



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: Wokingham Borough Council
- b) Scheme / structure name and LHA bridges number: Pingewood Road South (AMX asset references 026N and 026S)
- c) Location (OS Grid Reference) of the scheme/structure (to identify location on map):
- Easting: 469917
- Northing: 169201
- d) Name of Project Manager: [REDACTED]
- e) Email address: [REDACTED]
- f) Phone number: [REDACTED]
- 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 structure comprises a highway embankment located on Pingewood Road South within Wokingham Borough. The embankment rises from ground level in the west to approximately 6 metres in height at the junction with Kybes Lane, with side slopes of approximately 25 degrees

1(V):2(H). It carries a local highway and comprises Made Ground (embankment fill) overlying alluvium, river terrace deposits and London Clay.

The asset has historically been unstable, requiring numerous interventions (quarterly monitoring surveys) to maintain carriageway alignment. The inspection regime has shown defects worsening and propagating into the carriageway in the form of 'D' shaped depressions and large downthrown cracks and dips in the kerb line. Remedial works (carriageway cracks patching) have been undertaken to reduce the risk to road users and lessen the maintenance burden of the assets with continuing near annual inspections and quarterly ground movement monitoring.

The nature of the problem is associated with ongoing embankment instability, leading to deterioration of the highway. Identified risks include slope failure, differential settlement and water ingress, contributing to instability and continued deformation of the carriageway. The site also contains constraints, including buried utilities and a culvert, increasing management complexity.

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 intervention comprises stabilisation of approximately 100m of the existing highway embankment through the construction of parallel sheet pile walls along the crest of Pingewood Road South, offset from the existing kerb line. The works also include earthworks comprising benching into the existing slope and placement of engineered fill behind the sheet pile walls, together with full depth reconstruction of the carriageway within the affected area (approximately 220m in length).

New drainage infrastructure is proposed, including installation of carrier drains and connections from existing gullies. The scheme has been developed following investigation works undertaken in 2024 to confirm ground conditions and provide geotechnical parameters for remedial design.

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

No part of the structure is identified as being owned by a third party and construction of the scheme would be under permitted development rights; however, third-party assets are present within the site, including utilities associated with Scottish and Southern Electricity Networks, Gigaclear and BT Openreach, as well as adjacent private land.

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

The structure is not on a diversion route for the SRN.

1.2 Understanding the Condition of the Structure

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

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

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

The condition of the embankment has been determined through a combination of routine inspections and quantitative monitoring. Earthwork inspections have been undertaken in accordance with the requirements of CS 641, carried out on a near annual basis owing to the

deteriorating condition of the slopes. These inspections identify defects which are classified and assigned feature grades in accordance with the standard.

In addition, the embankment is subject to enhanced monitoring using Permanent Ground Markers (PGMs), with surveys undertaken on a quarterly basis to measure slope movement. Monitoring data has recorded both vertical and horizontal movement of the embankment, with movement exceeding defined warning trigger levels. These thresholds prompt further inspection and management actions.

Inspection and monitoring findings indicate that the embankment is in poor condition, with instability and deformation affecting the structure. The asset has historically required numerous interventions to maintain the alignment of the carriageway, including carriageway reconstruction and kerb replacement undertaken in winter 2023/2024, followed by ground investigation in January 2024 and ongoing inspection and monitoring activities.

Based on the inspection regime, recorded movement and assigned feature grading, remedial intervention has been identified as necessary. The structure has been assigned a feature grade 4 indicating that works should be programmed within the next five years, with monitoring recommendations identifying the need for remedial works to stabilise the slope as soon as possible.

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.

No formal traffic restrictions (closures, weight limits or restrictions on use) are identified as currently in place. A primary consideration for no closure or restrictions is due to the fact that this is the only HGV route serving the businesses around the area. There is also a 7.5t restriction along Berrys Lane, close to this route, which would lead to wider re-routing in case of closure/restrictions.

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

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

Given the condition of the structure, the indications from monitoring, and the remedial works previously delivered, there is a significant risk that traffic restrictions may be required in future. Given the high volumes / proportion of goods vehicles (including HGV) traffic along this route, then weight limits may be part of a future traffic restriction by 2029/30, with future maintenance costs assumed to start in 2028. Based on the continued deterioration of condition of the structure (e.g. an acceleration of embankment movement identified in 2025), the anticipated timescale of potential closure associated with temporary remedial works is from 2031.

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

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

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

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

The structure is currently subject to temporary measures to manage risk including enhanced monitoring and increased maintenance activity. This includes quarterly ground movement monitoring using Permanent Ground Markers, along with regular inspections undertaken due to the deteriorating condition of the embankment. In addition, maintenance interventions such as resurfacing and patch repairs have been undertaken to temporarily address defects affecting the highway.

WBC maintains a priority list for its assets, in which Pingewood features as one with the highest priority for maintenance.

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.

Currently the earthwork is monitored quarterly to establish the on-going movement. The latest (2026) inspection monitoring includes the following comments:

- CH54 and 110 – Telegraph poles leaning between 1.5 and 4 degrees
- CH69-125 – Carriageway slightly sunken towards the kerb
- CH71-86 – Some large reflection cracks / depressions have started to appear in the resurfaced carriageway, particularly where the previous worst cracks / depressions were
- CH163-213 – Some reflection cracks appearing indicate the repairs may only be temporary and underlying slope instability / carriageway foundation is the issue
- CH200-210 – Fatigue cracking of the pavement surface indicative of high volumes of HGV traffic

Embankment monitoring data shows an acceleration of movement between June 2025 and September 2025. Given the embankments at Pingewood Road South are cohesive (likely constructed from locally-sourced London clay material) they have a greater shrink / swell potential and are more susceptible to movement following changes in moisture content. Accelerated movement is thought to be exacerbated by severe seasonal changes in moisture content of the embankments, and hence a continued change in climatic conditions may be a contributory factor to further deterioration of slope stability.

Before the end of 2029/2030, it is expected that further carriageway resurfacing will be required and there is a risk of embankment failure. Temporary measures may include the restriction of HGV traffic.

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: NA

BCI Ave: NA

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.

In a scale of 1 to 5, where 1 is for the condition when no remedial work is required and 5 is when remedial works are required within one year, the highest feature grade on this section is 4; CH10-50 on the north embankment and CH137, CH163-213, CH235-255 on the south embankment., indicating remedial intervention is to be programmed within the next five years (as recommended in CS 641).

- 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.

Pingewood Road South provides an important local highway connection within south-west Wokingham Borough, supporting access for residents, businesses, service providers and freight traffic. The route contributes to local economic activity by maintaining access to employment, commercial premises, community facilities and the wider highway network.

The route provides a vital transport link for highway traffic associated with two key sectors – defence and construction, thereby supporting the Governments Modern Industrial Strategy (IS-8). The AWE Burghfield site, situated 1km south-west of Pingewood Road South, is a major local employer for research and production on behalf of the MoD. The 225-hectare Burghfield site is one of two locations in Berkshire, with 9,000 employees working across these sites. Pingewood Road South provides the shortest route from AWE's main access point to the Strategic Road Network (M4 Junction 11), avoiding other unsuitable local routes with height or width restrictions and a diversion route of 1.87km.

There are a range of local industrial premises that support waste management operations, land deposits and flood management operations including Tarmac (Reading) and other businesses situated directly on Pingewood Road South. These heavy vehicle-intensive operations are dependent upon the local highway network and are vital for economic development, supporting the construction of housing and commercial development.

By safeguarding a key transport connection, improving network resilience and avoiding disruption to local communities and businesses, the scheme supports the Government's Economic Growth Mission through maintaining infrastructure that underpins productivity, connectivity and sustainable economic growth.

- 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.

Detailed investigations and monitoring have confirmed that the deterioration of the Pingewood Road South embankments cannot be addressed through continued maintenance alone and a long-term remediation solution is required. The scheme supports the Governments UK Infrastructure Strategy by fixing the basics; improving resilience and securing the long-term sustainability of transport infrastructure.

The scheme supports the Government's commitment to improving infrastructure resilience and delivering better value from public investment through proactive asset management. By intervening before restrictions become necessary, the project will help avoid the increasing reactive maintenance burden associated with a deteriorating asset.

The scheme contributes to the Government's objective of creating safer communities by proactively maintaining roads and pavements to reduce the risk of structural failure and the associated risk of accidents for users of the route. Delivery of the proposed works will support the long-term safe operation of the highway in line with Governments Safer Streets mission.

Maintaining the route reduces the likelihood of traffic being diverted onto longer alternative and less suitable routes and local rural roads, helping to minimise additional pressure on surrounding communities, reduce unnecessary vehicle mileage and avoid associated emissions. The scheme therefore supports wider Government objectives such as the National Adaptation Programme, recognising surface transport as the highest emitting sector for greenhouse gas emissions across the UK.

Delivery of the proposed scheme would safeguard connectivity and provide dependable transport infrastructure that people and businesses can trust in line with the Governments Better Connected strategy for integrated transport.

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.

WBC recognise the importance of the Pingewood Road South geotechnical asset which is categorised as "major earthworks" and "Group 1 – highest priority" in the Councils Bridge Management System (AMX). The embankments are a longstanding concern, with ongoing inspections and maintenance delivered as part of the Council's risk-based policy. Studies confirm the continued movement of the embankments and that maintenance interventions alone will not address the underlying instability.

The Council's policy is to manage financial and budgetary challenges to support network resilience and respond to the sudden deterioration of asset condition. Ongoing reactive maintenance demonstrates a level of structural inadequacy that may affect the use and safety of the highway network, contrary to the Council's Highway Maintenance Management Plan. As a result, a solution has been developed to provide a long-term and sustainable intervention.

The scheme aligns with WBC's Local Transport Plan 4 commitments and will contribute to LTP4 objectives "safer streets for all", "foster thriving villages and rural centres" and "maintain a well-functioning transport network that benefits everyone". These objectives were three of the four most supported through the LTP4 consultation process.

The scheme will support West Berkshire Council's Local Plan Review 2023 – 2041, specifically DM32 where "development within AWE boundaries will be supported where it sustains the functioning of each of the sites". The West Berkshire Economic Development Strategy comments that AWE draws in employees from local areas and indirectly supports businesses in nearby business and industrial parks. Well-maintained and safe transport infrastructure is critical to supporting these policies.

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

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

The scheme has been developed through ongoing asset management activities undertaken by Wokingham Borough Council, supported by specialist technical input from WSP. Over several years, the embankments at Pingewood Road South have been subject to inspections, monitoring, maintenance interventions, ground investigations and detailed design development. This work has enabled the Council to understand the condition of the asset, assess the risks associated with continued deterioration and develop a preferred remediation solution.

The proposed works are intended to maintain the safe and reliable operation of an existing highway asset and do not involve the creation of new transport infrastructure or changes to the

function of the route. The scheme has been developed within the existing highway corridor and seeks to address a known asset management issue before restrictions become necessary.

The design has also taken account of existing constraints within the corridor, including buried services and drainage infrastructure, to support efficient delivery of the proposed works. At the time of submission, no significant controversial elements associated with the scheme have been identified. The proposed intervention is focused on maintaining network resilience, reducing future maintenance requirements and safeguarding connectivity for highway users.

Engagement with relevant stakeholders, utility providers and affected parties will continue as the scheme progresses towards delivery, once funding is secured.

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

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

The embankments supporting Pingewood Road South have been subject to ongoing inspection and monitoring for several years. During this period, the Council has undertaken a range of maintenance interventions, including carriageway repairs and reconstruction works, to manage the effects of deterioration and maintain the safe operation of the route. Enhanced monitoring, geotechnical assessments and ground investigations have provided a progressively greater understanding of the underlying instability affecting the asset.

Previous maintenance interventions were considered appropriate to address observed defects and manage short-term risks. However, monitoring data has demonstrated that deterioration is continuing and that maintenance activities alone will not provide a sustainable long-term solution.

As part of this established earthworks inspections programme which is in accordance with National Highways, Design Manual for Roads and Bridges, CS 641 - Managing the maintenance of highway geotechnical assets, November 2024, Pingewood Road has features graded 4. In addition Wokingham Borough Council is running a monitoring programme for earthworks of higher risk. Monitoring between April 2019 to September 2023 has shown 112mm settlement and 106mm lateral movement. Following road repairs in winter 2024 the monitoring has recommenced and has shown a further 40mm settlement and 33mm lateral movement.

As a result, the asset has progressed from routine maintenance management to requiring a more significant capital intervention.

- 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 Pingewood Road South embankments have been selected for submission to the Structures Fund due to their deteriorating condition, the increasing risk posed to the highway network and the need for a significant capital intervention to provide a long-term solution. The embankments have been subject to ongoing inspections, monitoring and maintenance activities over several years, with monitoring data confirming continued movement and deterioration affecting the carriageway.

Wokingham Borough Council has undertaken detailed geotechnical investigations, ground investigations and design development to better understand the condition of the asset and identify an appropriate remediation strategy. This work has confirmed that continued maintenance alone

will not address the underlying instability and that a more substantial intervention is required to safeguard the long-term operation of the route.

Detailed design for this scheme has been completed, with a preferred remediation solution identified. The proposed works will address the underlying geotechnical issues, improve asset resilience and reduce the likelihood of future restrictions being required on the route. Without intervention, continued deterioration could lead to increased maintenance requirements, greater costs and potential disruption to highway users and local communities.

The scheme aligns strongly with the objectives of the Structures Fund by enabling proactive intervention before restrictions become necessary. Funding support will allow Wokingham Borough Council to deliver a developed remediation solution, protect an important transport asset and maintain network connectivity, resilience and serviceability for the long term.

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 proposed scheme is not delivered, the condition of the Pingewood Road South embankments is expected to continue deteriorating despite ongoing monitoring and maintenance interventions. Monitoring data and geotechnical investigations have confirmed continued movement of the embankments, with defects propagating into the carriageway. Without a long-term remediation solution, the likelihood of future restrictions on the route is expected to increase as the condition of the asset declines.

Any future restrictions or closure of Pingewood Road South would affect connectivity for residents, businesses, service providers and freight traffic that rely on the route. Traffic (1,509 AADT) would be required to use alternative routes (16 additional km's), increasing pressure on local roads and rural sections of the surrounding highway network that are not intended to accommodate the full volume and composition of traffic currently using Pingewood Road South. This could result in longer journey times, reduced network efficiency, increased congestion at key junctions and other impacts such as severance and impacts on air, noise and the local environment.

Failure to deliver the scheme would also result in continued reliance on reactive maintenance interventions, increasing long-term maintenance liabilities and reducing the effectiveness of investment in the asset. As deterioration progresses, the scale and cost of future intervention may increase, potentially requiring more extensive works to restore the condition of the embankments.

Delivery of the proposed scheme provides an opportunity to proactively address the underlying instability, avoid future restrictions and maintain the safe and reliable operation of an important local transport connection.

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 proposed scheme will help reduce the risk of community severance by maintaining the continued operation of Pingewood Road South and preserving connectivity within the local transport network. The route provides an established connection for residents in rural parts of West Berkshire including Burghfield and Sheffield Bottom (Burghfield parish has a population of 6,115 (2021 census), businesses, service providers and other road users, supporting access to local destinations and the wider highway network including M4 Junction 11.

A future road closure would require users to rely on alternative local and rural roads, resulting in longer (estimated 18km, or 11miles) and less direct journeys. This would increase journey time and fuel cost and potentially reduce the convenience and accessibility of local employment (including AWE). The total volume of impacted traffic is 1,509 (AADT year 2024), comprising 1,154 cars, 278 LGV's and 77 HGV's. Increased traffic on surrounding roads may also place additional pressure on neighbouring communities and affect the efficiency of the wider transport network.

The proposed remediation works will provide a long-term solution to the underlying instability affecting the embankments, helping to maintain the safe and reliable operation of the route. By reducing the likelihood of future restrictions, the scheme will support continued connectivity for local communities and help ensure that access to employment, services, community facilities and other key destinations is maintained.

The scheme therefore helps to minimise the potential for community severance by safeguarding an important local transport connection and maintaining network resilience for all highway users.

- 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.

Pingewood Road South accommodates a range of transport modes on the highway, including private vehicles, commercial vehicles and freight traffic (a total of 1,509 vehicles, AADT year 2024). The route serves a relatively rural community with high car ownership due to the limited provision for public transport and the typical journey distances. The route provides an important local connection within the highway network and supports access to surrounding communities, businesses and services.

Should restrictions or closure become necessary as a result of continued embankment deterioration, traffic would be required to use alternative routes. The impacts of any community severance would vary by mode. Motorised traffic would be affected through longer journey distances, increased travel times and potential delays associated with the use of alternative local and rural routes. Commercial and freight vehicles may experience additional operational impacts due to reduced route directness and increased network pressures.

Non-motorised users may also be affected where alternative routes are less direct or less convenient than existing travel patterns. Maintaining the continued operation of Pingewood Road South therefore helps preserve connectivity for all users, including on the diversion route, and reduces the potential impacts associated with route restrictions or closure.

Traffic survey data collected in 2024 provides information on vehicular movements, comprising 1,154 cars, 278 LGV's and 77 HGV's on an average weekday. The number of cyclists and pedestrians has not been estimated, however the impacts will be focused on the diversion route through towns such as Mortimer and Burghfield Common.

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 assessment indicates that the majority of benefits are driven by journey time savings, which account for 67% of the total economic benefits. These savings reflect improved travel efficiency for users and form the primary justification for the scheme. In addition, vehicle operating cost savings contribute 16% of the overall benefits, arising from reductions in fuel consumption and vehicle wear and tear. The remaining 7% of economic benefits are attributed to wider external impacts. These include decongestion effects on the network, reductions in greenhouse gas emissions, and accident benefits from fewer accidents.

- 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)

██████████

Present Value Benefits (PVB)

██████████████████

Benefit to Cost Ratio (BCR)

██████

- 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 scheme has been developed to detailed design level and a detailed costing has been developed by the design consultants WSP. As set out within the Commercial Case, with detailed investigations, ground investigations, monitoring and detailed design work already completed to identify a preferred remediation solution, the scheme is ready for tendering. This work has established robust evidence base and reduced technical uncertainty, providing confidence in the construction year and profile of scheme costs.

Estimates at this stage are based at 4Q 2025. Future Inflation has been allowed to the construction during the 2026/27 financial year.

20% Risk has been assumed in developing the costs for the scheme through BoQ development. The cost currently assumes an Optimism Bias of 20% (the Stage 3 DfT recommended optimism bias uplifts for Road schemes). This is on the basis of a mature design and cost estimate that is in a position of readiness for contractor procurement and therefore consistent with a Stage 3 – Full Business Case stage of scheme development.

- 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 inputs used in the economic toolkit have been derived from sources including observed data and the Wokingham Strategic Transport Model (WSTM5).

AM (0800-0900) and PM (1700-1800) peak hour traffic flows have been informed by Automatic Traffic Count (ATC) data from Pingewood Road South. This data was collected between 04/11/2024 and 10/11/2024. 24 hour AADT flows were then calculated by applying factors derived from locally observed Wokingham area traffic flow data, to the peak hour flows.

Journey time inputs have been derived from undertaking Shortest Path Search analysis in WSTM5 for both the 'without-diversion' and 'with-diversion' routes. This analysis was completed for both directions on each route for AM peak (08:00–09:00) and PM peak (17:00–18:00) and averaged for input to the economic appraisal (see further in the Economic Toolkit Supporting Evidence

The diversion route has been identified and reflects known routing for the local area. This assumption has been sense-checked against network characteristics and operational experience of the route.

Independent verification of journey times and distances used in the assessment has been undertaken using Google Maps.

Given the advanced stage of scheme design, an optimism bias uplift of 20% has been applied in accordance with TAG guidance (the Stage 3 DfT recommended optimism bias uplifts for Road schemes).

Further information on other specific input values is provided elsewhere within this application (including section 2.5h) for Infrastructure Carbon Emissions). Inputs have been cross-checked against available evidence and reviewed to ensure they provide a robust basis for appraisal.

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.

As a result of the investment proposed in this business case, the scheme will deliver other significant benefits that have not been monetised within the economic toolkit.

By safeguarding a key transport connection, the scheme will improve network resilience and avoid disruption to businesses. This may generate wider economic impacts by maintaining infrastructure that underpins productivity, connectivity and sustainable economic growth. For example, maintaining the accessibility of AWE Burghfield is important to the local economy and has direct benefits for other employers through business continuity and productivity.

Should restrictions or closure become necessary as a result of continued embankment deterioration, traffic would be diverted to use alternative routes, resulting in an increase in the volume of traffic (including heavy goods vehicles) in Grazeley, Mortimer and Burghfield Common.

Investment in the scheme would avoid social impacts on local communities such as a potential increase in noise and deterioration in air quality. The scheme would reduce severance and the risk of accidents, improving road safety and journey quality for non-motorised users, particularly close to local schools on the diversion route (St Mary's Junior School in Mortimer and Grazeley Primary School).

Parts of the diversion route are adjacent to environmental designations such as Wokefield Common Nature Reserve. The scheme will mitigate potential impacts on the historic environment, townscape and landscape by avoiding increases in traffic volume.

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).

Not Applicable

Present Value Costs (PVC) Not Applicable

Present Value Benefits (PVB) Not Applicable

Benefit to Cost Ratio (BCR)

Not Applicable

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.

Wokingham Borough Council has established robust processes and resources for the management, maintenance and improvement of highway assets across its network. The Council adopts a risk-based asset management approach, supported by regular inspections, monitoring programmes, condition assessments and planned maintenance activities to ensure that highway assets remain safe and operational.

This capability is demonstrated through schemes such as Pingewood Road South, where the Council has addressed complex embankment challenges over several years. The site has been subject to enhanced monitoring, targeted maintenance interventions, and detailed geotechnical and ground investigations to understand the nature and extent of deterioration. This evidence base has enabled the development of a preferred remediation solution supported by detailed design.

A further example is the Ridges Embankment stabilisation scheme (circa [REDACTED]) on the B3348. Following a geotechnical event in March 2021, the road was closed and an emergency Principal Inspection (PI) recommended early ground investigation (GI) to inform the understanding of pavement structure, drainage and geology. The findings were used to develop appropriate remedial options. Construction took place between June and November 2022, and the scheme was delivered under the Council's project management.

Recognising the specialist geotechnical nature of such schemes, the Council has engaged WSP to provide technical support through investigation and design, ensuring access to specialist expertise while retaining overall leadership. This approach ensures delivery is underpinned by strong governance, technical rigour and an experienced project team, with additional specialist partners deployed as required.

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.

With detailed investigations, ground investigations, monitoring and detailed design work already completed to identify a preferred remediation solution, the scheme is ready for tendering. This

work has established robust evidence base and reduced technical uncertainty, enabling the scheme to progress efficiently towards delivery.

The remaining stages of the project are expected to include completion of any outstanding approvals, procurement of a construction contractor, detailed construction planning and implementation of the proposed remediation works using the NEC4 contract. WBC has experience of using NEC contract on other projects.

The procurement of the contractor to deliver the scheme will be through an open tender process. The procurement process selected by the Council is known as a "Competitive Procedure with Negotiation" which is a two-stage process including a negotiation phase.

Under Stage 1 tenderers were required to meet pre-qualification requirements to demonstrate that their organisations were:

- Not subject to any of the statutory or discretionary exclusion criteria (as mandated by the Crown Commercial Service)
- Meet the Council's regulatory and financial requirements
- Committed to comply with all requirements of a bona-fide tender.

Under Stage 2 companies remaining will be invited to Tender (Round 1 – Initial Tender) by the Council where they were requested to complete and submit a tender being scored against the following elements: Quality 30%, Price 70%.

Under Stage 2 Final Tenders will be prepared by the tenderers and submitted to the Council for evaluation. We envisage the Final Tender evaluation will be undertaken in mid-2027.

- 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 number of delivery risks have been identified during the development of the Pingewood Road South scheme and have informed the design and project planning process. The principal risk relates to the geotechnical nature of the site and the potential for unforeseen ground conditions during construction. This risk has been mitigated through detailed geotechnical investigations, ground investigations, ongoing monitoring and the development of a preferred remediation solution based on a comprehensive understanding of site conditions.

The presence of existing utilities and drainage infrastructure within the highway corridor also presents a potential delivery risk. These constraints have been considered during scheme development and incorporated into the design process to minimise the likelihood of programme delays during construction.

As with all highway infrastructure projects, there is potential for procurement, cost and programme risks arising from market conditions, contractor availability and inflationary pressures. These risks will be managed through appropriate procurement procedures, early project planning and ongoing programme and cost management throughout delivery.

The scheme benefits from a mature level of development, with investigations, monitoring and design work already completed. This has reduced technical uncertainty and enabled key risks to be identified and addressed at an early stage. Wokingham Borough Council will continue to

monitor and manage delivery risks through project governance arrangements, supported by specialist technical advisers where required, to ensure that the scheme can be delivered within the timescales associated with the Structures Fund programme.

- 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 proposed scheme is located within an existing highway corridor and has been developed to address deterioration affecting the Pingewood Road South embankments. During the investigation and design stages, existing site constraints, including buried utilities and drainage infrastructure, have been identified and considered as part of the scheme development process.

The principal third-party delivery risks relate to the presence of utility infrastructure and any associated requirements for coordination, protection, diversion or access during construction. Early identification of these constraints through site investigations and design development has enabled them to be considered within the proposed remediation solution, helping to reduce the risk of unforeseen issues during delivery.

At present, no third-party risks have been identified that would prevent delivery of the scheme. Wokingham Borough Council will continue to engage with relevant utility providers, landowners and other affected organisations throughout the procurement and construction phases to ensure that any requirements are identified and managed at an appropriate stage of the project.

The scheme benefits from a developed design, completed investigations and a good understanding of site conditions, reducing uncertainty and supporting effective management of third-party interfaces. Ongoing stakeholder engagement and project governance arrangements will help ensure that any third-party requirements are addressed in a timely manner and do not adversely affect delivery of the scheme within the Structures Fund programme.

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	£0	██████████
LA contribution	£0	██████████	£0	£0	██████████

Other contribution	■	■	■	■	■
Total costs	■	■	■	■	■

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

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

The council's budget for actively managing geotechnical assets has been ■ per year, and the largest expenditure on a project has been ■. Our existing maintenance grant is insufficient and large one-off projects cannot be accommodated without displacing other priority asset renewal programmes. This would impact road condition scores. We have a growing structures programme backlog and further delay would increase whole life costs and risk. With the additional requirement of saving money by councils, there isn't the budget for this scheme. The internal WBC capital bid seeking additional funding for the scheme was not successful in 2025/2026FY.

Hence WBC is seeking funding through structures fund.

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.

The asset has historically required numerous interventions to maintain the carriageway alignment, including carriageway reconstruction and kerb replacement undertaken in winter 2023/2024, followed by ground investigation in January 2024 and ongoing inspection. Resurfacing and patch repairs were undertaken to temporarily address defects affecting the highway. The embankment is subject to enhanced monitoring using Permanent Ground Markers (PGMs), with surveys undertaken on a quarterly basis to measure slope movement.

WBC is incurring costs associated with reactive maintenance and anticipates these costs will continue and increase. With evidence of continued ground movement, interventions will only provide temporary benefits, leading to a repeated cycle of maintenance activity. This is potentially disruptive for users and inefficient in terms of whole-life cost.

Without securing investment for a long-term solution, this continued process of monitoring and reactive maintenance is anticipated to continue, with ongoing revenue and capital expenditure to maintain the route in a safe and operational condition.

Before the end of 2029/2030, it is expected that further carriageway resurfacing will be required and there is a risk of embankment failure, leading to emergency works, road closures and significant unplanned costs.

Although the full stabilisation scheme represents a higher upfront capital cost, it provides better long-term value when compared to the cumulative cost of repeated maintenance interventions and the potential cost of major failure. Overall, the scheme is expected to avoid knock on impact to close the road under emergency as well as increased repair costs, and deliver better whole-life value by reducing long-term maintenance liabilities.

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.

A detailed design and groundworks plan has been developed by WBC, which has then been costed with a detailed BoQ. A 20% contingency has subsequently been added to the cost developed in 2025 Q4. The yearly earthwork inspection costs about [REDACTED] and then on top of that is the yearly monitoring costs and the costs of re-surfacing the road every so often. But the biggest higher uncertainty is that the embankment slopes can fail if not remediated, and then emergency works will be required.

- 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.

The scheme has been developed to detailed design level and a detailed costing (BoQ by the QS team) has been developed by the design consultants WSP. A 20% risk allocation is included. Once the funding for this scheme has been secured, the final costs will be confirmed by the contractor, which will include the enabling works, site investigations and construction costs.

Estimates at this stage are based at 4Q 2025. Future Inflation has been allowed to the construction during the 2026/27 financial year.

- 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.

Financial risks considered and contingency allowed for in the detailed BoQ as per standard assumptions for projects of similar nature.

A local contribution will be provided by WBC, to the equivalent of 15% of the total scheme costs.

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?

01 April 2027

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

31 March 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.

Wokingham Borough Council has established a clear and robust structure to provide accountability and an effectual decision-making process for the management of the scheme. Key roles and reporting hierarchies/lines of accountability will be established at the start of the project. Ultimate responsibility for delivery of the scheme rests with Wokingham Borough Council, who will assume an overall project management role on the project. The Project Manager will work closely with the contractors and also form a point of contact for stakeholders. The usual governance procedures will apply to all aspects of the project management, with issues being escalated in accordance with Council protocols as necessary.

- 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?).

The key design and delivery risks have been identified and set out in the pre-construction information pack (PCIP) (see appendix). Project risks are managed through the Council's established governance, risk management and change control processes. The key delivery risks are typical of similar schemes delivered by Wokingham Borough Council. They relate to existing utilities, vibration during construction, issues with existing drainage systems and health and safety of construction staff. Utilities risks relate to buried electricity cables identified during design. A solution to drive sheet piling around the utility has been established. There are residual uncertainties, typical of similar schemes, such as the presence of fibre optic cables. Further surveys by the Principal Contractor will positively identify utility location. Vibration from sheet piling may impact local stakeholders, such as Lagoon Park. A push-in sheet pile system is proposed to minimise vibrations during construction. There is a risk of dysfunctional or blocked drainage increasing the pore water pressures with the embankment core leading to further cracks and settlement. A new drainage system has been designed to avoid future blockages. The project has been designed and will be constructed in a way that risks to the health and safety of all persons engaged in its construction, future use and maintenance and use are eliminated or reduced to an acceptable level. Programme and cost escalation risk is considered low due to the advanced stage of design, readiness for contractor procurement and comprehensive risk identification and allocation of risk within the scheme cost (20%).

- 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 Project Board will be responsible for the strategic management of the project and will have authority to commit resources to the project in accordance with the Council's Constitution. Responsibilities of the Project Board includes: appointing the project manager, agreeing project controls, authorising project start, reviewing progress against the agreed programme, authorising variations to expenditure, managing key risks in the highlighted risk log, authorising project closure. The project manager will be Responsible for delivering the project on behalf of the Project Board. Key responsibilities of the Project Manager include: leading and managing the delivery team, the project manager will have authority and responsibility to run the project on a day-to-day basis, delivering the agreed outputs to the required level of quality and within the specified constraints of time, cost, resources and risk; preparing project information including the Project Plan, the Project

Manager will also identify and evaluate risks, determines and manages actions, and maintains the risk log. the role also includes managing and controlling changes to the project scope, requirements, personnel etc. The Project Manager will ensure that the project is properly resourced, with sufficient, properly skilled support, monitoring and reporting progress against the agreed programme, budget and other performance metrics, updating the Project Board at the monthly meetings.

- 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.

Not applicable as all works are within LA highway boundary

- 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 climate impacts the Wokingham area has experienced include high intensity summer flooding causing surface water flooding (2007), prolonged rainfall and saturated ground (2014) and recurring heatwaves (2018, 2022). Climate adaptation has been integrated into the design process to support the long-term resilience of the highway embankment. A screening of climate hazards, using the latest UK Climate Projections (UKCP18), has identified that the scheme is subject to a range of predominantly medium to high climate related impacts. High winds, storms and extreme temperatures present as high vulnerability under current and future climate change. Extreme heat and wet and dry conditions due to climate change will exacerbate the embankment instability caused by seasonal shrink-swell behaviour in clay due to soil moisture changes. Key risks include slope failure, differential settlement, water ingress and continued carriageway deformation. The scheme comprises embankment stabilisation using sheet pile walls and full-depth reconstruction (including earthworks and drainage) of the affected carriageway. These are addressed through established standards, including, Eurocode 7 (BS EN 1997) for geotechnical design, DRMB CD 601 (Design of Earthworks) for highways and construction and material requirements, typically defined through MCHQ Series 600 (Earthworks). Drainage design will incorporate the appropriate climate change allowance and include discharge of road surface water into local ditches and watercourses, limiting unintended hydraulic impacts and reducing risk of further deterioration under more frequent storm events. Overall, the scheme will improve asset resilience, maintain network performance and reduce the risk of climate-related deterioration over the long-term.

- 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 through reducing vehicle miles).

In order to reach Wokingham Borough Council's goal for carbon neutrality by 2030, a PAS2080:2023 compliant Carbon Management Plan will be developed to embed carbon management throughout the scheme lifecycle. The design process to date reflects this approach to reduce carbon emissions in the transport sector. The options appraisal considered alternatives that would have required greater tree removal, which were discounted in favour of the current design that minimises vegetation loss as far as practicable. Design development has also included the removal of certain elements, such as tie rods between sheet piles, helping to avoid the embodied carbon associated with additional steel. Where

appropriate, the design has prioritised repair and remediation over replacement to minimise embodied carbon. This includes stabilising and remediating the earthworks and improving drainage, rather than importing new material. An initial whole-life carbon assessment, undertaken using WSP's infrastructure carbon assessment tool, estimates total whole-life emissions at 1064 tCO₂e. A stakeholder carbon workshop will identify further emissions reduction opportunities across design, materials and procurement, drawing on Wokingham Major Highways Programme best practice, including early contractor involvement. The PAS 2080:2023 Carbon Reduction Hierarchy will be applied to prioritise carbon avoidance before lower-carbon materials and efficient construction methods, supported by an evidence-based reduction target and clear lifecycle responsibilities.

- 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.

The affected utilities along this section are Open Reach Gigaclear, SGN 11Kv electricity cable, and BT telecommunications posts. The utility companies have been contacted, and the necessary approvals have been taken for these detailed designs.

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 Impact Assessment (EqIA) for the Pingewood Road South Embankment Stabilisation Scheme considered the impacts of the proposed works during construction, the consequences of not undertaking the works, and the long-term effects once completed. The assessment drew on highway inspections, geotechnical investigations, traffic data, demographic information, stakeholder feedback, and the Council's equality framework to determine whether any groups with protected characteristics would be disproportionately affected.

The assessment identified residents, road users, nearby businesses and landowners, transport operators, maintenance personnel and construction workers as those most likely to be affected by the scheme. Protected characteristic groups considered included age, disability, gender reassignment, marriage and civil partnership, pregnancy and maternity, religion or belief, race, sex and sexual orientation, together with armed forces communities, care experienced people and those experiencing socio-economic disadvantage.

No negative or disproportionate impacts were identified for any protected characteristic group. Temporary impacts during construction, such as traffic management measures, diversions, restricted access, noise and construction activity, were considered short term and applicable to all users. Particular consideration was given to disabled people, with mitigation including the provision of safe pedestrian and mobility routes, clear signage and information, and compliance with accessibility requirements. Standard construction controls and safe access arrangements will also minimise inconvenience for other groups.

The positive impact identified related to people experiencing socio-economic disadvantage, as maintaining a resilient and accessible road network supports continued access to employment, education, healthcare and community facilities while reducing the risk of future disruption. Consequently, no full EqIA was considered necessary.

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.

[Funding for road maintenance works](#)

3.3 Declarations

Senior Responsible Owner declaration

As Senior Responsible Owner for [Pingewood Road South], I hereby submit this request for approval to DfT on behalf of [Wokingham Borough Council] and confirm that I have the necessary authority to do so.

I confirm that [Wokingham 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: Christopher Easton

b) Signed: 

c) Date: 31 July 2026

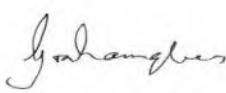
d) Email: chris.easton@wokingham.gov.uk

Section 151 Officer declaration

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

f) Signed: 

g) Date: 03 August 2026

h) Email: Graham.Ebers@wokingham.gov.uk