Local Highways Maintenance Challenge Fund

Department for Transport

Application Form: bids for funding in 2019/20

The level of information provided on this form should be proportionate to the size and complexity of the works proposed. An Excel data proforma should also be completed.

Note that DfT funding is a maximum of £5 million per project for bids in 2019-20. An individual local highway authority may apply to bid for only one scheme. Funding will be provided in 2019/20, but it is recognised that construction may go into 2020/21 as well. The closing date for bids is 31 October 2019.

For schemes submitted by a Combined Authority for component authorities a separate application form should be completed for each scheme, then the CA should rank them in order of preference.

Applicant Information

Local authority name: Southend-on-Sea Borough Council

Bid Manager Name and position:

Neil Hoskins– Group Manager - Major Projects and Strategic Transport Policy

Contact telephone number: 01702 212403

Email address: NeilHoskins@southend.gov.uk

Postal address: Southend-on-Sea Borough Council
Civic Centre,
Victoria Avenue,
Southend on Sea, Essex

Postcode SS2 6ER

Combined Authorities N/A

Name and position of Combined Authority Bid Co-ordinator: N/A

Contact telephone number: N/A Email address: N/A

When authorities submit a bid for funding to the Department, as part of the Government's commitment to greater openness in the public sector under the Freedom of Information Act 2000 and the Environmental Information Regulations 2004, the local highway authority must also publish a version excluding any commercially sensitive information on their own website within two working days of submitting the final bid to the Department.

Please specify the weblink where this bid will be published: www.southend.gov.uk

SECTION A – Description of works

A1. Project name: BELTON WAY EAST- HIGHWAY PROTECTION SCHEME

A2. Headline description:

Proposed Project Start date: 1 DECEMBER 2019

Proposed Construction Start date: 1 JUNE 2020

Estimated Completion date: 30 SEPTEMBER 2020

Brief description of project: REPLACEMENT OF DEFECTIVE RETAINING STRUCTURE ALONG PART OF BELTON WAY EAST, LEIGH ON SEA

PREFERRED OPTION: Option 2: Sheet pile wall c.350m long with anchors.

A3. Geographic area:

Please provide a short description of the location referred to in the bid (in no more than 50 words)

Location:

The retaining structure is located on and supports Belton Way East, a public highway running diagonally through the existing seafront cliffs above Leigh Railway Station, a public transport interchange (train, pedestrian, cycle, bus, taxi). It also gives access to the public waste transfer site and a wildlife habitat site.

OS Grid Reference: 583491,185895

Postcode: SS9 2ET

Location Map: Attached reference: Location Map SBCC10784-100-SBC-LP-C-0000-A

You might wish to append a map showing the location (and route) of the proposed project, existing transport infrastructure and other points of particular interest to the bid.

A4. Type of works (please tick relevant box): DfT funding of up to £5 million in 2019/20:

☒ **Structural maintenance, strengthening or renewal of bridges, viaducts, retaining walls or other key structures, footbridge or cycle bridge renewal**

☐ Major maintenance, full depth reconstruction of carriageways, structural maintenance of tunnels

☐ Resurfacing of carriageways including improvements to footways or cycleways that are within the highway boundary

☐ Renewal of gullies and replacement of drainage assets

SECTION B – The Business Case

B1. The Financial Case – Project Costs and Profile

Before preparing a proposal for submission, bid promoters should ensure they understand the financial implications of developing the project (including any implications for future resource spend and ongoing costs relating to maintaining and operating the asset), and the need to secure and underwrite any necessary funding outside the Department's maximum contribution.

Please complete the table below. Figures should be entered in £000s (i.e. £10,000 = 10).

Funding profile (Nominal terms)

£000s ex VAT	***2019-20***		***2020-21***
DfT Funding Sought	*Works cost:* *Fees:* ***TOTAL:***	*£ 3140* *£ 100* ***£3240***	*DfT funding not available in 2020-21*
LA Contribution	*£100(SBC)* *£100 (LTP IT)*		*£160 (LTP IT)*
Other Third Party Funding	*Nil*		*Nil*

Notes:
1) Department for Transport funding will be granted in the 2019-20 financial year but local highway authorities may carry that funding over to following financial years if necessary.
2) There is no specific amount for a local contribution by the local authority and/or a third party but if this is proposed please state what this is expected to be.

B2. Local Contribution / Third Party Funding

Please provide information on the following points (where applicable):

The non-DfT contribution may include funding from the local authority or a third party. This should include evidence to show how any third party contributions are being secured, the level of commitment and when they will become available:

The Borough Council will contribute a total of £360k in the scheme in order to fund essential works, this represents approximately 10% of the total scheme costs of £3.6 .million.

Please list any other funding applications you have made for this project or variants of it and the outcome of these applications, including any reasons for rejection (e.g. applications made through any similar competition):

No other funding applications have been made for this scheme or variants.

B3. Strategic Case (sections (a) to (g) below)

This section should **briefly** set out the rationale for making the investment and evidence of the existing situation, set out the history of the asset and why it is needs to be repaired or renewed. It should also include how it fits into the overall asset management strategy for the authority **and why it cannot be funded through the annual Highways Maintenance Block Funding grant.**

a) What are the current problems to be addressed by the proposed works? (Describe economic, environmental, social problems or opportunities which will be addressed by the scheme).

Belton Way provides an important strategic transport link to Leigh-on-Sea Travel Interchange which provides access to Rail, Bus, Taxi, Cycle, Pedestrian and Car Parking facilities. Leigh Train Station has a passenger usage of over 2.2 million footfall a year. Belton Way also provides access to a Household Waste Recycling Centre, which has over 119,700 vehicle trips per annum. Wheeled Sports Facility, Nature Reserve, Leigh Sailing Club and other commercial premises.

The road which runs diagonally through the seafront cliff and slope is supported by a piled retaining wall. During statutory highway inspections it is clear the road, footway and retained slope show signs of considerable long term movement.

Southend Borough Council (SBC) requested expert advice from its Consultant Engineer partner; Campbell Reith; and they have detailed the following information.

The continued ground movement due to slope instability has affected the integrity of Belton Way and is deforming the entire road and footway structure which is creating a danger to all highway users.

During statutory highway inspections a number of defects were identified in relation to the road and footway these have concluded that significant road and footway repairs are required to ensure that Belton Way East remains open to the public.

Working with our appointed consultant Campbell Reith we have undertaken a site specific pile investigation report and intrusive ground investigation data. In addition, we have also been taken to the opportunity to carry out desk study review of available information including historic maps, Lidar data, BGS data, and indicative Google Earth cross sections. To date the Council has, as a result of ground investigation and remedial (carried out in partnership with Norfolk Partnership Laboratory) works spent circa **£75K**. See attached ground investigation and piling reports as Appendices 1 & 2.

The ground conditions within the area consist of soft to firm cohesive landslip materials to a depth of approximately 6m depth underlain by undisturbed stiff to very stiff London Clay Formation. Dry conditions were typically encountered in the exploratory holes. The existing information indicates that the subject site and nearby areas both upslope and downslope, suffered in the past from slope instability.

The existing c.450mm diameter individual piles supporting Belton Way East and located at a nominal distance of c.2.50m have moved off their vertical plane towards the south due to ground movement. Cracking of the nearby footpath and deflection of the adjacent railing was also noted to the south at the proximity of the distressed piles. The recent pile investigation report, has is indicated that the existing piles supporting Belton Way East are defective at a depth of 5-6m due to slope instability

The main cause of slope instability at the site appears to be the poor engineering properties of the top 5-6m of the landslip materials which tend to fail when they are cut steeper than 11°-12° and left unsupported in the long term. The ground instability appeared to be further intensified in the late 1930's by road cuts for the construction of the local highways including Belton Way East. Most likely, past slope instability events occurred during adverse weather conditions i.e. during wet seasons or prolonged periods of rain.

b) Why is the asset in need of urgent funding?

The continued movement of the road and footway is deforming the carriageway which creates a danger to all road users, members of the public and a potential threat to the railway line at the bottom of the slope.

Given the poor ground conditions and the potentially damaged condition of the piled wall supporting Belton Way East, a future major slope instability event at the location cannot be ruled out. Even without this major occurrence, ground movement is likely to continue, resulting in potential damage to Council owned infrastructure assets, utility services and rail infrastructure.

Underground services present in the vicinity would also be affected. Due to the distance of the railway line to the south (c.100m from the potentially damaged piled wall) we cannot rule out that the latter will not be affected in the long-term.

Failure to address the current slope stability issues at Belton Way could have a detrimental impact on the surrounding highway network with road closures and diversions necessary to ensure that access to vital transport links are retained.

c) What options have been considered and why have alternatives have been rejected?

The most appropriate remedial options required for securing slope stability on-site should consider a stiff support ground retaining system. 4 Options have been considered:

Option 1: Contiguous concrete piled retaining wall c.350m long with anchors, using 600mm diameter CFA piles at 750mm centres to replace the existing damaged piled wall.

Option 2: Sheet pile wall c.350m long with anchors to replace the existing damaged piled wall.

Option 3: Soil nailing works immediately downslope from the currently damaged piled wall is a further possible option provided it can be designed to provide the stiff support needed for the support of Belton Way East, it would however require extensive removal of dense vegetation.

Option 4: A gravity retaining wall was considered and rejected because it would not be technically feasible at the subject site due to the anticipated depth of the ground slippage (at least 6m below ground level), the significant depth of excavations required and the need for temporary support during construction.

Based on all the potential available options we have rejected Options 1, 3&4 based on the following:

Option1 – Contiguous concrete piled retaining wall – although a similar option as number 2, for this option to provide a continuous piled structure would require extensive preparation work and extended timescales, which when reflected in the current level of deterioration of the site is unacceptable.

Option 3 - The soil nailing option was rejected because there could be design limitations and it would require extensive removal of dense vegetation. The removal of extensive vegetation rules this option out as the area contains the Deptford Pink plant which is classified as endangered and is currently protected in the UK under the Wildlife and Countryside Act, 1981.

Option 4 – The Gravity retaining wall is not be technically feasible due to the anticipated depth of the ground slippage at this site. In addition, it would require a significant depth of excavation and associated temporary support during construction, which potentially puts a further risk of ground movement at the time construction.

Proposed Option chosen because

Therefore we have selected **Option 2**, which is similar in concept to option 1, providing a continuous piled support. However, it offers the quickest remedial solution (deciding factor) and reduced damage to the surrounding vegetation and therefore has been selected as the appropriate option in this case.

d) What are the expected benefits / outcomes?

Reinstatement of damaged retaining wall and protection of Belton Way East and associated footpaths and utilities.

Immediate protection, slope stability and reduced ground movement risk and further protection of downslope infrastructure and railway line.

e) How it fits into the overall asset management strategy for the authority:

The residents of and visitors to Southend expect safe and reliable journeys. To that end SBC have produced a Highways Infrastructure Asset Management Plan (HIAMP). It is designed to manage the risk levels, infrastructure investment, and Council's strategic goals and deliver the desired day to-day levels of service.

The plan sets out the Council's infrastructure asset management approach, and in particular, managing risks associated with highway infrastructure assets.

The Highway Asset Management Strategy is the Council's primary highway asset planning tool to ensure that the Highway Asset Management Policy is delivered and supports the wider objectives. It establishes the Council approach to prioritising, mitigating and managing critical risks associated with the highway network and ensuring that the network is resilient to major incidents. This area of the network has been identified as a critical risk of failure. There are potentially many key stakeholders that any potential failure in this area would affect, including residents, statutory undertakers, local businesses, other travel operators (Rail) and Visitors/tourists.

Well Managed Highway Infrastructure advises that good risk management requires identification of asset risks, assess their impact and probability of occurrence. Risk management also includes calculating the risk factors, defining the category of risk and timescales to rectify any potential defects. Risk assessment means quantifying how likely a risk is to occur and how damaging the effects will be if it does. We believe we have followed the key requires of our plan, the relevant Codes of Practice and our risk management process to identify this scheme as a key risk area that requires immediate remedial works.

Why it cannot be funded through the annual Highways Maintenance Block Funding grant:

The Highways Maintenance Block has insufficient funds to carry out the remedial works as well as the highways maintenance programme.

f) What will happen if funding for this scheme is not secured? Would an alternative (lower cost) solution be implemented (if yes, please describe this alternative and how it differs from the proposed scheme)?

In view of the high slope instability risk there is no low cost alternative solution. In the short term, survey methods should be implemented to continuously monitor ground movements; trigger levels for further actions should be established with regard to public safety.

Having identified areas where the continuous pile cap is not present a reduced scheme could be implemented to prevent any further movement.

This would be a piecemeal approach to remedial works but would not resolve the ongoing slope instability and increases the risk of a slope event.

A robust construction plan and funding should be secured to retain further ground movements and protect nearby infrastructure as discussed previously.

Maintenance of the already damaged retaining wall is not an option.

g) What are the economic, environmental and social impacts of completing this project?

Economic Benefits:

If a 'Do Nothing' option is pursued, following the WebTag 30 year appraisal duration, the economic cost of a slope failure would be around £13.9M to the local economy. This does not take into account the additional cost should the railway line between Leigh and Shoeburyness become affected, with the number of footfall that uses those stations (based on 2017/18 figures of 12.4 million trips), this will have a big impact, not just locally but on the wider economy to the Borough.

Therefore by carrying out the scheme there will be no further repair work required to this road for the foreseeable future and the proposed solution requires nominal expenditure on future maintenance.

Social Benefits:

Risks to public safety significantly reduced. Access to rail station Interchange maintained in use whether by cycle, bus, car or walking. Avoidance of unexpected traffic disruption for commuters to Leigh Railway station and visitors to historic Leigh-on-Sea, users of the Wheeled Sports Facility, Nature Reserve and Leigh Sailing club.

Environmental benefits:

Access to the Household Waste Recycling Centre will be retained to ensure that Southend continues to deliver our commitment to recycling, access to the Two Tree Island Nature Reserve will be maintained of which the eastern half is within the SSSI for Essex. Vehicles not having to find alternative ways of moving around this part of Leigh, thereby reducing NO2 and carbon emissions. In addition, any slope failure would threaten the Deptford Pink plant which is classified as endangered and is currently protected in the UK under the Wildlife and Countryside Act, 1981.

B4. Equality Analysis

Has any Equality Analysis been undertaken in line with the Equality Duty? **Yes**

B5. The Commercial Case

This section categorises the procurement strategy that will be used to appoint a contractor and, importantly for this fund, set out the timescales involved in the procurement process to show that delivery can proceed quickly.

Procurement Strategy and timescale: The works will be designed by specialist geotechnical Engineers and delivered through a Lump Sum Contract

Timescale:

Funding secured milestone :	1 December 2019
Desk study & Surveys	)
Design period	)
Consents period	) 24 weeks
Tender period (framework)	)
Contract let	)
Contract Works inc risk allowance	16-18 weeks
Works completion milestone	30 September 2020
Defects Liability period is additional	

What is the preferred procurement route for the scheme? For example, if it is proposed to use existing framework agreements or contracts, the contract must be appropriate in terms of scale and scope.

Framework contract ☒ The Councils Term Contract will be benchmarked against the Eastern Highway Alliance and the framework that offers best value will be selected.

Direct labour ☐

Competitive tender ☐

**It is the promoting authority's responsibility to decide whether or not their scheme proposal is lawful; and the extent of any new legal powers that need to be sought. Scheme promoters should ensure that any project complies with the Public Contracts Regulations as well as European Union State Aid rules, and should be prepared to provide the Department with confirmation of this, if required. An assurance that a strategy is in place that is legally compliant and is likely to achieve the best value for money outcomes is required from your Section 151 Officer below.*

B6. Delivery of project

Are any statutory procedures, such as planning permission, required to deliver the project? If yes please provide details below;

NO

Details of statutory procedures before works can commence

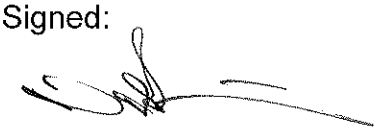
The only statutory processes are temporary restrictions during construction, notices to comply with the Health & Safety at Work Act and CDM

SECTION C: Declarations

C1. Senior Responsible Owner Declaration

As Senior Responsible Owner for Belton Way East – Highway Protection Scheme I hereby submit this request for approval to DfT on behalf of Southend-on-Sea Borough Council and confirm that I have the necessary authority to do so.

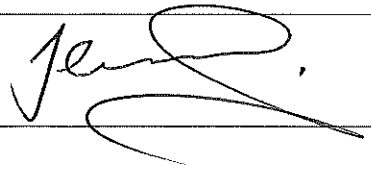
I confirm that Southend-on-Sea Borough Council will have all the necessary powers in place to ensure the planned timescales in the application can be realised.

Name: Neil Hoskins	Signed: 
Position: Group Manager	

C2. Section 151 Officer Declaration

As Section 151 Officer for Southend-on-Sea Borough Council I declare that the scheme cost estimates quoted in this bid are accurate to the best of my knowledge and that Southend-on-Sea Borough Council

- has allocated sufficient budget to deliver this scheme on the basis of its proposed funding contribution
- will allocate sufficient staff and other necessary resources to deliver this scheme on time and on budget
- accepts responsibility for meeting any costs over and above the DfT contribution requested, including potential cost overruns and the underwriting of any funding contributions expected from third parties
- accepts responsibility for meeting any ongoing revenue requirements in relation to the scheme
- accepts that no further increase in DfT funding will be considered beyond the maximum contribution requested
- has the necessary governance / assurance arrangements in place
- has identified a procurement strategy that is legally compliant and is likely to achieve the best value for money outcome
- will ensure that a robust and effective stakeholder and communications plan is put in place

Name: J. CHESTERTON	Signed: 

Submission of bids:

The deadline for bid submission is 5pm on **31 October 2019**
Successful bids for Challenge Fund Tranche 2B are to be funded in 2019/20.
An electronic copy only of the bid including any supporting material should be submitted to:

roadmaintenance@dft.gov.uk copying in Paul.O'Hara@dft.gov.uk

LOCATION MAP: SBCC10784-100-SBC-LP-C-0000-A