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**Business Case Approval Record for
Harbourside Public Realm:
Pedestrianisation of Whitby
Swingbridge**

Summary Document Submission Date

24 March 2022

DOCUMENT CONTROL

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DOCUMENT APPROVALS

	Date
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Capital Working Group Assessment	10/03/2022
Regeneration Programme Delivery Board Decision	14/03/2022
AGREED: 1. The Board accepts the Harbourside Public Realm: Pedestrianisation of Whitby Swingbridge Business Case with the condition that: i) That the impact on SBC parking revenue is considered & included in the wider financial implications section ii) Subsidy control advice is received 2. The Board recommends that the council approves the submission on the Summary Document for the Harbourside Public Realm: Pedestrianisation of Whitby Swingbridge Business Case	
Cabinet acceptance of RPDB recommendations and permission to submit Summary Documents	15/02/2022
Or ICM acceptance of RPDB recommendations and permission to submit Summary Documents	
Town Deal Board endorsement of Business Case	17/02/2022

SUBMISSION OF SUMMARY DOCUMENT

	Date
Town Deal Board Authorisation	Barry Harland
	Chair
SBC Authorisation	Nick Edwards
	Section 151 officer
Date of Submission	24/03/2022

Item 4

Whitby Town Deal Board - 17 Feb 2022

Harbourside Public Realm: Pedestrianisation of Whitby Swingbridge Business Case summary report

1 PURPOSE OF THE REPORT

- 1.1 This report presents the Business Case for the Whitby Harbourside Public Realm: Pedestrianisation of Whitby Swingbridge (WHPRP) project to the Whitby Town Deal Board. The Board should consider whether to support the acceptance of the Business Case and recommend the submission of the Summary Document to the Department of Levelling Up, Housing and Communities (DLUHC).

2 BACKGROUND

- 2.1 The WHPRP project is been developed by North Yorkshire County Council using their framework partners WSP for delivery.
- 2.2 NYCC were awarded funding of £400k from the Towns Fund accelerated funding pot to enable them to carry out a trial scheme of the 'pedestrianisation' of Whitby Swingbridge through a Temporary Traffic Regulation Order (TRO) between April 2021 until October 2021. The TRO saw Whitby swingbridge closed to vehicular traffic initially between 10.30am and 4pm on weekends and Bank Holidays before moving to closure 7 days per week (except for buses and emergency vehicles) from the 21st August .
- 2.3 NYCC's Business and Environmental Services Corporate Director approved the recommendation at his meeting on the 21 January 2022 to allow the formal pedestrianisation of the Swingbridge to continue provided the additional funding via the Whitby Town Deal Board could be secured to improve the streetscape and deal with the traffic issues identified during the experiment.
- 2.4 NYCC are now seeking £2.3m from the Whitby Town Deal to improve the public realm and landscape around the Swingbridge area allowing the closure of the bridge to be enacted more easily with permanent signage in place. The scheme will also seek to improve the junction at Spital Bridge with the A171.

3 BUSINESS CASE SUMMARY

- 3.1 The Business Case has been produced by NYCCs framework partners WSP. The case presented demonstrates a deliverable scheme.

Strategic Case

- 3.2 The Strategic Case evidences issues and challenges within Whitby in relation to the Swingbridge and the volume of pedestrianisation traffic crossing the bridge conflicting with vehicular movement, particularly in the busy summer season and highlights why this current situation must change. This causes significant safety concerns.
- 3.3 There is a substantial list of the local, regional and national policies the scheme aligns with but further work is required to explain how the project contributes to these.
- 3.4 The case identifies numerous objectives and outputs, these need to be quantified before completion of the final Monitoring & Evaluation plan.

Economic Case

- 3.5 The economic case considers four options with the preferred option the Do Something (1): Full public realm works (see provided landscape design attached as an appendix to the business case) & a partial closure of the Swing Bridge on all days between May and October (10:00-16:30).
- 3.6 The Value for Money assessment on the options has been carried out using the Department for Transport's (DfT) Transport Analysis Guidance. Narrative has been provided to explain how the Present Value Costs have been calculated.
- 3.7 The anticipated benefits and the assumptions used for the calculation of these have been included within the text of the economic case. The calculations are easy to follow. The preferred option has a Benefit to Cost Ratio (BCR) of 5.81 when including the DfT uplift calculations.
- 3.8 Further quantifiable benefits should be included to make the economic case even stronger. An environmental impact appraisal has been undertaken.

Financial Case

- 3.9 The financial case presents a total project cost for the preferred option of £2.316m, the allocation from the Towns Fund is £2.3m so this presents a slight funding shortfall of £0.016m. The shortfall is not considered significant and will be addressed at RIBA Stage 3.
- 3.10 A high level breakdown of project costs is presented within the financial case with a Bill of Quantities for the construction works attached as an appendix to the business case. All key costs including risk and inflation appear to be accounted for with narrative provided for the assumptions.
- 3.11 Significant additional maintenance costs are not expected and will be the responsibility of NYCC falling under their routine maintenance schedule / budget.

Commercial Case

- 3.13 The Commercial Case shows the scheme is deliverable and the programme appears reasonable with a completion date of April 2024, well before the TF programme end date of March 2026. It will be delivered in collaboration with framework partners WSP who will continue to support the design and preparation phases. Procurement for the construction phase of the project will be undertaken by the procurement unit and carried out in line with NYCCs Procurement and Contract Management Strategy which is aligned to SBCs policies.

- 3.14 NYCCs Strategy stipulates that all tenders are placed through the YorTender portal and so a Framework will not be used. NYCCs preferred form of contract for this project is the NEC3 ECC Option B: Priced contract with a Bill of Quantities because it will achieve the primary objectives in terms of the cost and programme.

Management Case

- 3.15 Responsibility for the delivery of the project lies with the Business and Environmental Services (BES) directorate of North Yorkshire County Council and in particular with the Highways & Transportation business unit whose team will project manage the scheme. The project will be managed to reflect the project governance requirements of NYCC and the towns fund programme assurance framework established by SBC.
- 3.16 NYCC utilise a corporate risk register system for the monitoring of its capital projects. The projects risk register is attached as an appendix to the Business Case.
- 3.17 The Strategic Case references the engagement to date during the experimental order and mentions it will continue through scheme development. It is a requirement of the Towns Fund to have a continued engagement plan.
- 3.18 A Public Sector Equalities Duty statement is required for the project.

4 RECOMMENDATIONS

- 4.1 The Board is requested to consider the Business Case for the Harbourside Public Realm: Pedestrianisation of Whitby Swingbridge project and is recommended to:
1. endorse the Business Case for the Harbourside Public Realm: Pedestrianisation of Whitby Swingbridge project subject to the project sponsor addressing the following;
 - Wider implications and impacts on any loss of car parking spaces that may arise from this scheme
 - Confirmation that this project complies with Subsidy control regulations
 - the relationship with other Towns Fund projects and that the traffic impact is considered
 - The outputs are quantified for the Monitoring & Evaluation Plan
 2. approve the preparation of the project Summary Document and final Monitoring & Evaluation Plan
 3. agree that the Chair signs the Summary Document on behalf of the Whitby Town Deal Board
 4. support the submission of Summary Document to the Department for Levelling Up, Housing & Communities

5 ADDITIONAL INFORMATION

- 5.1 Harbourside Public Realm: Pedestrianisation of Whitby Swingbridge Business Case

5.2 Harbourside Public Realm: Pedestrianisation of Whitby Swingbridge Design Report

Whitby Swingbridge – Business Case

ARUP



FUTUREGOV

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 Grant Thornton



QUALITY CONTROL

Issue/revision	First issue	Revision 1	Revision 2	Revision 3
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Prepared by	C Davies	S Best	S Best	S Best
Signature				
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Signature				
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Signature				
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INTRODUCTION

INTRODUCTION

The Towns Fund is a government-funded £3.6 billion opportunity for towns throughout England to bid for funds to improve skills, digital and transport connectivity, create new jobs, raise aspiration and revitalise the economic prospects of the area. Economic growth is a key part of the deal and each town can suggest how it thinks this could be achieved. A total of 101 towns were invited to bid for up to £25m. In March 2021 the government announced that 45 of these areas were successful in their bids with Whitby being allocated £17.1m.

The Towns Fund operates as a two-stage process:

- Stage 1 – Submission of Town Investment Plans for each respective town
- Stage 2 – Business Case Development of the shortlisted Priority Projects

The Whitby Town Investment Plan (October 2020) provides an evidence base of the challenges in the area and the Strategy to address these via the Whitby Town Deal. The following Objectives have been set:

1. Establish a harbour which embodies traditional and 21st Century maritime culture
2. Build 'Beacons of Excellence' across the town in skills, arts and wellbeing
3. Host world class business and cutting edge learning activities
4. Create a walkable town connecting all that is on offer in Whitby
5. Enhance our links to the coast
6. Balance better activity across the town
7. Provide opportunities to live lighter in our environment
8. Have well established and convenient links to the rest of the world

The Whitby Town Investment Plan (TIP) has been developed by wide reaching and extensive public and stakeholder consultation and engagement, and guided by the Whitby Town Deal Board which consists of a diverse representation of stakeholder expertise from the public, private and community sectors. The following summarises the 6 priority projects that were shortlisted for progression to Stage 2 within the reduced funding allocation for Whitby that aim to stimulate growth in the area and achieve the Objectives:

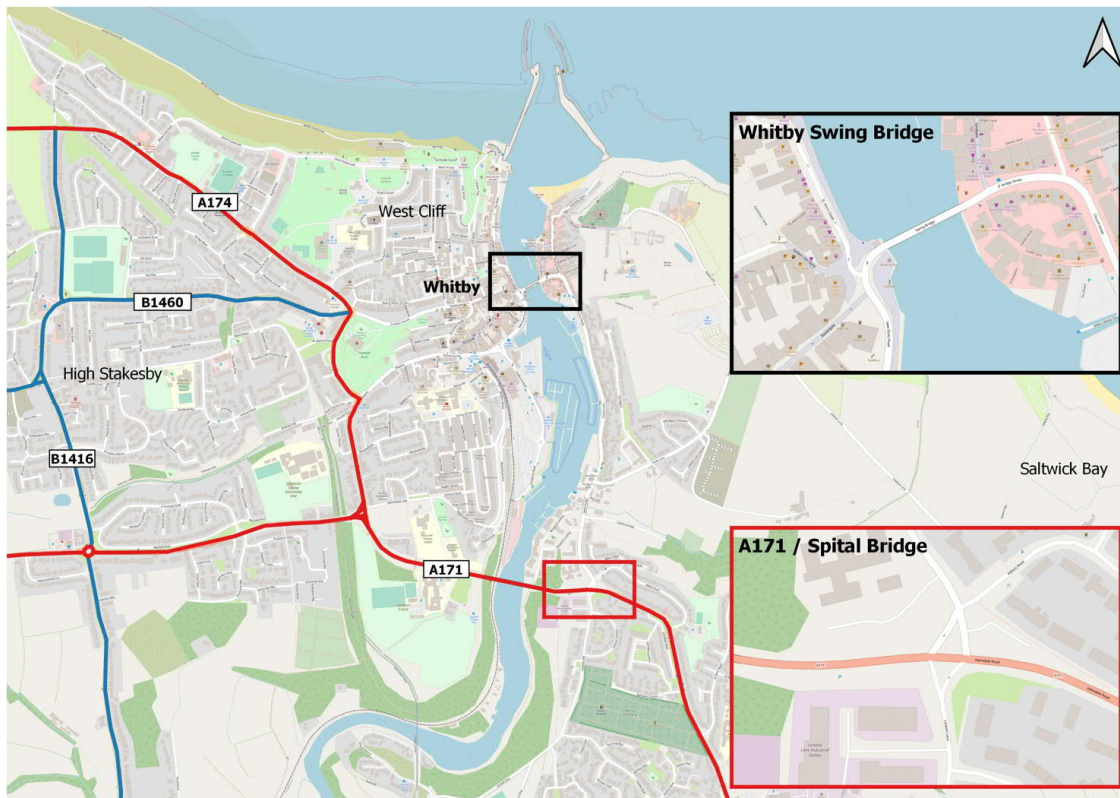
1. Whitby Maritime Skills Academy
2. **Harbourside Public Realm: Pedestrianisation of Whitby Bridge**
3. Free Wi-Fi Zone and Wayfinding
4. Broomfield Farm Carbon Neutral Village
5. Old Town Hall and Market Place
6. Eastside and Calla Beck Wellbeing Centre

This Business Case for the Harbourside Public Realm: Whitby Swing Bridge scheme is being submitted by North Yorkshire County Council (NYCC) as the Scheme Promoter (as Local Highway Authority) and provides the evidence base as part of Stage 2 of the Towns Fund process. The Business Case will be assessed by Scarborough Borough Council who are the accountable body in line with Towns Fund Business Case criteria (delegated by Ministry of Housing, Communities and Local Government (MHCLG) now the Department for Levelling Up, Housing and Communities).

The Project

The following provides a Plan showing the project scope.

Figure 1 – Project Scope Map



The intent of the Harbourside Public Realm project is to improve the public realm in and around the Swingbridge, allowing the routine closure to vehicular traffic to be enacted more easily and with more permanent signage. This will enhance the centre of the town, improving the visitor experience and promote additional return visits. The scheme will also look at the junction of Spital Bridge with the A171. A junction that was seen to suffer from the increased traffic movements during the experimental closures undertaken in 2021. The pedestrianisation of this central area will also improve non-motorised links between the east and the west of the town which links into other projects currently being developed in the town.

In addition to the Town Fund Deal, Whitby has been allocated £500,000 as part of the Towns Fund Accelerated Funding to assist economic recovery of the local area. As part of this one of the pilot projects includes the 'Pedestrianisation of Whitby Swing Bridge' aiming to alleviate the documented congestion and conflict between vehicle users and pedestrians at the very heart of the town – which has been significantly exacerbated by Covid-19 owing to social distancing requirements.

This Business Case

This Business Case is largely based on the HM Treasury Green Book Five Case Model structure providing key information presented by the Scheme Promoter in a proportionate manner to enable Decision Makers to make an informed decision.

The Business Case will set out:

- The Strategic Case including demonstration of need and market failure, and alignment with objectives of Towns Fund
- The Economic Case demonstrating impacts of the scheme and value for money
- The Financial Case demonstrating affordability
- The Commercial Case demonstrating deliverability
- The Management Case outlining capability and management arrangements

STRATEGIC CASE

STRATEGIC CASE

INTRODUCTION

The Strategic Case sets out the rationale for proposed investment. The purpose of the Strategic Case is to set out the strategic drivers for this investment and the associated strategies, programmes and plans both locally and nationally. This should be based upon a robust evidence base which demonstrates a case for change.

CASE FOR CHANGE

Context

Whitby developed primarily on the eastern side of the River Esk below the Abbey as a fishing town during the medieval period. Once the bridge was constructed in the 14th Century the town developed on the western side of the river. Whitby's history is intrinsically linked to its coastal location and harbour. Today the tourism sector drives Whitby's economy building on its assets such as Whitby Abbey, the area's maritime history, and access to high quality coastal environment and national park.

According to the latest visitor research report available (The Economic Impact of Tourism on Scarborough 2019), 10.24 million trips were taken to the Borough of Scarborough, of which 8.8 million were day trips. 1.44 million overnight visits were made, accounting for 4.5 million nights spent in the area. £610.5 million was spent by visitors during their visit to the area. Of this £319.1 million was generated from day trips and £291.4 million generated by overnight visits. It is worth noting that although day trippers account for the lion's share of all visits, the lower proportion of staying visitors account for a larger share of income generated. When the multiplier effect is taken into account, £837.1 million was spent in the local area as a result of tourism. 47.3% of the population is employed as a result of tourism in Scarborough Borough. While these figures are strong, they also highlight the Borough's reliance on tourism and importance of maintaining a strong visitor economy. The dependence on tourism also provides significant challenges.

The following provided an overview of the Challenges / Problems:

- High Level / Strategic
 - **Imbalanced Local Economy** - the local economy is characterised by low skilled, low paid, part-time and seasonal employment
 - **Declining and Ageing Population:** Decline in population with net outmigration, and higher proportion of people over 65 moving into the area (impact on number of economically active residents)
 - **Social Inequality:** Parts of Whitby suffer complex deprivation problems with one area within the bottom 10% and two in the bottom 20% as defined by the Index of Multiple Deprivation (2019)
 - **Climate Change:** Scarborough Borough Council declared a climate emergency setting a target of becoming a carbon neutral economy by 2030. Significant transport investment within the Region needs to be revolutionary to decarbonise the transport network
- Primary / Local
 - **Inadequate Pedestrian Environment:** High pedestrian/vehicle conflict on the swing bridge particularly during busy tourist season which inhibits walkability and harms the experience of visitors and residents.
 - **Road safety:** High pedestrian/vehicle conflict on the swing bridge particularly during busy tourist season.
 - **Car dominance:** Delays and congestion resulting from car dominance in Whitby, particularly in busy tourist season, reduces accessibility to development, employment and educational facilities
 - **Severance:** Severance between East and West of Whitby due to barrier of Risk Esk with limited crossing points (Swing bridge and A171).

- **Unattractive Environment:** Poor air quality and climate emergency declared in Scarborough BC
- Other / Future Needs
 - **Covid-19:** Reliance on tourism during lockdowns impacts number of visitors. Outside of lockdowns there is likely to be increased demand for walking and cycle provision as a result of changes to travel patterns due to the pandemic. Pre Covid-19 visitor numbers had been increasing each year. During Covid-19 there were peaks of visitors which exacerbated the usual summer congestion when combined with social distancing measures. The image below highlights the high pedestrian demand across the swing bridge in September 2020.
 - **Travel Demand:** Increased travel demand in the future through new residential and employment developments

Figure 2 – Swing bridge, September 2020



The swing bridge in September 2020 (Image: Peter Harbour - Yorkshire Live)

Whitby Swingbridge Context

Due to the width of the road over the Swingbridge only being wide enough for a single traffic lane, vehicular movements over the Swingbridge are controlled by traffic signals. These traffic signals switch to “all red” when the Swingbridge has to close to highway movements (pedestrian and vehicular) and open to river traffic. This usually happens once every 30 minutes in the 2 hours either side of high tide, but is on an on demand basis by river traffic.

The Swingbridge has narrow footways on either side of the carriageway, but during times of high pedestrian flows, pedestrians quickly spill out onto the highway. When this happens, it causes vehicles to slow down and they soon fail to get fully across the bridge during their green phase of the traffic signals. This quickly leads to the opposing traffic seeing their traffic signal turn to green and setting off across the bridge in the throng of pedestrians. When two opposing vehicles meet on the bridge, this quickly leads to safety issues with at least one vehicle having to reverse amidst large numbers of pedestrians.

In the past 4 years, the NYCC Highways Department have had to respond to concerns raised by the Police and enact a temporary closure of the Swingbridge to vehicular traffic to allow the pedestrians to

move safely across the bridge. These closures are inevitably unplanned and have no prior warning for the residents and businesses in the town. Whilst the majority of residents and business can see the need for the closures, the impromptu closures have been the source of some complaints in the town.

As part of the Towns Fund Accelerated funding from the Whitby Town Deal Board, NYCC Highways were asked to put in place an Experimental Traffic Regulation Order to close the Swingbridge at key times in order to see the impact of these closures on the town. This Experimental Order ran from 1 April 2021 to the 31 October 2021. NYCC's Business and Environmental Services Corporate Director approved the recommendation at his meeting on the 21 January 2022 to allow the formal pedestrianisation of the Swingbridge to continue provided the additional funding via the Whitby Town Deal Board could be secured to improve the streetscape and deal with the traffic issues identified during the experiment.

This document sets out the business case for the additional £2.3m needed to improve the streetscape immediately surrounding the Swingbridge, and to provide engineering solutions to some of the issues highlighted during the trial closures.

STAKEHOLDERS

The preparation of the Whitby Town Deal Investment Plan has been driven by extensive stakeholder and community engagement with a collaborative approach to scheme development and prioritisation. The projects within the plan have largely been based on feedback from a comprehensive range of sources gathered between February 2020 and September 2020. The consultation process has included over 9 public consultation events and exhibitions, over 30,000 engagements / views via electronic and social and traditional media and over 390 direct contributions, 10 Town Deal Board meetings and over 30 development meetings.

There has been a number of key stakeholders engaged via meetings and ongoing discussions throughout the duration of the Experimental Traffic Regulation Order on this specific Harbourside Public Realm: Whitby Swingbridge project, namely:

- Whitby Town Deal Board
- Whitby Town Council
- Scarborough Borough Council (including SBC's Parking Manager)
- Whitby Harbour Master
- RNLi and Coastguard
- North Yorkshire County Council and their elected Member
- Whitby Taxi operators
- Arriva Bus Company
- North Yorkshire Police
- Driver and Vehicle Standards Agency (DVSA)

These key stakeholders have contributed to the running of the trial and their comments have helped form what people have seen on the ground. The active promotion of the County Council's on-line consultation page for this scheme has, to date resulted in over 530 responses from residents and visitors alike.

At the time of writing these comments are still being analysed. Initial headlines indicate the following six most often cited themes/comments (with frequency of mention in brackets) were;

- (312) Junction improvement needed for Spital Bridge
- (162) Detrimental effects on congestion and journey times
- (106) A view that the needs of visitors are being placed ahead of local people
- (91) Supportive of weekend /bank holiday/some closures
- (65) A view that pedestrians should stay on the footpaths on swing bridge, that guardrail could be added to the footways to keep pedestrians off the road/ that pedestrians should adhere to one way (Covid) signage

- (56) Full support/support for ongoing daily closures

It is proposed the feedback informs scheme development and current proposals are that further engagement and consultation take place on the scheme during Spring 2022 to both provide updates on progress and seek feedback to inform design development.

POLICY ALIGNMENT

The Towns Fund policy context outlined above sets out the alignment of the scheme to national policy. The following provides an overview of other national, regional / local policy context alignment:

National

- National Planning Policy Framework (NPPF), 2012 and updated 2018.
- Britains Transport Investment Strategy
- UK Clean Growth Strategy
- UK Clean Air Strategy
- Emergency Active Travel Fund
- Covid-19 Recovery Strategy
- UK Tourism Action Plan
- Visit England Five Year Strategy
- UK Cycling and Walking Investment Strategy
- A Green Future: 25 Year Plan
- Government Zero Carbon 2050 pledge

Regional / Local

- Emerging Local Industrial Strategy
- York and North Yorkshire LEP's Covid-19 Economic Recovery Plan
- NYCC Local Transport Plan 4 (LTP4), 2016-2045.
- York, North Yorkshire & East Riding LEP Strategic Economic Plan, 2014.
- Scarborough Local Plan, 2017
- Scarborough BC Carbon Neutral 2030 Pledge
- Borough of Scarborough Draft Visitor Economy Strategy and Destination Plan

VISION AND OBJECTIVES

The vision for the Harbourside public realm: Whitby Swingbridge scheme aligns with the overarching Whitby Town Deal Vision Statement of ambition aims to reduce the impact from motor vehicles and greatly enhance the experience of those visiting and using the area.

The following provides a summary of the Whitby Town Deal Strategic Objectives:

- Economic Growth – change the local economy mix to higher skilled and paid, seasonal and permanent employment, increased proportion of economically active residents
- Social Inequality: improve area and attractiveness of Whitby to visitor and residents to address deprivation problems
- Climate Change: contribute to Scarborough Borough Council target of becoming a carbon neutral economy by 2030.

The aims for the Harbourside Public Realm project are as follows:

1. Improve pedestrian and cyclist safety on the Swingbridge during times of high tourist activity.
2. Improve daytime east-west non-motorised connectivity between the two halves of the town.
3. Reduce carbon/carbon-equivalent and pollutants, and improve local air quality
4. Improve connections across communities

5. Enhance the connection of the networks of interesting spaces to explore and places to linger, and improving knowledge of natural assets
6. Enhance the highway network in and around the Swingbridge to improve traffic movements and improve the visitor offer in the centre of the town.
7. Provide an public area to continue to develop key visitor attractions.
8. Support the tourism economy associated with Whitby.

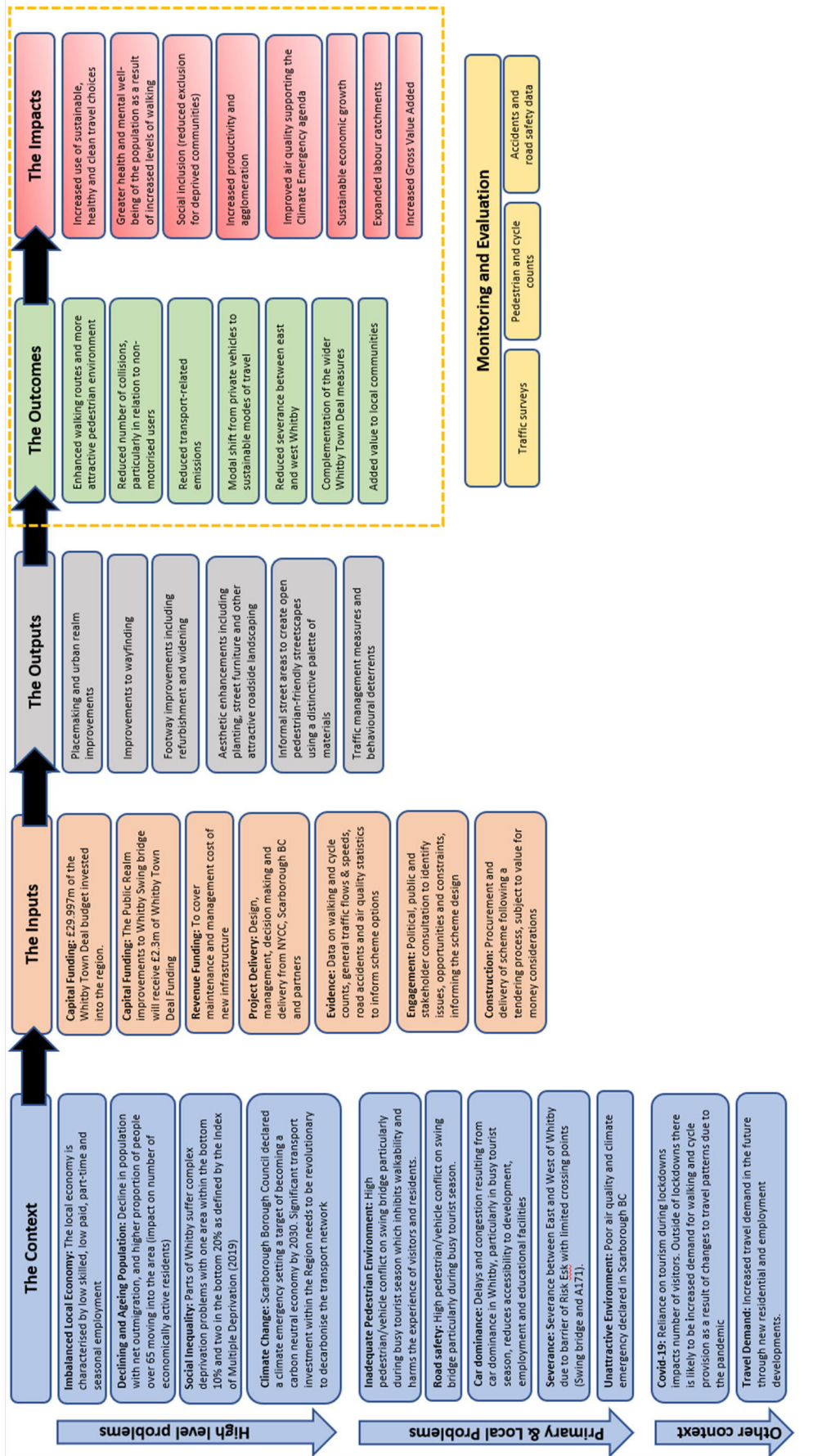
Objectives:

- A. Improve public safety
- B. Improve health through increased walking and cycling for local cross town journeys
- C. Improve links to key destinations in and around the town
- D. Improve traffic flows diverted away from the bridge during times of closure
- E. Support the tourism economy related to the town and to walking and cycling

It is proposed that the targets are defined at the next Development Stage alongside a more detailed Monitoring and Evaluation Plan. It is proposed that these will largely be informed by ongoing monitoring of traffic and pedestrian movements, accident data and Local air quality monitoring locations.

The following Logic Map sets out the above.

Figure 3 – Logic Map



THE PROPOSED INVESTMENT

The need to close the Swingbridge during high visitor numbers has been proven in the past few years. However, in the past this has been carried out on an ad-hoc basis with the use of temporary roadworks signing. One of the aims of this project is to have more regular known closures of the Swingbridge and use permanent signing to remove the “building site” appearance that sometimes attracts adverse comments. It is also recognised that the road network immediately surrounding the bridge would benefit greatly from some improvements to remove the dominance of the motorised vehicle, especially during the times the bridge is closed.

The experimental closure also highlighted the need to consider junction improvements at the Spital Bridge / A171 junction and this is included in this scheme. The experimental closure of the bridge to motorised traffic during 2021 did show that other parts of the town were impacted by the displaced traffic. A lot of these impacts were mitigated by temporary matrix signs advising motorists of available car parking spaces. This was thought to reduce the number of vehicles driving around the town looking for parking spaces. This scheme intends to replace the temporary signs with permanent ones. There will be an opportunity to link the signage with sensors in the car parks, but this work is dependent on a separate funding source and will be delivered at a later date if feasible.

A total of 4 scheme options have been appraised as part of this Business Case alongside a ‘Do-Nothing scenario (Note – Do Something and Do Maximum include improvements to the Spital Bridge / A171 junction):

- **Do Minimum:**
 - Bridge closure only (ie. no public realm works / without scheme)
 - Partial closure of the Swing Bridge on weekends (only) between May and October (10:00-16:30)
- **Do-Something (1):**
 - Full Public Realm Works
 - Partial closure of the Swing Bridge on all days between May and October (10:00-16:30)
- **Do-Something (2):**
 - Full Public Realm Works
 - Partial closure of the Swing Bridge on weekends (only) between May and October (10:00-16:30)
- **Do-Maximum:**
 - Full Public Realm Works
 - Full closure of the Swing Bridge every day all year round (January to December)

RISKS, CONSTRAINTS AND INTERDEPENDENCIES

The above section provide the background and evidence of need to make the case for change.

There are project risks that need to be identified and managed throughout the development and delivery of the scheme. The Whitby Town Deal identifies the following high level risk for this scheme:

- Requiring relevant planning applications and consents
- Securing funding to support project delivery
- Partnership working required to deliver projects successfully

These along with other risks are identified in further detail in the Risk Register and Management case.

The Harbourside Public Realm: Whitby Swingbridge scheme can be delivered and offer significant benefits in isolation. However, there are significant benefits in interdependencies with the Whitby Town Deal package of measures and this scheme plays a critical role in assisting pedestrians moving between east and west and therefore accessing other Town Deal projects such as the Old Town Hall and complementing the Wayfinding signage project.

ECONOMIC CASE

ECONOMIC CASE

INTRODUCTION

This section of the Business Case outlines the Economic Case for the Whitby Swingbridge scheme, including the identification of its impacts, costs and the resulting Value for Money (VfM). The assessment forms a fundamental part of the overall Business Case, demonstrating both the monetised and non-monetised impacts of the scheme, relative to its cost. Ultimately it aims to demonstrate that the scheme offers VfM.

The Green Book¹ sets out the current best practice guidance on assessing and evaluating projects and recommends that options should be appraised using Cost-Benefit Analysis (CBA). This aims to quantify as many of the costs and benefits of a scheme as feasible, presenting as many of the impacts as possible in monetary terms, so that they can be compared in a common unit of measurement.

The VfM appraisal has been prepared in accordance with the Department for Transport (DfT) Transport Analysis Guidance (TAG) suite of documents. As such, the VfM appraisal follows the overall approach outlined in WebTAG Unit A1.1 Cost Benefit Analysis, with the analysis of individual impacts following the additional relevant WebTAG Units.

APPROACH TO ECONOMIC CASE

The VfM Assessment advice note outlines that the assessment should be split into three distinct parts, the first of which involves calculating an 'Initial BCR', which aims to capture the impacts that are typically monetised. However, not all impacts can be easily monetised, therefore, the second step involves assessing impacts where there is some evidence to support calculation of monetary values, which in turn feeds into the 'Adjusted BCR'. However, as part of this Business Case, no suitable components have been identified to give an 'Adjusted BCR' and consequently this step will not be undertaken. Finally, the non-monetised impacts of the scheme are assessed using a seven point qualitative multi-criteria analysis based technique as follows:

- Large beneficial.
- Moderate beneficial.
- Slight beneficial.
- Neutral.
- Slight adverse.
- Moderate adverse; and
- Large adverse.

A total of 4 scheme options have been appraised as part of this Business Case alongside a 'Do-Nothing' scenario:

- **Do Minimum:**
 - Bridge closure only (ie. no public realm works / without scheme)
 - Partial closure of the Swing Bridge on weekends (only) between May and October (10:00-16:30)
- **Do-Something (1):**
 - Full Public Realm Works
 - Partial closure of the Swing Bridge on all days between May and October (10:00-16:30)
- **Do-Something (2):**

¹ The Green Book – Her Majesty's Treasury guidance on how to appraise schemes (July 2011)

- Full Public Realm Works
- Partial closure of the Swing Bridge on weekends (only) between May and October (10:00-16:30)
- **Do-Maximum:**
 - Full Public Realm Works
 - Full closure of the Swing Bridge every day all year round (January to December)

Table 1 summarises each of the individual impacts which have been assessed as part of the Initial and non-monetised impacts which have been assessed qualitatively.

Table 1 – Monetised and Non-Monetised Transport Impacts

Category of Impacts	Monetised Impacts	Non-Monetised Impacts
Economy	- Business users & providers (AMAT impacts on absence from work)	- Wider Economic Impacts
Environment	- Noise - Local Air Quality - Greenhouse Gases (AMAT marginal external costs)	- Landscape and Townscape - Heritage / Historic Environment - Biodiversity - Water Environment
Social	- Commuting & other users - Accidents - Physical activity (AMAT calculations of health benefits and marginal external costs) - Journey quality (Ambience) (ABC calculations of journey quality / ambience and public realm)	- Severance - Accessibility - Affordability
Public Accounts	- Cost to broad transport budget - Indirect tax revenues - Infrastructure (savings calculated by AMAT marginal external costs)	

Once each of the impacts of the package have been assessed, the results are summarised in the Appraisal Summary Table (AST) and used to inform the VfM Statement, outlining whether the benefits of the package outweigh the costs.

ECONOMIC BENEFITS

The methodology for appraising Active Mode schemes, as set out in TAG unit A5.1, has been followed. The November 2021 version of the DfT's Active Mode Appraisal Toolkit (AMAT) has been utilised to assess the likely benefits from the scheme along with TFL's Ambience Benefit Calculator (ABC) Tool. This will be based on:

- Current baseline observations of cycling and walking (calculated from the Propensity to Cycle Tool);

- An uplift in usage based on the DfT’s Active Travel Fund uplift tool (deriving an uplift from the scale of scheme cost and type of intervention);
- An enhanced journey quality for pedestrians based on the scheme components (assessed only in the ABC Tool to avoid double counting); and
- No appraisal for cyclists given there is no dedicated infrastructure proposed for cycling as part of the scheme.

The approach to determining the monetised benefits of the scheme using the above methods has been developed in line with TAG guidelines, principles, values and the latest November 2021 TAG Databook values.

The economic benefits of the active mode appraisal (walking) for have been appraised over a 60-year period in the core scenario, as the proposals are considered to have a comparable design life to major road and rail capacity improvements. The economic benefits captured for public realm within the ABC tool have been appraised over a 20-year period in the core scenario, based on the anticipated lifespan of the proposed infrastructure; and

Table 2 below provides a summary of the key assumptions used in the scheme appraisal.

Table 2 – Appraisal Assumption Summary

Assumption	Value	Source
Scheme Opening Year	2024	Scheme Programme
Appraisal Period	- Active Mode Appraisal: 60 Years - Ambience Benefits Calculator: 20 Years	HM Treasury Green Book & TAG
Appraisal Base Year	2010	HM Treasury Green Book & TAG
Discount Rate	- Appraisal Base Year – Year 30: 3.5% - Year 31 – 60: 3%	TAG Databook (November 2021)
Market Adjustment Price	1.19	TAG Databook (November 2021)
General Inflation	GDP Deflator Forecasts	TAG Databook (November 2021)
Pedestrian Demand	1,958	PCT Data (Census 2011) + NTS adjustment for other journey purposes
Pedestrian Demand Uplift	- Do-Min, Do-Som & Do-Max: 16% - DfT Uplift Tool (Sensitivity Test): 69%	- Comparable Study (Sustainable Travel Towns) - DfT Uplift Tool
Willingness to pay adjustment factor	0.57	ABC Adjustment Factor Tool (Comparison of London – ONS dataset)
AMAT Annualisation Factor	- Do-Min and Do-Som 2: 54 Days - Do-Som 1: 183 Days - Do-Max: 365 Days	- Do-Min and Do-Som 2: Weekend days between May and October - Do-Som 1: Everyday between May and October - Do-Max: Everyday all year round

Optimism Bias	- OB on capex: 23%	TAG (November 2021)
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ECONOMIC COSTS

Scheme costs have been calculated using a detailed bill of quantities derived from the scheme designs based on unit rates and a set of indirect uplifts.

The following steps have been undertaken in line with WebTAG guidance:

- Scheme cost (2021 prices, including inflation);
- Cost adjusted for risk (2021 prices excl. VAT) is included within Financial Case only - following the November 2021 update to TAG Unit A1.2, guidance states that scheme costs used to inform appraisal should use an alternative adjustment for risk. This adjustment can be made by quantifying risk through a QRA which takes an 'inside view' to form a risk-adjusted cost estimate using a 'bottom-up' approach or adopting an 'outside view' using a "top-down" approach to cost estimation based on Reference Class Forecasting (RCF) techniques and using the well-established optimism bias-adjusted cost approach. The latter optimism-bias adjusted costs approach has been applied to the estimation of scheme costs to ensure the appraisal of costs is robust at OBC stage;
- TAG Unit A1-2 indicates that the recommended Optimism Bias for highway interventions and general transportation is 23%. This is applicable for all scheme elements;
- Optimism bias adjusted cost converted to 2010 prices;
- Discounted to 2010 prices; and
- Multiplied by the indirect taxation factor of 1.19 to ensure costs are in comparable market prices.

The Present Value of Costs (PVC) of the preferred option is **£1.53m**. This has been calculated and presented in Table 3, noting that the infrastructure cost saving calculated in the active mode appraisal has been included here.

Table 3 – Scheme Cost Summary

	Do Min	Do Som 1	Do Som 2	Do Max
Outturn (Excluding risk)	£0	£2,118,458	£2,118,458	£2,118,458
Real Prices (2021/22)	£0	£2,028,404	£2,028,404	£2,028,404
Risk adjusted costs	£0	£2,028,404	£2,028,404	£2,028,404
Total (Including OB)	£0	£2,494,937	£2,494,937	£2,494,937
Deflated and Discounted	£0	£1,282,384	£1,282,384	£1,282,384
Capital Costs (2010 Market Prices and Values)	£0	£1,526,037	£1,526,037	£1,526,037
Present Value of Costs	£0	£1,526,037	£1,526,037	£1,526,037

VALUE FOR MONEY ASSESSMENT

The DfT value for money framework (July 2017) suggests a flexible approach to economic appraisal to ensure time and resources spent on the development of a business case are proportionate to the size of the investment. In line with the DfT value for money framework (July 2017), a Benefit Cost Ratio (BCR) has been calculated for the scheme by comparing the costs with the benefits of a scheme over the assessment period. The BCR for the Whitby Swing Bridge preferred scheme option is **1.41** which represents a 'Low' Value for Money (VfM) assessment.

There has been recent criticism of how much emphasis is placed on the BCR of transport schemes and there is a call for an increased role for the strategic narrative to capture non-quantifiable benefits. The use of sensitivity testing and alternative scenarios to support the BCR is therefore encouraged.

The DfT Uplift Tool, as provided as part of the Tranche 2 of the Emergency Active Travel Fund (EATF), was used as a sensitivity test for both the AMAT and ABC tool appraisals. The BCR for the preferred scheme option using uplifts from the DfT Uplift Tool is **5.81** which represents a 'Very High' VfM.

Further sensitivity tests may be required to test the impact of the COVID pandemic on trends in walking, cycling and public transport use.

Table 4 summarises the Monetised Costs and Benefits and the VfM position.

Table 4 – Summary of Monetised Costs and Benefits

Value for money assessment (£m, discounted, 2010 prices)	Do-Minimum	Do-Something (1) Preferred Option	Do-Something (2)	Do-Maximum	Sensitivity Test – DfT Uplift (Preferred Option)
Economic benefits - Active Mode User					
<i>Reduced risk of premature death</i>	£388,160	£1,337,830	£388,160	£2,475,990	£5,973,860
<i>Absenteeism</i>	£147,640	£519,590	£147,640	£986,950	£2,320,130
<i>Public realm benefits (ABC)</i>	£0	£220,223	£775,017	£1,472,142	£257,658
Economic benefits - Marginal External Costs					
<i>Congestion</i>	£16,820	£59,194	£16,820	£112,440	£264,323
<i>Accidents</i>	£2,987	£10,511	£2,987	£19,970	£46,935
<i>Local Air Quality</i>	£504	£1,774	£504	£3,370	£7,921
<i>Noise</i>	£199	£701	£199	£1,330	£3,129
<i>Greenhouse Gases</i>	£652	£2,295	£652	£4,360	£10,247
<i>Indirection Taxation</i>	-£598	-£2,104	-£598	-£4,000	-£9,394
Economic costs					
<i>Capital Costs</i>	£0	£1,526,037	£1,526,037	£1,526,037	£1,526,037
Net Present Value (NPV)	£556,364	£623,808	£-194,702	£3,546,314	£7,348,054
Benefit-Cost Ratio (BCR)	N/A*	1.41	0.87	3.32	5.81
*BCR could not be calculated for Do-Minimum scheme option as there is no cost associated with this option at present.					

From Green Book (2020) guidance (p. 40): When considering proposals from a UK perspective the relevant values are viewed from the perspective of UK society as a whole. Where appraising a place based policy or a UK wide proposal with place based effects the relevant values include effects in the place of interest and similar nearby travel to work areas. The relevant costs and benefits which may arise from an intervention should be valued and included in Social CBA unless it is not proportionate to do so. The priority costs and benefits to quantify are those likely to be decisive in determining the differences between alternative options. The appraisal of social value involves the calculation of Net Present Social Value (NPSV) and Benefits Cost Ratios (BCRs) the ratio of benefits to costs.

NON-QUANTIFIED BENEFITS

Severance

There are likely to be some benefits to vulnerable cyclists and pedestrians associated with reduced severance in the immediate area on and around the swingbridge, as a result of the proposed

improvements. Reduced severance will particularly benefit the young, elderly and other vulnerable social groups.

The scheme will have a significant impact on traffic flows, as the scheme proposes to restrict general traffic in the immediate area on and around the bridge. Barriers to pedestrian movements are removed where possible and reductions in highway widths across the scheme area increase the opportunity for formal and informal crossings. Highway space will be rationalised and reallocated to pedestrians making the area more permeable and less intrusive to traffic.

Accidents

It is anticipated that the impact of shift between modes will have a small positive impact on accidents, which is offset by increases in journey times for car users. A number of areas are likely to receive positive impacts with regard to accidents through improved control of traffic flow (traffic signalling) and a reduction in the number of private vehicles in areas with a high pedestrian presence. This will likely result in a reduction in the casualty rate at the Baxtergate and St Ann's Staith junctions in particular where accidents involving pedestrians and cyclists have occurred in the last 5 years. There may however be a negative impact (increase in accidents) on surrounding routes due to the rerouting of private vehicle trips following scheme implementation. This may pose a risk to surrounding vulnerable residential populations.

Accessibility

Accessibility is important in the context of the scheme as the people who will use the improved public realm will typically be tourists. A significant proportion of these people may not own or have access to a car and are thus reliant on good quality pedestrian routes to access key amenities in the town centre as well as key tourist destinations such as Whitby Abbey, the Dracula Experience and 199 Steps.

There will be an impact on some bus services within the area such as the 95 which currently uses the Swing Bridge. The 95 service will likely have to re-route via New Bridge which will remain open to traffic all year round. This may lead to a negative impact on population groups to the north of the study area who may have to travel further to get on to the bus and may experience increases in journey time as a result of the re-routing.

Affordability

Personal affordability is relevant as the relatively low transport costs associated with walking (especially compared to the costs associated with owning and running a car) will benefit particular groups such as those on low incomes, older people and those seeking active employment.

This will be another important social impact of the scheme as the enhanced walking network will offer far more opportunities for low cost travel options and will thus improve the personal affordability of travel to/from various amenities in and around the town centre.

It has been concluded that it is not deemed proportionate to proceed with any distributional appraisal at this stage.

Wider Economic Impacts

Although land value uplift would usually be quantified derived through the economic appraisal of urban regeneration, highway, planning and land use schemes, this approach is not possible in the case of the Whitby Swingbridge. A "hedonic appraisal" needs to be considered as the scheme is not aimed towards unlocking sites for developments (overcoming an identified market failure) or allowing a change of use of an existing site to a more efficient use.

Additionally, independent evidence (evaluation) on isolating the impact of public realm/ active travel schemes on business activities remain limited and alternative approaches are required to ensure that benefits of such improvements are captured as part of economic appraisal and ensure that valuable schemes for towns get delivered.

Whilst transport appraisal techniques are well-known and developed in the UK, there is still no fixed definition of how to produce a business case for investment in the public realm, which can make projects in this area very difficult to develop and assess. The proposal is likely to generate wider economic impacts, although minimal. These benefits have not been assessed quantitatively, due to their nature and difficulty to quantify at an early stage of intervention and to avoid the double counting of monetised impacts.

Wider economic benefits related to the scheme would include: agglomeration benefits and productivity effect, health benefits, distributional benefits, regeneration/ placemaking benefits.

Some other strategic benefits monetised above are also associated with schemes of this nature such as the shift from private to public transport modes, the promotion of physical activity associated with cycling and walking, or the support of the local economy.

A summary of these anticipated wider benefits associated with the Whitby Swingbridge scheme are summarised in Table 5 below.

Table 5 – Qualitative evaluation of predicted Wider Economic Impacts

Measure	Expected Outcome
Agglomeration and Productivity	<p>Supporting agglomerations of economic activity through expanded labour market catchments and an increase in accessibility of skilled jobs;</p> <p>Increasing competition by opening up access across the town centre to new markets and allowing businesses to trade over a wider area, providing consumers with more choice; and</p> <p>Principally in the medium to long term, agglomeration benefits could be generated indirectly through major investments in the town centre, increasing its attractiveness for business activity in a wide variety of sectors.</p>
Employment Impacts	<p>Schemes which increase human capital, job-search activity or provide better access to jobs can have positive labour supply and macroeconomic effects. These should be included, provided they can be supported by clear and objective evidence labour supply effects. More sustainable transport links in the town centre provide access to travel for interviews. Thus, the pool of workers is widened for recruitment agencies and choices are enhanced for retention options for employers. This allows businesses to choose the most efficient workers and increase productivity.</p> <p>The public intervention, generating higher footfall, should therefore generate additional business activities, particularly for retailers, food and beverage businesses and providers of leisure activities, which in turn will create the need for additional employment.</p>
Attraction of investment	<p>It is reasonable to think that improved walkability, better public transport and enhanced public realm, making the place more attractive to visitors, will increase the footfall on the streets where interventions will take place. It is also reasonable to assume that a proportion of this footfall will be converted into visitors for retail, food and beverage activities and leisure activities. It may also be assumed that a share of those additional visitors will be “converted” into buyers.</p>
Social Inclusion	<p>Sustainable travel has a key role to play in tackling social exclusion by providing people with the means to get to jobs and services. Encouraging the uptake of active modes such as cycling helps promote social inclusion, connecting people to opportunities by fulfilling the following four criteria:</p> <ul style="list-style-type: none"> • Availability – the sustainable travel network should be within easy reach of where people live and operate at frequencies that correspond with patterns of working and social life. • Accessibility – key walking and cycling routes should be designed in a way that is accessible for all without difficulty. Infrastructure should be accessible for all types of users, including children, disabled, and elderly. Users at the top of the transport hierarchy should be prioritised. • Affordability – Users should not be priced out of using transport because of high running costs. The provision of new high quality active travel infrastructure encourages the uptake of cheaper, more affordable travel, providing an alternative to car. • Acceptability – transport infrastructure meets their needs and is safe, comfortable and convenient.

	<p>The main benefit that is expected to arise from the public intervention is an increase in accessibility and permeability of the Town Centre and an improvement of the public realm. This will contribute to create a more attractive place to visit and to do business, retain visitors for longer, attract new visitors and new businesses.</p> <p>Eventually, the change in the economy dynamism of the Town Centre will lead to a reduction in commercial property vacancy and higher commercial property values. This logic is particularly prevailing for the food and beverage, leisure and retail industries, common to Whitby, for which revenues are closely linked to footfall.</p>
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ENVIRONMENTAL AND SOCIAL IMPACTS

An Environmental Constraints Appraisal has been undertaken for the Proposed Scheme, its findings are summarised below.

AIR QUALITY

There are no Air Quality Management Areas (AQMAs) within 10km of the Proposed Scheme and Scarborough Borough has air quality below the national objective level of 40ug/m³ NO_x. No monitoring of pollutants other than NO_x is undertaken.

There is a potential that dust and other emissions arising from construction may cause adverse impacts on nearby sensitive receptors. However, mitigation measures included within a Construction Environment Management Plan (CEMP) would effectively avoid or reduce these impacts.

There is also a potential that the Proposed Scheme may improve local air quality by reducing traffic levels in the area and promoting active travel.

BIODIVERSITY

There are a large number of sensitive biodiversity receptors within 2km of the Proposed Scheme, including one Site of Special Scientific Interest (SSSI), one Ancient Woodland, several areas of Biodiversity Action Plan (BAP) Priority Habitats and other habitats that hold value for protected species such as nesting birds.

There is a risk that some of these nearby receptors may be directly or indirectly affected during construction. The construction along the Proposed Scheme could disrupt nesting bird / bats habitats. There may be a need for a Preliminary Bat Roost Assessment (PBRA), bat transect survey, nesting bird checks, and an invasive species walkover survey prior to construction. Bat surveys are seasonally constrained between May and September, whilst nesting bird checks should be undertaken between March and August. Invasive species surveys should be undertaken between April and September. A Biodiversity Net Gain (BNG) assessment could also be undertaken.

Further scoping should be undertaken at the next stage to inform requirements.

HISTORIC ENVIRONMENT

There are 436 listed buildings, 2 Scheduled Monuments, and 1 Registered Parks and Gardens within 2km of the Proposed Scheme. The entire site is covered by a conservation area (CA). Any design changes proposed to the bridge should be designed to align with the local area. Figure 1 presents the conservation area and listed buildings in the area.

There is a risk that construction traffic and activities may negatively impact the setting of the CAs and other heritage assets in proximity to the Whitby Swingbridge. Construction traffic limits could be employed to reduce this impact on both the CA and other nearby heritage assets.

Figure 4 - Listed Buildings



LANDSCAPE AND TOWNSCAPE

The Proposed Scheme lies within National Character Area (NCA) 25 North York Moors and Cleveland Hills, which is described as a well-defined upland area bordered by the North Sea to the east. This area is described as an open coastal hinterland agricultural landscape, providing views to landmarks such as Whitby Abbey and key trip attractors such as the Whitby Harbour.

There is a risk that the construction and to a lesser extent operation of the Proposed Scheme may lead to intrusion at nearby sensitive receptors, and in particular, may cause issues with accessing the key sites. To reduce impacts, particular landscape palettes should be used to ensure the area is established as the Whitby Bridge tourism zone, adding to the existing townscape character. Landscape designs have been produced to support the need for specific palette requirements. At the next stage of design, a landscape architect should be consulted to ensure the design remains sympathetic to the surrounding area.

NOISE

Four Noise Important Areas (NIAs) have been identified within 2km of the Proposed Scheme, the closest of which is approximately 0.8miles south of the Proposed Scheme on Prospect Hill. 2 of the NIAs are on the A171, and 2 on Prospect Hill / Mayfield Road which is important to note as this will become the key route where traffic will be redistributed to with the proposed scheme. There is a risk that the Proposed Scheme will result in increased noise in this area, and vibration during construction and may negatively impact nearby sensitive receptors including nearby schools, parks, and cemeteries.

To mitigate these impacts, noise and vibration should be considered as part of the preferred design and noise control measures should be implemented via a CEMP.

WATER ENVIRONMENT AND FLOOD RISK

The Proposed Scheme falls within the Water Framework Directive (WFD) Esk Operational Catchment. The Proposed Scheme crosses the River Esk, which achieved a moderate ecological status in 2021. The proposed scheme sits within a Flood Zone 3 area, meaning there is a high probability of flooding. The construction plan will need to mitigate impacts on the time of year and construction.

During construction, surface water runoff that may be contaminated could negatively affect the River Esk. Measures to avoid or mitigate potential impacts on the water environment should be included within the CEMP.

A summary of the key environmental impacts associated with the delivery of the preferred Whitby Swingbridge scheme is provided below in Table 5.

Table 6 – Environmental Appraisal Summary

Impact	Summary of Key Impacts	7 Point Scale
1. Noise	Anticipated reductions in noise around the proposed scheme location, however, there may be some adverse impacts along the A171 where vehicles will be redistributed to.	Neutral
2. Landscape and Townscape	Due to the location of the scheme, it is considered that the nature of impacts will improve the landscape and townscape in the area of the proposed scheme (after construction).	Slight Beneficial
3. Heritage/ Historic Environment	No direct impacts on designated or non-designated assets. Improvements to public realm and reduction of general traffic are considered likely to improve the context of heritage assets such as the listed buildings, and Whitby Abbey.	Slight Beneficial
4. Biodiversity	There is a risk the scheme may create issues for birds / bat nests, particularly during construction. It is advised to undertake surveys to understand if the bridge is used as a habitat for any species. However, the proposed scheme is likely to improve habitat conditions for species due to limited vehicle use during key nesting seasons (for bats).	Neutral
5. Water environment	The proposed scheme falls within a Flood Zone 3 area, meaning there is high probability of flooding, although this risk is not anticipated to be exacerbated as current hardstanding is likely to be reduced with proposed planting. During construction there is potential for contamination to the River Esk due to surface water run off.	Neutral
6. Air Quality	There are no Air Quality Management Areas (AQMAs) within 10km of the Proposed Scheme and Scarborough Borough has air quality below the national objective level of 40ug/m ³ NO _x . There is potential for the proposed scheme to improve air quality through promoting active travel.	Slight Beneficial

SUMMARY

The Do-Something (1) scheme option (partial closure of Whitby Swing Bridge to general traffic every day between May and October) is the option recommended to be taken forward into the next design and assurance stage. This Preferred option provides over £2m in monetised benefits in addition to significant non-quantifiable benefits that the scheme will generate including agglomeration benefits, increased employment, attraction of investors and tackling social exclusion, as described above. The scheme is well supported by key stakeholders with low risk delivery (no land or planning requirements) and lots of potential for early delivery given the lack of difficulties associated with delivering the scheme.

DfT appraisal guidance states that highway impacts must be accounted for. However, in light of national policy aimed towards decarbonising the economy and building resilience against climate change, discouraging short distance private vehicle trips on an already constrained network can act as a catalyst for modal shift to sustainable modes of travel and will only further complement these priorities.

When considering the benefits of the scheme to existing users, new attracted users, and the economic benefits of the scheme, there is a strong strategic, and economic case for investment.

FINANCIAL CASE

FINANCIAL CASE

INTRODUCTION

This section of the OBC addresses the Financial Case for the preferred Whitby Swingbridge proposal, outlining the affordability of the proposal and its funding arrangements. It sets out the latest cost estimate for the package, including details of the risk and inflation assumptions applied. Furthermore, the key financial risks to the scheme are identified.

COSTS

A copy of the proposed design is attached as **Appendix A** to this report. The outturn capital costs have been estimated based on this design by NYCC’s development partner engineering consultancy WSP, and are based on design information available at this stage. A series of detailed assumptions have been made to build the total outturn cost for the preferred scheme, including the use of contractor experience to estimate indirect cost build ups to ensure these are robust at OBC stage.

The key cost assumptions are as follows:

- **Direct Costs** - The approach to the estimating of cost for direct construction has been estimated using the proposed landscape general arrangement drawings.
- **Preliminaries** - A percentage allowance for preliminaries has been included at 45% as applied to direct construction costs to take into account for traffic management and anticipated reduced productivity as a result of the site conditions i.e. working around pedestrians, working around existing live services etc
- **Contingency** - A 10% allowance has been added to the direct construction costs to account for minor items which have not been measured and priced at this stage of the design process, in line with industry good practice.
- **Project Fees** - A 15% allowance has been included to account for surveys, design, supervision and project management and costs for support during the business cases.
- **Utilities** - A 20% allowance has been included for diversions or upgrades to utilities. This allowance reflects the scheme’s town centre location.
- **Risk** - A 25% allowance for Risk has been included to reflect the maturity of the Employer’s requirements/design. This allowance has been added to the base cost estimate.
- **Future Inflation** - An allowance for inflation (4% per annum from the base date of estimate to mid point of construction) has been made to the Q3 2021/22 cost values.

A detailed breakdown of capital costs is presented in **Table 7** below.

Table 7 – Outturn Capital Costs (Preferred Option)

Cost Item	Cost
DIRECT CONSTRUCTION WORKS:	
Contingency	
Preliminaries, and Overheads and Profits	
INDIRECT COSTS ON CONSTRUCTION WORKS SUB-TOTAL:	
TOTAL BASE CONSTRUCTION COST:	
Project/ Design Team fees and other development costs	
Utilities	

BASE COST ESTIMATE:	
Risk	
Inflation	
ANTICIPATED FINAL COST:	£2,316,107

A Bill of Quantities is included in **Appendix B**.

The funding profile is in line with the costs outlined in the previous section split across three financial years with the majority of funding required for spend in financial year 2023/24. Please see the forecast quarterly funding profile in **Table 8** below which reflects the programme and schedule of activities outlined in the Management Case.

Table 8 – Quarterly Funding Profile

Financial Quarter	Towns Fund	Public Sector Funds
Q3 Oct 21 – Dec 21		
Q4 Jan 22 – Mar 22		
Q1 Apr 22 – Jun 22		
Q2 Jul 22 – Sept 22		
Q3 Oct 22 – Dec 22		
Q4 Jan 23 – Mar 23		
Q1 Apr 23 – Jun 23		
Q2 Jul 23 – Sept 23		
Q3 Oct 23 – Dec 23		
Q4 Jan 24 – Mar 24	1	
Total Cost	£2,316,107	
Current status	Applied for	

Project/ Design Team fees and other development costs are included in the funding profile below and the overall request from the Towns Fund Deal. The remaining costs for the project are expected to be wholly paid for by the Towns Fund, with expenditure to date funded at risk to be claimed back by NYCC.

FINANCIAL RISK

The cost of risk has been accounted for within the total package cost and is assumed to be a robust estimate at the OBC stage.

As shown in **Table 7** above, a quantified risk-adjustment of £0.435m, equivalent to 19% of the total scheme cost has been accounted for. This is considered to be a robust estimate and has been applied to the outturn capital costs to account for project risk.

Risks identified within the risk register will be quantified at Full Business Case (FBC) stage as the cost of delivering the scheme will not be fully known until the detailed design phase has been completed and

tender prices are received. To reflect this uncertainty associated with known risks, a Quantified Risk Assessment (QRA) will be undertaken, using the scheme risk register and Monte Carlo analysis software @RISK. Further detail of the methodology applied to generate a risk-adjusted cost is contained within the Management Case which further describes how risk will be managed through delivery.

ON-GOING/OPERATIONAL COSTS

The Whitby Swingbridge scheme will likely give rise to minor on-going /operational liabilities relating to capital renewals and maintenance. Operating and maintenance costs are the cost of people, machinery and materials required to maintain the infrastructure provided through the delivery of the Whitby Swingbridge scheme.

Maintenance obligations will fall under the purview of NYCC as the local highway authority, and as such, will be fulfilled as part of their current maintenance regime.

The proposed public realm enhancements and junction works on predominately fall within the existing extent of the highway boundary, therefore, it is not expected that there will be any significant additional maintenance costs associated with these elements of the scheme. The lifecycle costs are likely to be less over time due to the reduction in vehicular loading on the existing Swingbridge and will likely outweigh on going annual maintenance costs associated with increased planting.

At FBC the anticipated 'whole life cost' expenditure will be profiled over time, considering both the existing and future maintenance costs, estimating the overall net change. As mentioned above, it is assumed that any allowances will be made by the scheme promoter for the maintenance and operating of the proposed intervention and will therefore be excluded from the financial request to the Towns Fund Deal at both OBC and FBC stage.

FUNDING AND REVENUES

All the cost is going to be funded by the Towns Deal fund except NYCC Officer time. The additional interactive parking scheme, if it goes ahead, will be funded by a third party.

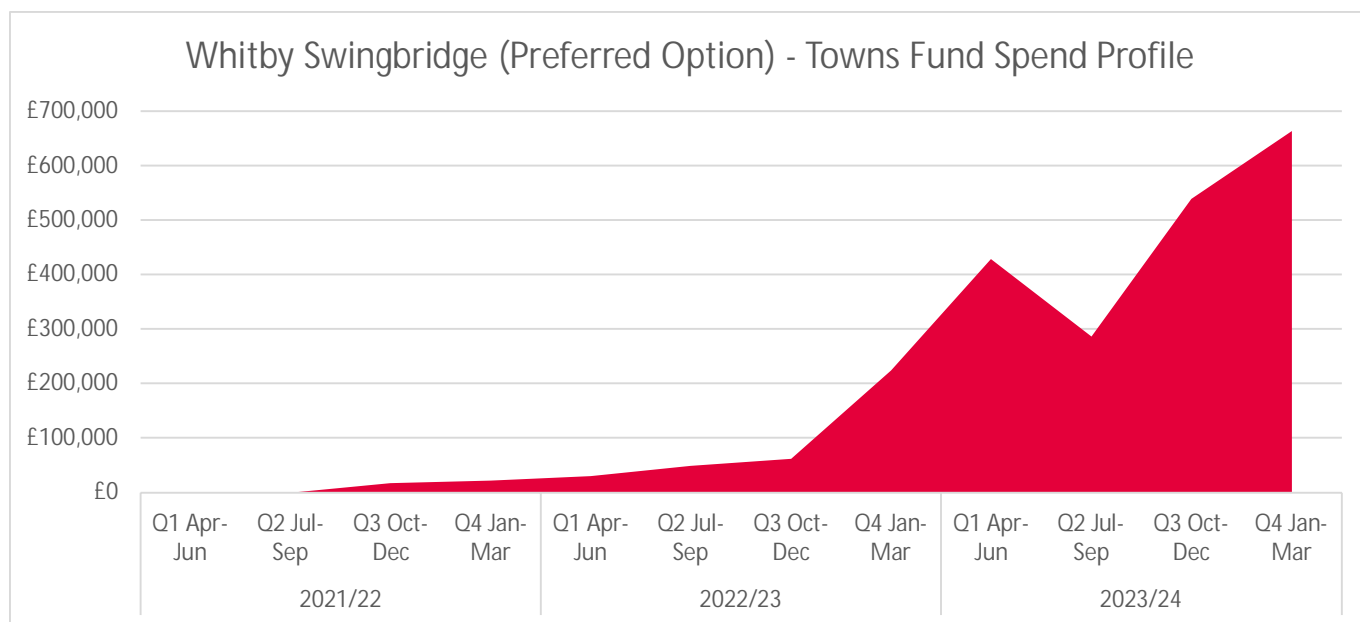
The Towns Fund Deal funding is required to deliver the proposal as the scheme is unaffordable to both NYCC and Scarborough District Council on their own ('the market failure').

If the improvements do not go ahead, the transport and wider non monetised benefits associated with the Whitby Swingbridge enhancements cannot be achieved. This would be in contravention with the policy context at local, regional and national levels. To provide the infrastructure necessary to enable a change in travel behaviour and facilitate local economic growth the scheme promotor requires the full funding request of **£2.316m**.

At this current stage, no additional funding options have been identified by NYCC and SDC. This includes match funding by both the district and county authorities and the scheme will not offer any revenue income. NYCC do have the opportunity to fund some cost increase above te £2.3m budget utilising likely maintenance cost savings as a result of introducing the scheme and reducing the impact and maintenance requirements on the Swingbridge.

The actual and forecast financial spend has been profiled quarterly and is shown in the Figure below for the Towns Fund Deal request. The spend profile will be refined following the completion of detailed design and prior to the submission of the FBC.

Figure 5 – Quarterly Financial Spend Profile



CASH FLOW STATEMENT

In summary, the preferred option is expected to have the following implications on public accounts:

- **£2.316m** from the TCF is being sought which represents 100% of the scheme implementation and development costs. The majority of the funds are expected to be spent during financial year 2023/24;
- Capital renewal costs for replacement of infrastructure and ongoing maintenance and operating costs are expected to be minimal and are therefore excluded for the financial ask. Funding for the works will be reserved from the maintenance budget.

At present, no additional third-party contributions have been identified. However, should the scheme be successful in its bid for funding, it is the intention of the project team to investigate and identify opportunities for contributions.

AFFORDABILITY ASSESSMENT

There is a very high confidence that the scheme will be designed within the available budget. This is based on previous experience in dealing with schemes of this nature.

As part of the development of the designs and through the delivery of the next milestones, the scheme promotor will continue to manage the costs and look at opportunities to value engineer elements of the scheme, especially as design risk will reduce through detailed design. Given the flexibility of the options presented, variations could be introduced to extend the scope of the project, but keeping within the **£2.316m** budget envelope.

The promotor recognises that financial risks still remain despite having considerable experience of delivering this type of project. It is important to note that these have been qualitatively accounted for through the risk review process, and will be quantified through a QRA as the cost of delivering the scheme will not be fully known until the detailed design has been completed, and tender prices have been received.

Further detail regarding scheme risks and their associated mitigations can be found in the Management Case.

WIDER FINANCIAL IMPLICATIONS

Once completed, the maintenance of the project will be funded from routine Highway Authority budgets.

COMMERCIAL CASE

COMMERCIAL CASE

INTRODUCTION

This section of the Business Case describes the Commercial Case for the Improvements to the Whitby Swingbridge and aims to demonstrate that the proposal is commercially viable. It sets out the procurement strategy that will be used to engage the market and presents evidence on risk allocation and transfer. It also outlines contract timescales and the implementation timescale, as well as details on the capability and skills of the team delivering the project and any personnel implications arising from the proposal.

Following scheme approval, North Yorkshire County Council's (NYCC) main aim will be to ensure that the scheme is delivered to time and within budget, with a robust contracting and procurement strategy in place.

PROCUREMENT APPROACH

This section highlights key considerations which have helped determine the procurement approach. It also provides an overview of the procurement contract types available, the types of professional service contracts and the potential options for publishing public sector tenders. Consequently, the structure for this section is as follows:

- Procurement scope.
- Procurement principles.
- Output base specification.
- Existing arrangements.
- Programme; and
- Options available.

Procurement scope

The procurement strategy for the scheme covers the use of existing arrangements and the procurement of additional resources for both the design and preparation stages, including detailed design and the construction of the scheme.

The geographical extent of the proposal is highlighted within the Introduction, along with the junction at Spittal Bridge on the A171.

Procurement principles

The procurement process will be run in accordance with the North Yorkshire County Council (NYCC) procurement principles set out within the North Yorkshire County Council Procurement and Contract Management Strategy 2018 – 2022. The procurement options described within this document will support the vision of the NYCC Procurement Strategy which is 'to become outcome focused ensuring that all Commissioning, Procurement and Contract Management actively delivers Value for Money and efficiencies to the Council'. The Strategy states that this will be achieved through six key themes which are:

- Category Management
- Technology
- Policy and Process
- Contract Management
- People and Skills
- Social Value

Output based specification

The scheme procurement process will enable NYCC to appoint suitable suppliers to support the design, preparation and build of the scheme. The Commercial Case is based on defined number of strategic outcomes and outputs, against which alternative procurement options can be assessed. The strategic outputs and outcomes are summarised below. The strategic procurement outputs are:

- Provision of services to support the preliminary design and public consultation processes.
- Completion of the detailed design of the scheme;
- Provision of services to support the successful completion of all statutory procedures; and
- Construction of the scheme.

The outcomes which the preferred procurement strategy must deliver are to:

- Achieve cost certainty, or certainty that the scheme can be delivered within the available funding constraints.
- Ensure best value is delivered and that the scheme is delivered to programme.
- Ensure stakeholders' acceptance and support for the procurement strategy.
- Optimise further design and preparation costs with respect to scheme design; and
- Utilise contractor experience and input to the construction programme to ensure the implementation programme is robust and achievable.

Existing procurement arrangement

The Scheme is being delivered by NYCC in collaboration with their strategic partners WSP. The Sole Provider Framework, which commenced in 2020 and will last for four years, spans a range of services including estates management, property projects and highways services. This contract provides a stable delivery mechanism through to 2024. The partnership delivers a broad range of technical disciplines including Bridges and Structures, Highways, Urban Design, Flood Risk Management, Intelligent Transport, Transport Planning, Environmental, Traffic and Geotechnical. It enables NYCC and WSP to work in collaboration to deliver a variety of projects. It is intended that the design and preparation phases of the project will continue to be supported by the Sole Provider Framework.

Programme

Key milestones for the project, including the procurement exercise, are presented in the following Table.

Table 9 – Key Milestones Programme

Milestone	Completion Date
Funding Decision	Mid June 2022
Surveys and initial design and public consultation	Feb – Aug 2022
Detailed design	Sept - Oct 2022
Preparation of Contract and Tender Documents	November 2022
Tender Process	December 2023
Tender Evaluation	Mid Jan 2023
NYCC approval process to appoint contractor	End Jan 2023
Contract Award Mobilisation	End Feb 2023
Construction	Mar 23 – Mar 24 with a break for the summer season
Scheme Completion	End April 2024
Post Scheme Monitoring and Evaluation	TBC

Options

The vision of the NYCC Procurement Strategy is:

“Working collaboratively to deliver efficiencies, value for money and sustainable quality through a proactive commercial approach to procurement and commissioning for the communities of North Yorkshire.”

It is the Authority’s policy that all tenders are placed electronically through the YORtender portal. YORtender provides real benefits to all:

- A single procurement approach across the Region
- A means to share, co-ordinate and collaborate on procurement exercises
- E-enabled for all to work smarter and to reduce procurement leadtimes
- Suppliers can register their capabilities and interests in opportunities
- Suppliers receive email alerts of opportunities
- Immediate access to current opportunities
- News Alert feature to communicate key information

The outcomes which the preferred procurement strategy must deliver are to:

- Achieve cost certainty, or certainty that the scheme can be delivered within the available funding constraints;
- Ensure best value is delivered and that the scheme is delivered to programme;
- Ensure stakeholders’ acceptance and support for the procurement strategy;
- Optimise further design and preparation costs with respect to scheme design; and
- Utilise contractor experience and input to the construction programme to ensure the implementation programme is robust and achievable; as well as
- Ensure the contractor puts environmental mitigations and measures in place, consistent with the methods agreed as part of the planning process.

NYCC will most likely utilise NEC3 Engineering and Construction (ECC) which are standard forms of contract used for construction works in the UK. NEC3 has been chosen rather than NEC4 as the former is a contract form that all parties have operated under the conditions of contract for many years and thus is more understood by both parties. Specific NEC3 Secondary Option clauses and Z clauses e.g. to minimise budget risk, will be used to protect NYCC.

There are four pricing mechanisms available.

Option A (Priced Contract with Activity Schedule)

The contract is awarded as a lump sum based on the activity schedule and the employer can award on the lowest price or a quality/price ratio. The contractor is paid the lump sum for each activity.

- Pros: This form of contract is attractive to employers as it provides relative cost certainty.
- Cons: Option A is only viable if the design is fully defined at the time of tender.

Option B (Priced Contract with Bill of Quantities)

The contract is awarded based on the tendered total of a Bill of Quantities (BoQ) using assumed amounts. The employer can award on the lowest price or a quality/price ratio. The contractor is paid for the actual quantities of work undertaken at the rates in the submitted BoQ provided, with the provision that any changes in quantity do not exceed a defined limit. Changes in quantities in excess of the defined limit are treated as compensation events. As with all options, compensation events are assessed and paid on an actual cost reimbursable basis. However, the BoQ may be used as the basis of assessment should the contractor and project manager agree

- Pros: The quantification of risk lies with the employer so the design may be at an earlier stage of tender compared to other options.

- Cons: Whilst Option B may incorporate some elements of contractor design, it is not suitable for use where the intention is to transfer major elements of design liability to the contractor. The opportunity for placing risk with the contractor is limited and cost certainty is reduced from that achievable with Option A.

Option C (Target Contract with Activity Schedule)

The contractor is paid for the work undertaken with incentivisation via a pain/gain mechanism based on cost incurred vs target price. The share percentages of the pain/gain mechanism are defined by the employer. The employer can award on a lowest price or quality/price ratio.

- Pros: Target cost reimbursable contracts are used predominately in situations where the full extent of the required work cannot be determined at the time of award. They provide the facility of sharing risk in situations where contractors would either not be prepared to provide fixed prices and/or the risk premium would be unacceptably high. They may also provide the employer with the opportunity of sharing in cost savings where the project has opportunities for innovative design/construction methods to be introduced by the contractor.
- Cons: The activity schedule in this case is simply the way in which the target price is built up and related to the intended programme. The risks associated with the accuracy of the target (i.e. quantification risk) lies with the contractor but the degree of risk transfer is determined by the share ranges specified. Option C does not provide a high level of cost certainty.

Option D (Target Contract with Bill of Quantities)

As with Option C the contractor is paid incurred costs. The BoQ is used to derive the target and to adjust the target if the quantities vary within a defined range. In all other respects this option operates in the same manner as Option C.

It has been concluded that the primary objectives in terms of cost and programme are most likely to be achieved by progressing the scheme using the NEC3 Option B: Priced contract with a Bill of Quantities; form of contract and this is anticipated to be the form of contract used for the construction of this scheme.

CONTRACTING OVERVIEW

This section sets out the contracting aspect of the Commercial Case and includes:

- Payment mechanisms.
- Pricing framework and contract management.
- Risk allocation and transfer.
- Contract length; and
- Contract management.

Payment mechanisms

Payment timing will be adopted to maximise the value from the contract through minimising financing and transaction costs. Prompt and fair payment mechanisms will be applied throughout the supply chain. This will be covered through the procurement process, and monitored during the contract, to ensure full value is delivered.

Pricing framework and charging mechanisms

Contractors would be invited to bid on a Bill of Quantities drawn up by the designers, based on the detailed designs available. Plus there would be a number of quality questions for the contractor to answer in order to allow the client to measure the relative “quality” of the competing contractors. The purpose of this model is to come up with the best price/quality solution for the scheme. The ratio of cost to quality will be determined later in the project.

Risk allowance and transfer

A project risk register will be developed to consider the risks associated with the delivery of the scheme. The register logs risks identified during the planning and design phases and outlines any potential issues that have or that could adversely impact the scheme delivery programme and cost. Each risk is classified and grouped into one of the following areas:

- Engineering – Including scheme design, structures and earthworks.
- Planning & Site Supervision – Including legal/statutory processes, site supervision, policy changes and overall programme.
- Strategic – Including funding, policy, planning, stakeholder consultation.
- Statutory Undertakers – Including unforeseen statutory services and delivery programme risks.
- Environment – Contaminated land, construction/operation phase impact on protected designated sites and protected species discoveries.
- Ground Conditions – Including land drainage and unforeseen ground conditions; and
- Contractual/Construction - Including adverse weather, programme delays and resource issues.

The risks will be managed throughout the development of the scheme and allocated to an appropriate group or bearer - this includes the contractor. Where this is the case these will be transferred to the contractor at an appropriate stage of the contract.

The allocation of risk will depend in part on the particulars of the NEC Option B contract. The NEC contract allows for a proactive partnership approach to managing and delivering design and construction activities to be undertaken. contract length.

Contract length is determined by the final programme and the decision on the final procurement method. The final programme identifies that construction period will commence around the early part of 2023 and will be complete by the end of spring 2024. There may be a break in construction during the summer to minimise the impact of the construction works on the town.

Human resource issues

No significant human resources issues have been identified that could affect the deliverability of the scheme. NYCC will provide personnel to perform the role of project manager and create a small site supervision.

Contract management

The contract will be procured through the NYCC Procurement Unit which have considerable experience in dealing with this type of contract and activity. The works will be supervised by the Council's design team.

The scheme is to be delivered under a structured project management methodology based on PRINCE2 as promoted by the UK Government. This ensures that a robust and structured project management framework is used to successfully manage and effectively deliver the scheme. The Contractor will be subject to the controls, processes and reporting procedures as set out in the Management Case.

MANAGEMENT CASE

MANAGEMENT CASE

INTRODUCTION

This section of the Business Case describes the Management Case for the proposals on Whitby Swingbridge. The chapter aims to demonstrate that the proposal is deliverable, outlining the proposed governance structure, approach to risk management, stakeholder management and communications strategy, project planning framework and the approach to benefits realisation and assurance.

PROJECT ORGANISATION AND GOVERNANCE

The following provides the overarching Whitby Towns Fund Governance and Delivery structure highlighting the Harbourside Public Realm: Whitby Swingbridge scheme and the Management and Delivery role of NYCC.

Figure 6 – Whitby Towns Fund Governance

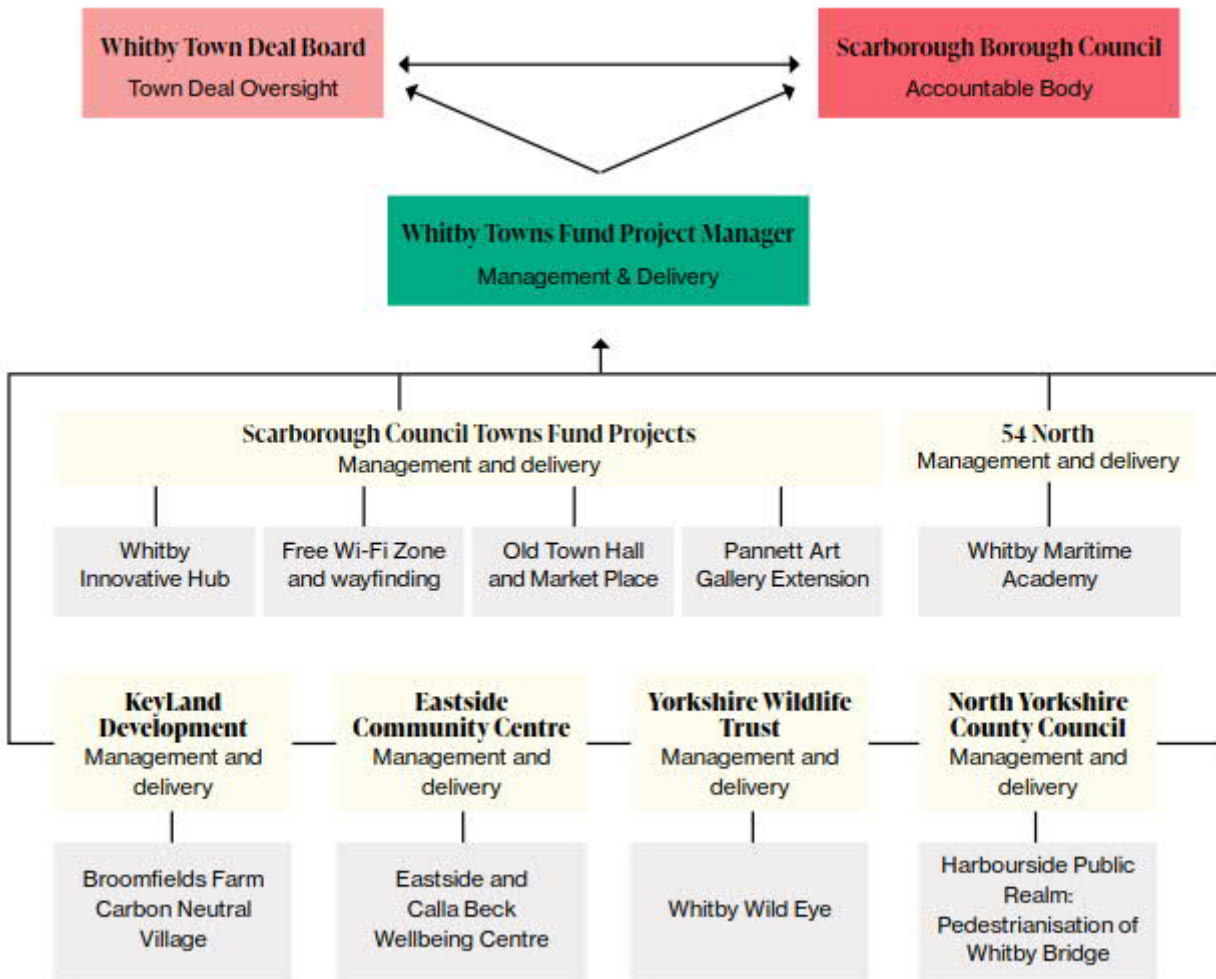


Figure 5. Whitby Towns Fund Governance & Delivery Structure

The Town Deal Board provide strategic oversight for the Whitby Town Fund Programme but is not a formally constituted body. It is a strategic body bringing together private, public and voluntary sectors, working in partnership with the Council. It provides strategic leadership and direction to the development and implementation of the Town Investment Plans (TIPs) and the Towns Fund.

The role of the Whitby Town Board is as follows:

- Oversee the delivery of the TIPs;
- Ensure the programme of interventions within the TIPs are managed and delivered effectively;
- Co-ordinate resources and engage stakeholders where required.

In accordance with the Government’s Town Fund Guidance, the Board is made up of representatives from different local organisations in the public, private and voluntary sectors.

The responsibility for the delivery of the project lies with the Business and Environmental Services (BES) directorate of North Yorkshire County Council and in particular with the Highways & Transportation business unit. The project will be managed to reflect the governance requirements of NYCC.

The project will be organised at 3 levels:

- Senior Responsible Officer – NYCC Area Manager, Richard Marr
- Project Manager – NYCC Improvement Manager, Helen Watson
- Project Team – WSP as NYCC strategic partner undertaking Scheme Development (including design and Business Case development support)

ASSURANCE

Project assurance forms part of the Project Governance framework for the delivery of the scheme. The project assurance role will be undertaken by SBC. The role provides an independent audit and assurance of the project and confirms to the Project Board that the project deliverables are fit for purpose.

Assurance activity is defined in the Public Sector Internal Audit Standards (PSIAS) as “An objective examination of evidence for the purpose of providing an independent assessment on governance, risk management and control processes for the organisation. Examples may include financial, performance, compliance, system security and due diligence engagements”.

In accordance with the Towns Fund Guidance the Council as accountable body should follow its local assurance processes in the preparation of the business cases for the projects contained in the Whitby and Scarborough Towns Fund Programme. The Council should use its own Green Book compliance assurance processes as well as the Local Government and Accountability Framework. This includes projects where business cases are being produced by private and/or public sector partners.

PROGRAMME/SCHEDULE MANAGEMENT

A programme for the scheme has been produced to ensure it meets key project milestones which have been aligned with the availability of funding from the Towns Deal. The programme covers the design and preparation of the scheme through to construction. The programme is a live document that will be reviewed following the completion of each major workstage. However, due to the construction of the scheme required to be complete by 2025/26, as per the Town Deal programme, flexibility in terms of timescale to deliver the preceding stages is extremely limited.

Table 10 – Key Project Milestones

Milestone	Completion Date
Submission of Business Case	February 2022
Funding Decision	Mid June 2022
Surveys and initial design and public consultation	Feb – Aug 2022
Detailed design	Sept - Oct 2022
Preparation of Contract and Tender Documents	November 2022
Tender Process	December 2023
Tender Evaluation	Mid Jan 2023

NYCC approval process to appoint contractor	End Jan 2023
Contract Award Mobilisation	End Feb 2023
Construction	Mar 23 – Mar 24 with a break for the summer season
Scheme Completion	End April 2024
Post Scheme Monitoring and Evaluation	TBC

RISK AND OPPORTUNITIES MANAGEMENT

The Council's Corporate Risk Register will record Council Capital Projects as a risk and will be updated on a regular basis recording a list of any significant risks which may prevent the programme from achieving its priorities, outputs and outcomes. It will hold both strategic and operational risks. The Register identifies the lead individual to manage the risk, identify the controls or mitigation that needs to be in place to continually monitor the risk and record the outcome of any audit review.

The Corporate register is used for reporting and monitoring of risks at a variety of levels and is configured in risk groups aligned to the directorate structure of the Council. It is overseen by the Audit and Risk section, who will also maintain evaluations of Council wide and confidential risks. Key risks are also be recorded in the Council's electronic risk register and are escalated to the Chief Executive and to the Audit Committee if the risk reaches a defined level.

Individual Project Risk Registers will be completed and maintained for each project in the Whitby Towns Fund Programme, which this scheme forms part of. Furthermore, an overall programme delivery risk assessment will be completed and reviewed quarterly at the Town Programme Boards as part of the monitoring process ensuring that identified risks are minimised where possible and do not impact negatively on achieving project priorities, outputs and outcomes.

All risks within the register are assessed and classified across three areas: the probability of the risk occurring and the most likely impact on costs and time which would arise if the risk did occur. The register assesses all risks across the three areas using the evaluation scale detailed. The register then quantifies each of the risks based on the combination of the likelihood of occurrence and the impact.

The key risks that have been identified for this project are listed below:

1. Conflict with utilities or diversions required for both public realm and junction improvement works
2. Design requires further development to reduce unknowns / risks and ensure consistency with adjacent schemes in area
3. Statutory and Other Regulatory Consents required
4. Public opposition to scheme
5. Failure to secure funding to support project delivery
6. Cost escalation – increased scope, materials / inflation increase
7. Existing bridge structure may require upgrades
8. Resources – changes / availability to ensure development and delivery in timescales

BENEFITS, MONITORING AND EVALUATION

As per the DfT guidance, NYCC will undertake a monitoring and evaluation exercise for the scheme. This will assess the delivery process, the actual outcome, as well as benefits and impact of the scheme.

Adopting effective approaches to monitoring and evaluation can reduce:

- Poor decision making and inefficient delivery, by ensuring that valuable lessons are learnt about what works and why/why not.
- Inability to demonstrate accountability, by providing greater transparency to taxpayers about how their money was spent; and

- Unnecessary burdens being placed on businesses from regulatory activities.

The HM Treasury Magenta Book provides the following definition of monitoring and evaluation:

- Monitoring seeks to check progress against planned targets and can be defined as the formal reporting which provides evidence of the spend as well as demonstrating that outputs are successfully delivered, and milestones met; and
- Evaluation is the assessment of the initiative's effectiveness and efficiency during and after implementation. It seeks to measure the causal effect of the scheme on planned outcomes and impacts. It also assesses whether the anticipated benefits have been realised, how this was achieved, or if not, why not.

In March 2013, the DfT published a Monitoring and Evaluation Strategy, setting out a framework for enhancing the generation of good quality monitoring and evaluation evidence which would provide greater accountability and a stronger evidence base for future decision making and communication activities. The strategy outlines that good quality monitoring and evaluation evidence is important for helping make and communicate decisions about where best to target public spending, demonstrating the value for money and benefits which are generated by investment in transport, and learning about how to effectively design and deliver policies, programmes and communications.

It is understood that SBC are responsible for reporting to DLUHC on a quarterly basis progress on the outputs in the Final Monitoring and Evaluation Plans for the duration of the programme plus 3 years (ie. to 2028/29).

It is proposed that the project will be monitored against the aims to:

1. Improve pedestrian and cyclist safety on the Swingbridge during times of high tourist activity.
2. Improve daytime east-west non-motorised connectivity between the two halves of the town.
3. Reduce carbon/carbon-equivalent and pollutants, and improve local air quality
4. Improve connections across communities
5. Enhance the connection of the networks of interesting spaces to explore and places to linger, and improving knowledge of natural assets
6. Enhance the highway network in and around the Swingbridge to improve traffic movements and improve the visitor offer in the centre of the town.
7. Provide an public area to continue to develop key visitor attractions.
8. Support the tourism economy associated with Whitby.

The following provides a Framework for Monitoring and Evaluation which we propose to develop in collaboration with SBC during 2022 to ensure compliance with the requirements under DLUHC for Towns Fund Deals.

OUTPUT/OUTCOME	AGREED PROJECT DEFINITION	DATA TO BE COLLECTED	TOOL/METHOD OF COLLECTION	FREQUENCY OF COLLECTION	RESPONSIBLE OWNER
Total length of pedestrian paths improved	Length of pedestrian ways with improvements (i.e. capacity or quality of the pedestrian path, including beautification and illumination, was improved).	Km of pedestrian way	Monitoring form signed by the Local Authority transport manager or scale plans and visual inspection on completion and tender documents. Reported via highways colleagues based on the agreed business case approved for the scheme	Every 12 months	NYCC
Amount of Public Realm improved	Area of public realm	m2 of public realm	Monitoring form signed by the Local Authority transport manager or scale plans and visual inspection on completion and tender documents. Reported via highways colleagues based on the agreed business case approved for the scheme	Every 12 months	NYCC
# of temporary FT jobs supported during project implementation	The total number of individuals employed to deliver the investment (over the whole project period)	Count (number)	Monitoring form signed by the Section 151 Officer, confirming the job numbers created	Every 6 months	NYCC
Automatic / manual counts of pedestrians and vehicles	DLUHC will only request this data where an LA already has access to it or intends to get access as part of their own ongoing monitoring activities. Where this is the case, DLUHC welcomes a discussion with the LA to understand the nature of the data and to agree a route forward that will strengthen the programme evaluation whilst also minimising the burden on the LA.	Number of pedestrians and vehicles	To be confirmed through discussions with NYCC / SBC / DLUHC (note – existing monitoring does not include for pedestrian data)	Every 12 months	NYCC
Perception analysis of the successfully delivered scheme	Data to be collected through consultation with local stakeholder and members of the public to illustrate local perception of relative success of scheme	Sentiment, demographic, and engagement data	Public facing events, questionnaire forms, digital consultation platforms, stakeholder engagement workshops. To be confirmed with partner organisations	Ongoing	NYCC

APPENDIX A – PROPOSED DESIGN

APPENDIX B – BILL OF QUANTITIES

Whitby Swing Bridge Public Realm - Indicative Feasibility Costing January 2022 (Price Base Q2 2021) - ISSUE

Item No.	Description	Unit	Rate	Quantity	Amount
1	Existing total area for strip out / site clearance	m2			
2	Excavation of existing paved areas and disposal	m3			
3	Primary paving	m2			
4	Secondary paving	m2			
5	Road re-surfacing	m2			
6	Edging	m			
7	Trees in soft	no			
8	Trees in hard	no			
9	Shrub / herbaceous / SuDS	m2			
12	Topsoil	m2			
13	Feature wall	no			
14	Paving insert features	no			
15	Raised planter areas, approx. construction 400mm high	m2			
17	Benches	no			
18	Metal Planter 600 x 600	no			
19	Bins	no			
20	Signage finger post	no			
21	Cycle stands	no			
22	Lighting columns approx. 3m height @ 15m centres	no			
23	Ducting chambers electrical works cost per column	no			
24	Interpretation board/ signage	no			
25	Allowance for road markings	item			
	Signals upgrade allowance (Swing bridge)				
	Junction upgrade allowance (A171 / Spittal Bridge)				
26	Contingency for non-measured items	%			
	Works Sub-Total				£918,680
	Preliminaries	45%			
	Professional Fees	15%			
	Allowance for Statutory Undertakers	20%			
	Total exc Risk and Inflation				£1,715,635
	Risk	25%			
	Total including Risk (Optimism Bias (OB) inc in Economic Case only)				£2,144,543
	Inflation	8%			
	Total Cost inc Inflation				£2,316,107

Exclusions:

Demolition of existing buildings / structures
 Land and compensation
 Service infrastructure to development areas
 VAT at current rate

APPENDIX C – RISK REGISTER

Project Risk, Issue and Opportunity Register

Project Risk, Issue and Opportunity Register																
Project Number		70089164		Date		01/02/2022		Version		0		WSP				
Project Title		Whitby Swingbridge Public Realm		Client		North Yorkshire County Council		Project Manager		Stephanie Deuchans						
Risk ID	Hazard/Risk Name	Effect/Consequence	Open / Closed	Risk Owner	Initial Risk Exposure									Spreadsheet Construction Risk Value		
					Probability			Cost Impact (£k)			Risk Rank (P x C)	E236,095	E417,585	E399,835		
Rank	%	Cat	Min	Most Likely	Max	Min	Most Likely	Max								
1	Failure to secure DFT funding in time to commence solution.	Project will not progress.	Open	NYCC / SBC	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
2	Change in funding source. Government / SBC / NYCC freeze or change to funding source	Project will not progress.	Open	NYCC / WSP	3	M	36%	2	L	11,500	17,250	23,000	6	4,083	6,124	8,165
3	Public opposition to the scheme or plans.	Delays to the project. project is pulled.	Open	NYCC / WSP	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
4	Business case or FBC unsuccessful or BCR unattractive.	Business case or FBC unsuccessful or BCR unattractive.	Open	NYCC / SBC / WSP	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
5	Public relations failure to present a consistent message leads to adverse public reaction.	Adverse public reaction loss of support for the project resulting in delays or project being pulled.	Open	NYCC / SBC	3	M	36%	2	L	11,500	17,250	23,000	6	4,083	6,124	8,165
6	Risk that the cost of the preferred option(s) will be greater than any available funding and difficulty obtaining funds to deliver the scheme.	Difficulty in obtaining funds to deliver the scheme leading to delays or project being pulled.	Open	NYCC / WSP	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
7	Delay to scheme as a result of delay to funding.	Delay to the project. loss of resourced within NYCC / SBC and WSP. Reputational damage due to public perception. Leading to adverse reactions from the public.	Open	NYCC / SBC	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
8	Programme delays, cost escalation and reputational damage.	Programme delays, cost escalation and reputational damage. Risk workshop and regular reviews of risk register. Get NYCC buy in to manage and report on their risks.	Open	NYCC / WSP	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
9	Scope changes	Scope changes leading to redesign, increased cost and delays. Following on from consultation both internal and external stakeholders.	Open	NYCC	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
10	Adverse weather conditions greater than 1 in 10 event during construction.	Adverse weather conditions greater than 1 in 10 event during construction will delay programme and put at risk funding if there are time constraints on spend.	Open	Contractor / NYCC	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
11	Conflict with utilities or diversions required for both public realm and junction improvement works.	Conflict with utilities or diversions required for both public realm and junction improvement works. Delaying start date on site putting funding at risk if there are time constraints.	Open	NYCC / WSP	4	H	66%	4	H	69,000	92,000	115,000	18	45,195	60,260	75,325
12	Existing bridge condition and maintenance requirement of the structure.	Existing bridge condition and maintenance requirement of the structure. Any upgrades may delay design / construction putting programme / costs at risk.	Open	NYCC	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
13	Change to the delivery team (including NYCC & SBC).	Timescales and quality of work may be affected due to the staff member in question not being available. New staff require time to pick up the scheme, quality assurance at risk.	Open	NYCC / SBC / WSP	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
14	Access to design team members may become difficult if scheme is delayed.	Teams members may be transferred to new schemes losing knowledge of the project.	Open	WSP	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
15	Insufficient time to manage project risks and issues in line with CDM 2015.	Insufficient time to manage project risks and issues in line with CDM 2015. Significant risks potentially passed through design to Contractor.	Open	NYCC	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
16	Covid 19	New measures from Central Government / outbreaks.	Open	All	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
17	Scheme requires Statutory or Other Regulatory consents	Delay to programme and associated additional development costs to provide relevant documentation / applications and gain associated approvals before construction	Open	NYCC	3	M	36%	4	H	69,000	92,000	115,000	12	24,495	32,660	40,825
18	Public Realm designs compiled in isolation of emerging strategies - no consideration of emerging strategies such as Wayfinding	Conflict with emerging strategies and lack of coordination. Potential reputational damage, redesign required resulting in slight programme delay	Open	NYCC / WSP	3	M	36%	2	L	11,500	17,250	23,000	6	4,083	6,124	8,165
19	Public Realm designs compiled in isolation of wider elements - no input or consideration of wider elements, including stats and drainage	Conflict with utilities, diversions, overhead lines, drainage design etc. May result in redesign and consequent knock-on effects to programme, costs, potential re-consultation requirements. Potential for reputational damage.	Open	NYCC / WSP	4	H	66%	3	M	23,000	46,000	69,000	12	15,065	30,130	45,195
20	Public Realm designs compiled in isolation of traffic/highways - no traffic modelling or highways design input provided	Conflict with highway design, drainage design, results of highway modelling etc. Likely to result in redesign and consequent knock-on effects to programme, costs, potential re-consultation requirements. Potential for reputational damage.	Open	NYCC / WSP	5	VH	90%	3	M	23,000	46,000	69,000	15	20,700	41,400	62,100
21	Results of Bridge Closure Trial not fully considered	No decision on potential opening times/ access to the swing bridge yet made - results of bridge closure not fully analysed. May lead to redesign resulting in potential programme delays/funding risk	Open	NYCC / WSP	3	M	36%	3	M	23,000	46,000	69,000	9	8,165	16,330	24,495
22	Public Realm designs compiled in isolation of lighting - i.e. no input or consideration of existing/ potential lighting requirements.	Possible redesign/ programme delays/ cost implications	Open	NYCC / WSP	3	M	36%	2	L	11,500	17,250	23,000	6	4,083	6,124	8,165