North Yorkshire County Council

Business and Environmental Services

Executive Members

25 March 2022

Marage Path and Whitby Swing Bridge

Report of the Assistant Director – Highways and Transportation

1.0 Purpose Of Report

1.1 To seek authorisation from the Corporate Director, Business and Environmental Services (BES), in consultation with County Councillor Don Mackenzie, Executive Member for access to create a reserve from the BES 2021/22 revenue underspend for £580k to specifically fund the following;

- Whitby Swing Bridge Painting and Maintenance (£380k)
- Marage Path retaining wall reconstruction (£200k)

2.0 Background

2.1 Whitby Swing bridge was built in 1909 and mechanised in 1983. An agreement between North Yorkshire (NYCC) and Scarborough Borough Council (SBC) in 2012 placed the responsibility for the bridge maintenance with NYCC and responsibility for the staffing and operation of the bridge with SBC. NYCC has a maintenance contactor which carries out services every three months and provides support during breakdowns. There is an annual £63.8k revenue budget to cover servicing, breakdowns and minor works to the bridge.

2.2 For the last few years, during extended periods of very warm weather, the bridge expands and then seizes in the shut position, normally late afternoon. Until the bridge cools down and contracts, the bridge will remain in the closed position and prevent some vessels from leaving or entering the harbour. A proposed resurfacing scheme using a lighter coloured surfacing material has been selected as the most cost effective solution as it will keep the bridge at a lower temperature during periods of warm weather.

2.3 Last summer (2021) two access covers and frames were removed and temporarily plated over, the covers were rocking (creating noise overnight) and allowing water to penetrate into the structure and was causing corrosion to steel members off the bridge below. As part of the proposed work to resurface the bridge new covers and frames which have already been fabricated will be installed following steelwork repairs and painting to the areas.

2.4 Officers have spent a lot of time reviewing the options available for preventing the bridge from seizing and a lighter coloured surface is the preferred option. Specialist suppliers have been engaged and some laboratory research carried out looking at performance of different colours. It is proposed to carry out the surfacing work during the spring/early summer 2022 before the school holidays.

2.5 The bridge was last painted in 2012 and due to the marine environment the bridge is in need of further maintenance - painting is required in some areas and a further top coat to the whole structure needs to be applied to provide further protection. It is intended that work will be carried out in Spring/Summer 2023.

2.6 The Marage Path retaining wall is a 100m long wall supporting a narrow section of Public Right of Way path above Cod Beck on a route connecting Stammergate with Marage Road. During 2021 there was an issue with subsidence of the path which was linked to poor condition of the wall. There is an ancient monument sited adjacent to the site, making access for large plant difficult.

2.7 Following surveys a temporary repair was carried out in December 2021 on the basis that full repair would be carried out in the near future. A scheme to rebuild the wall using stone is considered the most appropriate solution and has an expected cost of £200k. Subject to approval it is expected the works would be carried out during the Summer 2022.

3.0 Finance

3.1 The costs of the works are expected to be:

- Whitby Swing Bridge – total £380k
  - £150k Painting works
  - £70k access, welfare site management
  - £50k for repairs including replacement of all mesh.
  - £30k risk allowance
  - £80k Surfacing work
- Marage Path – total £200k – Full rebuild of the retaining wall along the beck

3.2 It is suggested that the total cost of £580k is funded from the forecast BES Directorate underspend in 21/22 and it is proposed that a reserve is created for this purpose. The funding within such a reserve would only be able to be used for Whitby Swing Bridge and Marage Path works with any amounts underspent being returned to Corporate funds once those works are complete.

4.0 Equalities

4.1 An equality impact assessment (EIA) screening process has been undertaken and a decision made that an EIA is not required for either of the schemes. The reason is that these are two requests for additional funding to complete schemes that will improve the highway infrastructure. There is no impact on people with protected characteristics. See Appendix 1.

5.0 Legal

5.1 Establishing responsibility for bridge maintenance can on occasion be complex and reliant of historical events which can become lost in the mists of time. The current Whitby Swing Bridge was built in 1909 under a commission by the then local highway authority Whitby Urban District Council. It was built to carry what was then the alignment of the A171 through Whitby. As such it seems clear it was constructed as part of the highway maintainable at the public expense by the then relevant highway authority and as such is maintainable at the public expense.

5.2 That the County Council accepts the above is reflected in the terms of the 2012 agreement referred to at para 2.1 above in which the County Council's obligations included a requirement *"….to maintain and repair the Bridge including the opening*

and closing mechanism…". Additionally the County Council has historically awarded contracts for the maintenance of the bridge.

5.3 Further section 328(2) states :-

"Where a highway passes over a bridge or through a tunnel, that bridge or tunnel is to be taken for the purposes of this Act to be a part of the highway."

6.0 Climate Change

6.1 Climate change impact assessment forms have been completed for both schemes. No additional recommendations are required. See Appendix 2 for Marage Path and Appendix 3 for Whitby Swing Bridge.

7.0 Recommendation(S)

7.1 It is recommended that the Corporate Director, Business and Environmental Services (BES), in consultation with County Councillor Don Mackenzie, Executive Member for Access:

i. approves the creation of a reserve noted in section 3.0 for funding of the Whitby Swing bridge and Marage Path Works described in this report

ii. approves the schemes as described in section 2.1 to allow painting and surfacing to be carried out on Whitby Swing bridge and the reconstruction of the Marage Path retaining wall.

BARRIE MASON
Assistant Direct – Highways and Transportation

Author of Report: Philip Richardson, Bridges Managers

Background Reports: None

Initial equality impact assessment screening form

This form records an equality screening process to determine the relevance of equality to a proposal, and a decision whether or not a full EIA would be appropriate or proportionate.

Directorate	BES
Service area	Highways and Transportation
Proposal being screened	Whitby swing bridge surfacing (lighter colour to reduce heat absorption) and painting Marage path wall, reconstruction (footpath)
Officer(s) carrying out screening	Phil Richardson
What are you proposing to do?	Whitby swing bridge - Resurface with a surfacing system to reduce heat absorption, could be a grey or red colour for example. - Painting, repaint the bridge in the existing colour Marage Path - Take down and rebuild stone wall
Why are you proposing this? What are the desired outcomes?	Whitby - Bridge seizes when it expands (due to heat) and can't be opened, this prevents some boats entering and leaving the harbour - Painting, to treat areas of corrosion and ensure the bridge remains in good condition Marage Path - Temporary repair done in 2021, requires permanent repair due as the wall is in very poor condition
Does the proposal involve a significant commitment or removal of resources? Please give details.	**£380k allocated for Whitby Swing bridge** **£200k allocated for Marage Path**

Impact on people with any of the following protected characteristics as defined by the Equality Act 2010, or NYCC's additional agreed characteristics

As part of this assessment, please consider the following questions:

- To what extent is this service used by particular groups of people with protected characteristics?
- Does the proposal relate to functions that previous consultation has identified as important?
- Do different groups have different needs or experiences in the area the proposal relates to?

If for any characteristic it is considered that there is likely to be an adverse impact or you have ticked 'Don't know/no info available', then a full EIA should be carried out where this is proportionate. You are advised to speak to your Equality rep for advice if you are in any doubt.

APPENDIX 1

Protected characteristic	**Potential for adverse impact**		**Don't know/No info available**
	Yes	**No**	
Age		X	
Disability		X	
Sex		x	
Race		X	
Sexual orientation		X	
Gender reassignment		X	
Religion or belief		X	
Pregnancy or maternity		X	
Marriage or civil partnership		X	
NYCC additional characteristics			
People in rural areas		X	
People on a low income		X	
Carer (unpaid family or friend)		X	
Does the proposal relate to an area where there are known inequalities/probable impacts (e.g. disabled people's access to public transport)? Please give details.	No		
Will the proposal have a significant effect on how other organisations operate? (e.g. partners, funding criteria, etc.). Do any of these organisations support people with protected characteristics? Please explain why you have reached this conclusion.	**No**		
Decision (Please tick one option)	EIA not relevant or proportionate:	✓	Continue to full EIA:	
Reason for decision	These are two requests for additional funding to complete schemes that will improve the highway infrastructure. There is no impact on people with protected characteristics		
Signed (Assistant Director or equivalent)	Barrie Mason		
Date	14/03/2022		

Climate change impact assessment

The purpose of this assessment is to help us understand the likely impacts of our decisions on the environment of North Yorkshire and on our aspiration to achieve net carbon neutrality by 2030, or as close to that date as possible. The intention is to mitigate negative effects and identify projects which will have positive effects.

This document should be completed in consultation with the supporting guidance. The final document will be published as part of the decision making process and should be written in Plain English.

If you have any additional queries which are not covered by the guidance please email climatechange@northyorks.gov.uk

Please note: You may not need to undertake this assessment if your proposal will be subject to any of the following:
Planning Permission
Environmental Impact Assessment
Strategic Environmental Assessment

However, you will still need to summarise your findings in in the summary section of the form below.

Please contact climatechange@northyorks.gov.uk for advice.

Title of proposal	**Marage Path Retaining Wall – Rebuild**
Brief description of proposal	**Full rebuild of 89m long, 1.75m(av) high retaining wall that carries a PROW along the edge of the Cod Beck in Thirsk**
Directorate	**BES**
Service area	**Bridges & Design Services, on behalf of PROW**
Lead officer	**Philp Richardson**
Names and roles of other people involved in carrying out the impact assessment	**Josh Calvert Assistant Engineer**
Date impact assessment started	**10/03/2022**

Options appraisal

Were any other options considered in trying to achieve the aim of this project? If so, please give brief details and explain why alternative options were not progressed.

Sheet Pile wall was consider, but impact of getting the piles to site would have had a greater carbon footprint and potential damaged a heritage site behind the wall.

Repairing sections would not have been effective as the whole wall is beyond repair

What impact will this proposal have on council budgets? Will it be cost neutral, have increased cost or reduce costs?

Please explain briefly why this will be the result, detailing estimated savings or costs where this is possible.

This is a one off cost to rebuild a publicly used wall. The cost of not repairing could lead to a wall collapse into the river, resulting in safety issues and potential cost implications in the form of fines from the EA. Also, a gas pipeline runs behind the wall and damage to this through collapse could lead to high cost implications to repair, increased damage to public area and pollution event of the environment

How will this proposal impact on the environment? **N.B. There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.**		**Positive impact** (Place a X in the box below where relevant)	**No impact** (Place a X in the box below where relevant)	**Negative impact** (Place a X in the box below where relevant)	**Explain why will it have this effect and over what timescale?** **Where possible/relevant please include:** • **Changes over and above business as usual** • **Evidence or measurement of effect** • **Figures for CO_2e** • **Links to relevant documents**	**Explain how you plan to mitigate any negative impacts.**	**Explain how you plan to improve any positive outcomes as far as possible.**
Minimise **greenhouse gas emissions** e.g. reducing emissions from travel, increasing energy efficiencies etc.	Emissions from travel		**X**		*All action by the contractor will be Business as Usual for a contractor*		
	Emissions from construction		**X**		*All action by the contractor will be Business as Usual for a contractor*		
	Emissions from running of buildings		**X**		*N/A*		
	Other						
Minimise **waste:** Reduce, reuse, recycle and compost e.g. reducing use of single use plastic		X			*As much stone as possible will be reused to rebuild the wall. Unusable stone will be recycled elsewhere. Additional Stone will be sourced from stocks at various depots.*		
Reduce **water** consumption			X		*N/A*		
Minimise **pollution** (including air, land, water, light and noise)			X		*The contractor will be legally and contractually obliged to avoid pollution events.*		

How will this proposal impact on the environment? **N.B. There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.**	**Positive impact** (Place a X in the box below where relevant)	**No impact** (Place a X in the box below where relevant)	**Negative impact** (Place a X in the box below where relevant)	**Explain why will it have this effect and over what timescale?** **Where possible/relevant please include:** • **Changes over and above business as usual** • **Evidence or measurement of effect** • **Figures for CO_2e** • **Links to relevant documents**	**Explain how you plan to mitigate any negative impacts.**	**Explain how you plan to improve any positive outcomes as far as possible.**
				There will be no long term effects		
Ensure **resilience** to the effects of climate change e.g. reducing flood risk, mitigating effects of drier, hotter summers		X		*Wall will be rebuilt making the structure itself no longer at risk of collapse during a flood event. No change to river width, no impact to flooding.*		
Enhance **conservation** and wildlife		X		*Wall being rebuilt outside of salmon spawning and lamprey breeding times*		
Safeguard the distinctive characteristics, features and special qualities of **North Yorkshire's landscape**	X			*Wall being rebuilt using existing stone and locally sourced stone of similar quality that we have in stock. Parapet will be replaced with a less rotten replacement*		
Other (please state below)						

Are there any recognised good practice environmental standards in relation to this proposal? If so, please detail how this proposal meets those standards.

Biosecurity – Signal Crayfish present so strict Biodiversity practice will be in place to prevent the spread of disease to native crayfish populations.

Wall being rebuilt outside of salmon spawning and lamprey breeding times to reduce impact of dewatering the area.

Summary Summarise the findings of your impact assessment, including impacts, the recommendation in relation to addressing impacts, including any legal advice, and next steps. This summary should be used as part of the report to the decision maker.

This scheme will have little to no impact on the environment. Scheme is preserving an existing retaining wall without altering the local environmental conditions. Reuse of stone where possible is the biggest asset to this assessment, and using of existing stored stone to help the rebuild further contributes to preserving the North Yorkshire Aesthetic.

Sign off section

This climate change impact assessment was completed by:

Name	**Josh Calvert**
Job title	**Assistant Engineer**
Service area	**Bridges & Design Services**
Directorate	**BES**
Signature	*J Calvert*
Completion date	**10/03/2022**

Authorised by relevant Assistant Director (signature): B Mason

Date: 14 03 22

Climate change impact assessment

The purpose of this assessment is to help us understand the likely impacts of our decisions on the environment of North Yorkshire and on our aspiration to achieve net carbon neutrality by 2030, or as close to that date as possible. The intention is to mitigate negative effects and identify projects which will have positive effects.

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Please note: You may not need to undertake this assessment if your proposal will be subject to any of the following:
Planning Permission
Environmental Impact Assessment
Strategic Environmental Assessment

However, you will still need to summarise your findings in in the summary section of the form below.

Please contact climatechange@northyorks.gov.uk for advice.

Title of proposal	Whitby Swing bridge surfacing and painting
Brief description of proposal	Remove existing road surface and replace with a lighter coloured material and painting of the existing steel substructure due to corrosion and weathering.
Directorate	**BES**
Service area	**Bridges**
Lead officer	**Philip Richardson**
Names and roles of other people involved in carrying out the impact assessment	**Ben Savage – Assistant Bridges Engineer**
Date impact assessment started	**10/03/2022**

Options appraisal

Were any other options considered in trying to achieve the aim of this project? If so, please give brief details and explain why alternative options were not progressed.

Road surfacing - Analysis of various coloured road surfaces were carried out by Tarmac to measure heat absorption and temperature transmission through different mixes of asphalt materials. The testing showed a lighter coloured materials had a slightly reduced heat absorption and as a result would reduce the transmission into the structure.

Painting – No other options are available, marine environments are harsh for painted structures and regular painting is required to protect the steelwork from corrosion.

What impact will this proposal have on council budgets? Will it be cost neutral, have increased cost or reduce costs?

Please explain briefly why this will be the result, detailing estimated savings or costs where this is possible.

The coloured buff surfacing would have a small increase in cost to procure and lay but overall there would be a reduction in cost as the proposals aim is to try and reduce the technical malfunctions that occur on the bridge, which would result in less time and travel during callouts when a breakdown occurs and it would also reduce the impact on travel for the local public who use the bridge as the diversion around is 1.8 miles.

Regular painting will reduce the likelihood of having to carry out full blast cleaning of the structure or corrosion related structural repairs in future years which would require a large budget to complete.

How will this proposal impact on the environment? **N.B. There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.**		**Positive impact** (Place a X in the box below where relevant)	**No impact** (Place a X in the box below where relevant)	**Negative impact** (Place a X in the box below where relevant)	**Explain why will it have this effect and over what timescale?** **Where possible/relevant please include:** • **Changes over and above business as usual** • **Evidence or measurement of effect** • **Figures for CO_2e** • **Links to relevant documents**	**Explain how you plan to mitigate any negative impacts.**	**Explain how you plan to improve any positive outcomes as far as possible.**
Minimise **greenhouse gas emissions** e.g. reducing emissions from travel, increasing energy efficiencies etc.	Emissions from travel	X			Reduce callouts during malfunctions, reduce public travel due to not being able to use the bridge. An average family sized car would have an approx. increase of 411grams of CO2 emissions having to drive the diversion during breakdowns. A callout for the bridges maintenance contractor would result in an increase of 8800grams of CO2 per trip		Structure maintenance to reduce breakdowns.
	Emissions from construction		X		No reduction from construction works will be possible		
	Emissions from running of buildings		X		N/A		

How will this proposal impact on the environment? **N.B. There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.**	**Positive impact** (Place a X in the box below where relevant)	**No impact** (Place a X in the box below where relevant)	**Negative impact** (Place a X in the box below where relevant)	**Explain why will it have this effect and over what timescale?** **Where possible/relevant please include:** • **Changes over and above business as usual** • **Evidence or measurement of effect** • **Figures for CO_2e** • **Links to relevant documents**	**Explain how you plan to mitigate any negative impacts.**	**Explain how you plan to improve any positive outcomes as far as possible.**
Other		X		N/A		
Minimise **waste:** Reduce, reuse, recycle and compost e.g. reducing use of single use plastic		X		Road surfacing - Road planings will be appropriately recycled.		
Reduce **water** consumption		X		N/A		
Minimise **pollution** (including air, land, water, light and noise)		X		Painting - Pollution to the watercourse will be controlled during localised shot blasting and painting.		
Ensure **resilience** to the effects of climate change e.g. reducing flood risk, mitigating effects of drier, hotter summers	X			Long term effect on the structure to reduce heat absorption through road surface materials will be positive due to less breakdowns and less stress on the structure	N/A	Maintain the surfacing
Enhance **conservation** and wildlife		X		N/A		

How will this proposal impact on the environment? **N.B. There may be short term negative impact and longer term positive impact. Please include all potential impacts over the lifetime of a project and provide an explanation.**	**Positive impact** (Place a X in the box below where relevant)	**No impact** (Place a X in the box below where relevant)	**Negative impact** (Place a X in the box below where relevant)	**Explain why will it have this effect and over what timescale?** **Where possible/relevant please include:** • **Changes over and above business as usual** • **Evidence or measurement of effect** • **Figures for CO_2e** • **Links to relevant documents**	**Explain how you plan to mitigate any negative impacts.**	**Explain how you plan to improve any positive outcomes as far as possible.**
Safeguard the distinctive characteristics, features and special qualities of **North Yorkshire's landscape**	X			Painting – Ensures the distinctive characteristics of the swing bridge enhances North Yorkshires landscape appeal to tourists.	N/A	Maintain structure in future.
Other (please state below)						

Are there any recognised good practice environmental standards in relation to this proposal? If so, please detail how this proposal meets those standards.
Road surfacing – All planings are to be sent to an approved recycling plant using appropriate transport providers. Painting - Pollution prevention during shot blasting and painting

Summary Summarise the findings of your impact assessment, including impacts, the recommendation in relation to addressing impacts, including any legal advice, and next steps. This summary should be used as part of the report to the decision maker.

The lighter coloured road surface aim is to reduce the heat absorption into the structure, on the hottest summer periods this causes the bridge to expand to the point the bridge seize and the bridge can't swing until it has cooled down. This would overall reduce the impact on the local public, local business, including fishing and tourism businesses who rely on the swing bridge to operate.

The painting of the bridge is to ensure that the steelwork remains in good condition and the bridge can enhance the surroundings it is in.

Sign off section

This climate change impact assessment was completed by:

Name	**Ben Savage**
Job title	**Assistant Bridges Engineer**
Service area	**Bridges and Design Services**
Directorate	**BES**
Signature	*Ben Savage*
Completion date	**10/03/2022**

Authorised by relevant Assistant Director (signature): Barrie Mason

Date: 14 03 22