, and other stakeholders will be undertaken throughout delivery to monitor programme, costs, and risks.
This combination of programme management, risk control, financial monitoring, and experienced governance provides confidence that the scheme can be delivered within the required timescales and budget.

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 scheme does not require any third-party permissions that would prevent its delivery; however, a number of statutory consents, approvals, and stakeholder agreements will be required as the design progresses.
Given the scheme's location over the River Dove and within Flood Zone 3, engagement and approval will be required from the Internal Drainage Board and other relevant regulatory bodies in relation to works affecting the watercourse, flood risk, and drainage arrangements. These requirements are well understood and will be progressed during the preliminary and detailed design stages. Based on the current scope of works, no significant barriers to obtaining these approvals are anticipated.
The scheme will also require ongoing engagement with Statutory Undertakers (utilities) to identify any protection, diversion, or relocation works associated with apparatus located within or adjacent to the structures. While utility diversions have the potential to affect programme delivery, early consultation has been incorporated into the project programme to minimise this risk and secure the necessary agreements in a timely manner.
The Trans Pennine Trail (TPT) organisation and other local stakeholders will continue to be consulted throughout scheme development to ensure user requirements are understood and, where practicable, incorporated into the design. As the TPT route is located on land owned by BMBC, no third-party landowner consent is required.
Overall, the required consents and approvals are typical for a bridge replacement scheme of this nature and are not considered significant barriers to delivery. Early engagement with all relevant organisations has been built into the programme to ensure approvals are secured within the required timescales.

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.

Climate adaptation and long-term resilience have been key considerations in the development of the scheme. The proposals address existing vulnerabilities associated with flooding, structural deterioration, and operational constraints on this important transport corridor between Barnsley and Wombwell.

The scheme is located adjacent to the River Dove within Flood Zone 3. The existing highway alignment passes beneath the Trans Pennine Trail (TPT) bridge at a low point, which has resulted in repeated flooding events and temporary closures of the A633. As part of the scheme, highway drainage and associated drainage infrastructure will be reviewed and upgraded to improve the management of surface water and reduce the likelihood of future flooding. This will improve network reliability during periods of heavy rainfall and extreme weather. The scheme will also be linked with the Connected by Water (CbW) partnership which is an alliance of seven partners: • South Yorkshire Mayoral Combined Authority • Barnsley Metropolitan Borough Council • City of Doncaster Council • Rotherham Metropolitan Borough Council • Sheffield City Council • The Environment Agency • Yorkshire Water

This partnership forms part of the to be published Integrated Flood and Water Management Strategy addressing the following priorities: • Asset management & maintenance• Community preparedness & behaviour change • Economy, housing and planning • Sustainable investment

The design process will incorporate flood risk, hydraulic, and drainage assessments to ensure that future climate conditions are considered and that flood risk is not increased elsewhere. Engagement with the Environment Agency and Internal Drainage Board will support development of an appropriate drainage solution.

The scheme also improves network resilience by replacing the deteriorating highway bridge, reducing the risk of future weight restrictions, and removing the existing low-headroom constraint over the A633. Together, these improvements will maintain access for freight, public transport, and local communities, while reducing the risk of disruption and diversion.

Overall, the scheme will enhance the long-term resilience, reliability, and adaptability of the highway network.

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).

Carbon management has been considered throughout the development of the scheme and will continue to be refined as the design progresses. A preliminary whole-life carbon assessment has been undertaken using the National Highways Carbon Tool to estimate emissions associated with construction materials, transportation, construction activities, and maintenance requirements. This assessment will be reviewed and updated during the preliminary and detailed design stages to support informed decision-making and identify opportunities to reduce carbon.

The scheme will seek to minimise embodied carbon through the efficient use of materials, optimisation of structural forms, and the consideration of low-carbon construction methods where technically and economically appropriate. Opportunities to maximise reuse and recycling of materials generated by the works will also be explored during the detailed design and construction planning stages. BMBC would also endeavour to deliver a 20% net gain in biodiversity as a result of the scheme being successful.

Operational carbon benefits are also anticipated. The scheme will reduce the risk of future weight restrictions on the highway bridge and remove the existing low-headroom constraint on the A633. This will help avoid diversionary routes for freight, public transport, and other vehicles, reducing additional vehicle mileage, fuel consumption, and associated emissions. Improvements to highway drainage will also reduce the likelihood of flood-related closures and unplanned diversions, further supporting network efficiency.

In addition, replacement of the bridge carrying the Trans Pennine Trail will improve resilience and accessibility for pedestrians, cyclists, and equestrian users, supporting active travel and sustainable transport objectives.

A carbon management approach will be developed alongside the design process to ensure whole-life carbon is considered and reduced wherever practicable while delivering a resilient and reliable transport asset.

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.

C2 utility searches have been undertaken for both Structure 3.210 (A633 Highway Bridge) and Structure 3.208 (Trans Pennine Trail Bridge) to identify statutory undertakers' apparatus that may be affected by the scheme. The searches have identified the presence of infrastructure belonging to Cadent Gas, CityFibre, Northern Powergrid, Virgin Media, Openreach (BT), and Yorkshire Water.A consolidated utilities record is being developed to inform the design process and identify potential conflicts between the proposed works and existing apparatus. An allowance has been included within the scheme programme and cost estimate for further utility investigations, detailed engagement with utility providers, and any necessary protection, diversion, or accommodation works.Utilities present one of the principal delivery risks to the scheme. Apparatus located beneath the existing TPT bridge may require diversion if alterations to the highway level are required to address the current flooding issues. In addition, utilities currently carried across or adjacent to the highway bridge may require incorporation into dedicated service corridors, ducts, or bays within the replacement structure. These requirements have the potential to influence both programme and cost.To mitigate this risk, engagement with utility providers will commence during the preliminary design stage to confirm asset locations, establish protection or diversion requirements, and agree delivery timescales. BMBC has significant experience managing utility coordination on major highway schemes and will apply established processes to minimise programme impacts. This approach was successfully employed on the recent Cundy Cross Highway Scheme, where utility diversions were effectively coordinated alongside the main works.

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)

The equality impacts of the scheme have been considered through an Equality Impact Assessment, which will continue to be reviewed and updated as the design develops. Particular consideration has been given to groups with protected characteristics, including disabled people, older people, and those with mobility impairments, who may experience disproportionate impacts from existing infrastructure constraints and temporary construction activities.

The completed scheme will deliver positive equality outcomes by improving accessibility and safety for pedestrians and other vulnerable users. The existing TPT bridge creates a constrained environment beneath the structure, with narrow footways and limited pedestrian provision due to the proximity of the bridge abutments. This can require users to cross the carriageway or, in some circumstances, share road space with vehicular traffic. Replacement of the structure provides an opportunity to improve the layout, accessibility, and overall user experience for pedestrians, cyclists, equestrians, and other non-motorised users.

Temporary adverse impacts are most likely to occur during the construction phase, when closures or restrictions on the A633 and TPT may be required. Diversion routes are likely to result in longer and potentially less convenient journeys for all users, with disabled people and those with reduced mobility potentially affected to a greater extent.

To mitigate these impacts, equality considerations will be incorporated into traffic management and diversion planning. This will include maintaining safe access where practicable, providing accessible diversion routes, and undertaking ongoing engagement with affected stakeholders. Upon completion, the scheme is expected to provide improved accessibility, safety, and connectivity for all user 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.

www.barnsley.gov.uk/aldham-bridges-replacement

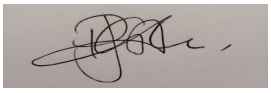
3.3 Declarations

Senior Responsible Owner declaration

As Senior Responsible Owner for [3.210 & 3.208 – Aldham Bridges Replacement Scheme], I hereby submit this request for approval to DfT on behalf of [Barnsley Metropolitan Borough Council] and confirm that I have the necessary authority to do so.

I confirm that [Barnsley Metropolitan Borough 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: Paul Castle

b) Signed: 

c) Date: 3/8/26

d) Email: paulcastle@barnsley.gov.uk

Section 151 Officer declaration

As Section 151 Officer for [Barnsley Metropolitan Borough Council], I declare that the scheme cost estimates quoted in this proposal are accurate to the best of my knowledge and that [Barnsley Metropolitan Borough 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: Steve Loach (Deputy S151)

f) Signed: 

g) Date: 03/08/26

h) Email: steveloach@barnsley.gov.uk